Los Angeles County Air Pollution Control District, Rules in the Antelope Valley Air Quality Management District SIP

The following text is an EPA transcription of the SIP material that was submitted by the state. If you would like to inspect a scan of the source material for this transcription, please contact the EPA Region 9 contact listed at https://www.epa.gov/air-quality-implementation-plans/find-regional-contact-air-quality-sipsfipstips.

Rule 53. Sulfur Compounds – Concentration. (Submitted to the EPA on 6/30/1972)

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge, 0.2 per cent by volume calculated as sulfur dioxide (SO_2).

Rule 58. Disposal of Solid and Liquid Wastes. (Submitted to the EPA on 6/30/1972)

a. A person shall not burn any combustible refuse in any incinerator except in a multiple-chamber incinerator as described in Rule 2 (p), or in equipment found by the Air Pollution Control Officer in advance of such use to be equally effective for the purposes of air pollution control as an approved multiple-chamber incinerator. Rule 58 (a) shall be effective in the Los Angeles Basin, and in the Upper Santa Clara River Valley Basin on January 1, 1972. In all other areas of Los Angeles County, this Rule shall be effective on January 1, 1973.
b. A person shall not discharge into the atmosphere from any incinerator or other equipment used to dispose of combustible refuse by burning, having design burning rates greater than 100 pounds per hour, except as provided in subsection (d) of this rule, particulate matter in excess of 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions. Any carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of carbon dioxide (CO_2).
c. A person shall not discharge into the atmosphere from any equipment whatsoever, used to process combustible refuse, except as provided in subsection (d) of this rule, particulate matter in excess of 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions. Any carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of carbon dioxide (CO_2).
d. A person shall not discharge into the atmosphere from any incinerator or other equipment used to dispose of combustible refuse by burning, having design burning rates of 100 pounds per hour or less, or for which an application for permit is filed before January 1, 1972, particulate matter in excess of 0.3 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions and shall not discharge particles which are individually large enough to be visible while suspended in the atmosphere. Any carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of carbon dioxide (CO_2).

Rule 67. Fuel Burning Equipment. (Submitted to the EPA on 6/30/1972)

A person shall not build, erect, install or expand any non-mobile fuel burning equipment unit unless the discharge into the atmosphere of contaminants will not and does not exceed any one or more of the following rates:

1. 200 pounds per hour of sulfur compounds, calculated as sulfur dioxide (SO_2);

2. 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO_2);

10 pounds per hour of combustion contaminants as defined in Rule 2m and derived from the fuel.

For the purpose of this rule, a fuel burning equipment unit shall be comprised of the minimum number of boilers, furnaces, jet engines or other fuel burning equipment, the simultaneous operations of which are required for the production of useful heat or power.

Fuel burning equipment serving primarily as air pollution control equipment by using a combustion process to destroy air contaminants shall be exempt from the provisions of this rule.

Nothing in this rule shall be construed as preventing the maintenance or preventing the alteration or modification of an existing fuel burning equipment unit which will reduce its mass rate of air contaminant emissions.

(**Adopted:** 2/4/77; **Amended:** 4/1/77; **Readopted by Statute:** 07/01/97; **Amended:** 8/19/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05)

RULE 101
Title

These rules and regulations shall be known as the rules of the Antelope Valley Air Quality Management District.

[SIP: Submitted as amended 8/19/97 on 3/10/98; Approved _____, 40 CFR 52.220(c)(41)(xvi)(A); Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(c)]

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(**Adopted:** 2/4/77; **Amended:** 4/1/77; **Amended:** 2/2/77; **Amended:** 11/4/88; **Amended:** 7/9/93; **Amended:** 1/17/95; **Readopted by Statute:** 07/01/97; **Amended:** 8/19/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05)

RULE 102
Definition of Terms

Except as otherwise specifically provided in these rules and except where the context otherwise indicates, words used in these rules are used in exactly the same sense as the same words are used in Division 26 of the Health and Safety Code.

(A) Agricultural Burning - Open outdoor fires used in agricultural operations in the growing of crops or raising of fowls or animals, or open outdoor fires used in forest management, range improvement, or the improvement of land for wildlife and game habitat or disease and pest prevention. Agricultural burning also includes open outdoor fires used in the operation or maintenance of a system for the delivery of water for the purposes specified above.

(B) Agricultural Operations - Any operation occurring on a ranch or farm directly related to the growing of crops, or raising of fowls or animals for the primary purpose of making a profit or for a livelihood.

(C) Agricultural Wastes - Unwanted or unsalable materials produced wholly from agricultural operations, other than forest or range management operations, directly related to the growing of crops or animals for the primary purpose of making a profit or for a livelihood. The term does not include wastes created by land use conversion to non-agricultural purposes unless the destruction of such waste by open outdoor fire is ordered by the County or State Agricultural Commissioner upon his determination that the waste is infested with infections transmittable or contagious plant disease which is an immediate hazard to agricultural operations conducted on adjoining or nearby property.

(D) Air Pollution Control Officer (APCO) - The person appointed to the position of Air Pollution Control Officer pursuant to the provisions of Health and Safety Code §40750 and his or her designee.

(E) Air Contaminant Or Air Pollutant - Any discharge, release, or other propagation into the atmosphere directly or indirectly caused by man and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matters, acids or any combination thereof.

(F) Atmosphere - The air that envelopes or surrounds the earth. Where air pollutants are emitted into a building not designed specifically as a piece of air pollution control equipment, such emission into the building shall be considered an emission into the atmosphere.

(G) Basic Equipment - Any article, machine, equipment or contrivance which causes the issuance of air contaminants.

(H) Breakdown - A condition caused by an accidental fire or non-preventable mechanical or electrical failure.

(I) Combustible Refuse - Any solid or liquid combustible waste material containing carbon in a free or combined state.

(J) Combustion Contaminants - Particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state.

(K) Compliance Schedule - The date or dates by which a source or category of sources is required to comply with specific emission limitations contained in any air pollution rule, regulation, or statute and with any increment of progress toward such compliance.

(L) Control Equipment - Air pollution control equipment which eliminates, reduces or controls the issuance of air contaminants.

(M) District - The Antelope Valley Air Quality Management District that includes the geographical area described in District Rule 103.

(N) Dusts - Minute solid particles released into the air by natural forces or by mechanical processes including, but not limited to, crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, and sweeping.

(O) Executive Officer - The APCO of the Antelope Valley Air Quality Management District or his or her designee.

(P) Equipment means any article, machine, or other contrivance.

(Q) Exempt Compounds - Any compound listed in 40 CFR 51.100(s)(1). *[Suggested by comment letter of 3/17/05 for consistency with other rules. Derived from Rule 1301(ZZZ)]*

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[Avoids conflict with newer definitions of VOC in various Rules]

(R) Fleet Vehicles means gasoline-powered motor vehicles as defined by §415 of the Vehicle Code and which are operated from one business address.

(S) Fugitive Dust means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of man.

(T) Gasoline - Any petroleum distillate having a Reid Vapor Pressure of 200 mm Hg (3.9 pounds per square inch), or greater.

(U) Hearing Board - The Hearing Board of the Antelope Valley Air Quality Management District.

(V) Increments Of Progress - Steps to be taken by an owner or operator to bring a source of air contaminants into compliance. (See definition of "Schedule of Increments of Progress.")

(W) Loading Facility - Any aggregation or combination of organic liquid loading equipment which is both possessed by one person, and located so that all the organic liquid loading outlets, for such aggregation or combination of loading equipment can be encompassed within any circle of 90 meters (295 feet) in diameter.

(X) Motor Vehicle - A vehicle which is self-propelled.

(Y) Multiple-Chamber Incinerator - Any equipment, structure or part of a structure, used to dispose of combustible refuse by burning, consisting of three or more refractory lined combustion chambers, physically separated by refractory walls, interconnected by gas passage ports or ducts.

(Z) Oil-Effluent Water Separator - Any tank, box, sump or other container in which any petroleum or product thereof, floating on or entrained or contained in water entering such tank, box, sump, or other container, is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.

(AA) Organic Material - A chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.

(BB) Organic Solvents - Organic materials which are liquids at standard conditions~~.~~ and which are used as dissolvers, viscosity reducers or cleaning agents, except that such material exhibiting a boiling point higher than 104^{o}C (219^{o}F) at 0.5 mm Hg absolute pressure or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 104^{o}C (219^{o}F).

(CC) Particulate Matter - Any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(DD) PPM - Parts per million by volume.

(EE) Person - Any individual, firm, association, organization, partnership, business trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local governmental agency or public district or any other officer or employee thereof. Person also means the United States or its agencies to the extent authorized by Federal law.

(FF) Photochemically Reactive Solvent - Any solvent with an aggregate of more than twenty percent (20%) of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of solvent:

(a) A combination of hydrocarbons, alcohols, aldehydes, ethers, esters or ketones having an olefinic or cycloolefinic type of unsaturation except perchloroethylene: 5 percent;

(b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene, methyl benzoate and phenyl acetate: eight percent (8%);

(c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: twenty percent (20%).

Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds, it shall be considered as a member of the most reactive chemical group, that is, that group having the least allowable percent of the total volume of solvents.

(GG) PM-10 - The particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by applicable State and Federal reference test methods.

(HH) Process Weight - The total weight of all materials introduced into any specific process which may discharge contaminants into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid gaseous fuels and air will not.

(II) Process Weight Per Hour - The total process weight divided by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle.

(JJ) Rebuilt Equipment - Any contrivance or its components which have undergone repair or replacement of parts and which are subject to air pollution control requirements.

(KK) Reduction Of Animal Matter - Any heated process, used for rendering, cooking, drying, dehydrating, digesting, evaporating and protein concentrating of animal matter.

(LL) Regulation - One of the major subdivisions of the Rules of the Antelope Valley Air Quality Management District.

(MM) Rule - A rule of the Antelope Valley Air Quality Management District.

(NN) Schedule Of Increments Of Progress - A statement of dates when various steps are to be taken to bring a source of air contaminants into compliance with emission standards and shall include, to the extent feasible, the following:

(a) The dates of submittal of the final plan for the control of emissions of air contaminants from that source to the District.

(b) The date by which contracts for emission control systems or process modifications will be awarded, or the date by which orders will be issued for the purchase of component parts to accomplish emission control or process modification.

(c) The date of initiation of on-site construction or installation of emission control equipment or process change.

(d) The date by which on-site construction or installation of emission control equipment or process modification is to be completed.

(e) The date by which final compliance is to be achieved.

(f) Such other dates by which other appropriate and necessary steps shall be taken to permit close and effective supervision of progress toward timely compliance.

(OO) Small Business - A business which is independently owned and operated and meets the following criteria, or if affiliated with another concern, the combined activities of both concerns shall meet these criteria:

(a) the number of employees is ten (10) or less; and

(b) the total gross annual receipts are $500,000 or less; or

(c) not-for-profit training center.

For the purpose of qualifying for assistance offered by the District's Small Business Assistance Office only, a small business means a business with total gross annual receipts of $5,000,000 or less, or a business with a total number of employees of 100 or less.

(PP) Solid Particulate Matter - Particulate matter which exists as a solid at standard conditions.

(QQ) Source Area - That specified geographic area in which air contaminants are emitted.

(RR) Standard Conditions - A gas temperature of 60^{o}F and a gas pressure of 760 mm Hg (14.7 pounds per square inch) absolute.

(SS) Submerged Fill Pipe - Any fill pipe the discharge opening of which is completely submerged when the liquid level is 15 centimeters (6 inches) above the bottom of the container; or when applied to a container which is loaded from the side, it means any fill

pipe the opening of which is entirely submerged when the liquid level is 45 centimeters (18 inches) above the bottom of the container.

(TT) Vehicle - A device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved by human power or used exclusively upon stationary rails or tracks.

(UU) Volatile Organic Compound (VOC) - Any volatile compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds as defined in section (Q) above. *[Suggested by comment letter of 3/17/05. Derived from Rule 1301(ZZZ)]*

[SIP: Approved 12/31/98, 63 FR 72197, 40 CFR 52.220.(c)(254)(i)(E)(2); Approved 11/27/90, 55 FR49281, _____; Approved _____, 40 CFR 52.220(c)(44)(v)(A); Approved _____, 40 CFR 52.220(c)(41)(xiv)(A) excluding term "agricultural burning"; Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(c); Approved 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(37)(i)(A)]

(**Adopted:** 1/9/76; **Amended:** 9/16/97)

RULE 103
Definition of Geographical Areas

(A) District Boundaries

(1) The district boundaries include the desert portion of Los Angeles County (as described in Section (B) below).

(B) Desert Portion of Los Angeles County

(1) That portion of Los Angeles County which lies north and east of a line described as follows:

Beginning at the Los Angeles-San Bernardino County boundary and running west along the township line common to T.3N and T.2N, San Bernardino Base and Meridian; then north along the range line common to R.8W and R.9W; then west along the township line common to T.4N and T.3N; then north along the range line common to R.12W and R.13W to the southeast corner of Section 12,T.5N, R.13W; then west along the south boundaries of Sections 12, 11, 10, 9, 8, 7, T.5N, R.13W to the boundary of the Angeles National Forest which is collinear with the range line common to R.13W and R.14W; then north and west along the Angeles National Forest boundary to the point of intersection with the township line common to T.7N and T.6N (point is at the northwest corner of Section 4 in T.6N, R.14W); then west along the township line common to T.7N and T.6N; then north along the range line common to R.15W and R.16W to the southeast corner of Section 13, T.7N, R.16W; then along the south boundaries of Sections 13, 14, 15, 16, 17, 18, T.7N, R.16W; then north along the range line common to R.16W and R.17W to the north boundary of the Angeles National Forest (collinear with township line common to T.8N and T.7N) then west and north along the Angeles National Forest boundary to the point of intersection with the south boundary of the Rancho La Liebre Land Grant; then west and north along this land grant boundary to the Los Angeles-Kern County boundary.

[SIP: Approved 12/31/98, 63 FR 72197, 40 CFR 52.220(c)(254)(i)(E)(2); Approved 9/8/78 43 FR 40011, 40 CFR 52.220(c)(iv)(c); Approved 6/14/78 43FR 25684, 40 CFR 52.220(c)(31)(vi)(B)]

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4/21/76

~~Then westerly along section lines to the southwest corner of~~ Section 7, T 4 S, R 3 E;

Then northerly along the range line to the Point of Beginning.

(i) WESTERN RIVERSIDE COUNTY AREA. That portion of Riverside County lying westerly of the Coachella Valley Area.

(j) JOSHUA TREE AREA. That portion of Riverside County lying between the Coachella Valley Area and Palo Verde Area.

(k) SAN BERNARDINO AREA. That portion of San Bernardino County lying southerly of the township line common to T 3 N and T 2 N and westerly of the range line common to R 3 E and R 2 E, S.B.B.&M.

(l) DESERT AREA OF SAN BERNARDINO COUNTY. That portion of San Bernardino County not included within the San Bernardino area.

(m) REMOTE DESERT AREA. That portion of San Bernardino and Riverside Counties which lies north and east of a line, beginning at the western boundary of San Bernardino County and running east along the line common to T 10 N and T 11 N of S.B.B.&M. to a line common to R 3 E and R 4 E; then south to a line common to T 3 N and T 2 N; then east to a line common to R 11 E and R 12 E; then south to the southern boundary ~~of Riverside County.~~

RULE 104. REPORTING OF SOURCE TEST DATA AND ANALYSES

Source tests to determine compliance with the provisions of these rules shall be conducted in accordance with the methods adopted by the District or any method determined by the Air Pollution Control Officer to

be equivalent. Results of all tests and analyses shall be calculated to and reported at standard conditions.

~~RULE 105. AUTHORITY TO ARREST~~

The Air Pollution Control Officer and every officer and employee of the Southern California Air Pollution Control District designated by him, is authorized, during reasonable hours, to arrest a person without a warrant, whenever he has a reasonable cause to believe a person has committed a misdemeanor in his presence which is a violation of the Health and Safety Code or any provision of the Vehicle Code relating to the emission or control of air contaminants or any order, regulation, or rule adopted thereto. Authority to arrest is granted in accordance with Penal Code Section 836.5.

RULE 106. INCREMENTS OF PROGRESS

(a) Unless and until the Hearing Board authorizes such operation, no person shall operate any equipment if such person fails to achieve any scheduled increment of progress established pursuant to Sections 42358 or 41703 of the Health and Safety Code of the State of California.

(b) Whenever the Air Pollution Control Board adopts or modifies a rule in Regulation IV of these regulations and such new rule or modified rule contains a compliance schedule with increments of progress, the owner or operator of the affected equipment shall, within five days after each of the dates specified in the compliance schedule, certify to the Air Pollution Control Officer, in the form and manner specified by the Air Pollution Control Officer, ~~that the increments of progress have or have not been achieved.~~

(**Adopted:** 1/9/76; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05)

RULE 106
Increments of Progress

(A) Unless and until the Hearing Board authorizes such operation, no person shall operate any equipment if such person fails to achieve any scheduled increment of progress established pursuant to Sections 42358 or 41703 of the Health and Safety Code of the State of California.

(B) Whenever the Air Quality Management District Board adopts or modifies a rule in Regulation IV of these regulations and such new rule or modified rule contains a compliance schedule with increments of progress, the owner or operator of the affected equipment shall, within five (5) days after each of the dates specified in the compliance schedule, certify to the Air Pollution Control Officer (APCO), in the form and manner specified by the APCO, that the increments of progress have or have not been achieved.

(C) Whenever the Hearing Board approves a compliance schedule with increments of progress, the owner or operator of the affected equipment shall, within five days after each of the dates specified in the compliance schedule, certify to the APCO, in the form and manner specified, that the increments of progress have or have not been achieved.

[SIP: Approved: 11/27/90, 55 FR 49281, _____; Approved: 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C); Approved: 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(31)(vi)(B)]

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(**Adopted**: 05/15/12)

RULE 107
Certification of Submissions and Emission Statements

(A) Submission Certification

(1) All official documents submitted to the Antelope Valley Air Pollution Control District (District) shall contain a certification signed and dated by a responsible official of the company. This certification must attest that the information contained in the submitted documents is accurate to the best knowledge of the individual certifying the submission. The requirements of this Section apply to, but are not limited to, the emissions statements required in Section (B)(1).

(B) Emission Statement

(1) In accordance with the requirements of the 1990 Clean Air Act (Section 182 (a)(3)(B)(i)), the owner or operator of any stationary source that emits or may emit oxides of nitrogen or Volatile Organic Compounds (VOCs) shall provide the Air Pollution Control Officer (APCO) with a written statement showing actual emissions of oxides of nitrogen and VOCs from that source. At a minimum the emission statement shall be submitted as specified in the transaction format detailed in the California Air Resources Board's "California Emission Inventory Development and Reporting System." The emission statement shall contain emission data for the time period specified by the APCO. Emission statements shall be submitted annually.

(2) The APCO may waive the requirements of Section (B)(1) for any class or category of stationary sources which emit less than 25 tons per year of oxides of nitrogen or reactive organic compounds. The waiver is contingent on the District providing the California Air Resources Board with an inventory of sources emitting greater than 10 tons per year of nitrogen oxides or VOCs based on the use of emission factors acceptable to the California Air Resources Board and the United States Environmental Protection Agency.

See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921

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3/1/82 SCAQMD

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1-8-82

~~Proposed Amended~~ Rule 107 - Determination of Volatile Organic Compounds in Coating Material

(a) The purpose of this rule is to determine essentially all the volatile organic compounds present in the coating as used. The volatile organic content of the coating material per volume of coating material, less water, shall be determined by the following method or by any other method approved by the Executive Officer:

~~(a)~~ (1) Measuring the volatile content of the coating by the procedures outlined in ASTM Method D-2369-81 using method 1.1 procedure B or other methods which determine the volatile content under the conditions of use of the coating.

~~(b)~~ (2) Measuring the water content of the coating by the procedures outlined in ASTM Method D-3792.

~~(c)~~ (3) ~~Subtracting the water content from volatile content of the coating.~~ Calculating the volatile organic compound per liter of the coating, less water according to procedures outlined in ASTM3960 - 81 Section 8.2.4.

(b) The volatile organic content of coating material containing exempt solvent per volume of coating, less water, shall be determined by the following method or by any other method approved by the Executive Officer:

(1) Measuring the volatile content of the coating by the procedures outline in ASTM Method D-2369-81 using method 1.1 procedure B or any other methods which determine the volatile content under the conditions of use of the coating.

Proposed Amended Rule 107

(2) Measuring the water content of the coating by procedure outlined in ASTM Method D-3792.

(3) Measuring the exempt solvent content of the coating by gas chromatography or other method which determine the volatile content under conditions of use of the coating.

(4) Subtracting the water and exempt solvent content from volatile content of the coating and subtracting the water and exempt solvent volume from the volume of the coating.

(**Adopted:** 3/2/90; **Amended**: 4/ 6/90; Readopted by Statute: 07/01/97; Readopted by Statue 01/01/02; **Amended:** 5/17/05)

RULE 108
Alternative Emission Control Plans

(A) Purpose

An owner or operator may demonstrate compliance with an emission limitation of a specific District Rule by means of an Alternative Emission Control Plan (AECP).

(B) Applicability

(1) The provisions of this rule shall apply to an owner or operator of an existing stationary source emitting, or capable of emitting, a volatile organic compound (VOC), electing to comply by means of an AECP and subject to one of the following District Rules:

1104 - Wood Flat Stock Coating Operations,
[Rule rescinded 1/20/98]
1107 - Coating of Metal Parts and Products,
1115 - Motor Vehicle Assembly Line Coating Operations,
1124 - Aerospace Assembly and Component Coating Operations,
[Rule rescinded 2/17/04]
1128 - Paper, Fabric, and Film Coating Operations,
1130 - Graphic Arts,
1136 - Wood Products Coatings,
1145 - Plastic, Rubber, and Glass Coatings,
1151 - Motor Vehicle and Mobile Equipment Non-assembly Line Coating Operations,
1164 - Semiconductor Manufacturing,
1168 - Control of Volatile Organic Compound Emissions from Adhesive Application.

(2) The provisions of an AECP shall be submitted by the District to the California Air Resources Board (CARB) for submittal to the United States Environmental Protection Agency (USEPA) as a source-specific revision to the State Implementation Plan (SIP). Sources which obtain an approved AECP from the District remain subject to federal enforcement of existing SIP limits pending federal approval of the AECP as a source-specific SIP revision pursuant to 42 U.S.C. §7410(a)(3)(a) (Federal Clean Air Act §110 (a)(3)(A). *[Conform to AVAQMD rule format]*

(3) The provisions of this rule shall apply to all stationary sources of VOC emissions currently complying with a District rule by means of an AECP or Equivalency Plan. A stationary source may continue to achieve compliance through an existing Plan for a

period not to exceed One Hundred Eighty (180) days from date of Plan submission in accordance with the schedule set forth in paragraph (E). *[Conform to AVAQMD rule format]*

(4) Each permit unit to be included in an AECP shall have been in operation pursuant to District permit or pursuant to District Rule 219 prior to the submittal of the AECP application. *[Conform to AVAQMD rule format]*

(C) Definitions

(1) Alternative Emission Control Plan (AECP) - A plan which allows a source to demonstrate an alternative method of rule compliance. *[Conforms to AVAQMD Rule Format]*

(2) Baseline Emissions - The product of three (3) factors expressed as lbs VOC/day (see (D)(7)). The factors are emissions rate, capacity utilization, and hours of operation. *[Conform to AVAQMD rule format]*

(3) Emission Reductions:

(a) Enforceable - The operating conditions which qualify the AECP for approval are included in a Permit to Operate enforced by the District and the AECP is submitted as a source-specific SIP revision. *[Conform to AVAQMD rule format]*

(b) Permanent - The AECP contains permit conditions which ensure the emission reductions from the baseline are achieved for each and every operating day and the AECP is submitted as a source-specific SIP revision. *[Conform to AVAQMD rule format]*

(c) Quantifiable - Emissions must be able to be measured before and after the reduction using the same test method and averaging time. *[Conform to AVAQMD rule format]*

(c) Surplus - The emission reductions are not required by current SIP regulations, are not a measure in Tier I of the Air Quality Management Plan, or relied upon for SIP planning purposes, and are not used by the source to meet any other regulatory requirements. Surplus emission reductions shall be determined by using an appropriate baseline as described under (D)(7). *[Conform to AVAQMD rule format]*

(4) Equivalency Plan - An AECP. *[Conform to AVAQMD rule format]*

(5) Modification - Any physical change, change in method of operation of, or addition to, an existing stationary source, requiring an application for permit to construct. Routine

maintenance and/or repair shall not be considered a physical change. A change in the method of operation of equipment, unless previously limited by an enforceable permit condition, shall not include: *[Conform to AVAQMD rule format]*

(a) an increase in the production rate, unless such increase will cause the maximum design capacity of the equipment to be exceeded; or

(b) an increase in the hours of operation; or

(c) a change in ownership of a source.

(6) Permit Unit - Any article, machine, equipment, or other contrivance, or combination thereof, which may cause or control the issuance of air contaminants, and which: *[Conform to AVAQMD rule format]*

(a) requires a written permit pursuant to Rules 201 and/or 203; or

(b) is in operation pursuant to the provisions of Rule 219.

(7) Plan - An Alternative Emission Control Plan. *[Conform to AVAQMD rule format]*

(8) Reasonably Available Control Technology (RACT) - The lowest emission limit established through District regulations for a particular source. *[Conform to AVAQMD rule format]*

(9) State Implementation Plan (SIP) - The State (District) prepared plan, approved by USEPA, detailing how National Ambient Air Quality Standards will be achieved and maintained. *[Conform to AVAQMD rule format]*

(10) Stationary Source - Any permit unit or grouping of permit units or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and which are owned or operated by the same person (or by persons under common control). Such above-described groupings, if non-contiguous, but connected only by land carrying a pipeline, shall not be considered one stationary source. *[Conform to AVAQMD rule format]*

(11) Transfer Efficiency (TE) - The ratio of the weight or volume of coating solids deposited on an object to the total weight or volume of coating solids used in a coating application step expressed as a percentage. *[Conform to AVAQMD rule format]*

(12) Volatile Organic Compound (VOC) - Any volatile compound of carbon, excluding, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and those compounds listed in 40 CFR 51.100(s)(1). *[Suggested by comment letter of 3/17/05. Derived from Rule 1301(ZZZ)]*

(D) Requirements

(1) An owner or operator may demonstrate compliance with a specific District rule by means of an AECP, provided that the owner or operator:

(a) submits an application for a Plan which is enforceable on a twenty-four (24) hour daily emissions basis; and *[Conform to AVAQMD rule format]*

(b) submits applications and receives new Permits to Operate for permit units included in the Plan; and

(c) prior to Plan implementation, receives written approval of the Plan from the Air Pollution Control Officer (APCO) with operating conditions included in a Permit to Operate enforced by the District. Permit conditions may specify parameters for conducting source tests of control equipment in order to determine compliance.

(2) Existing permits shall be surrendered and new permits incorporating the provisions of the AECP shall be obtained. Notwithstanding provisions of District Rule 219, if a Plan encompasses operation of permit units not previously subject to permit, such permit units shall lose their exemption and require permits. *[Conform to AVAQMD rule format]*

(3) The owner or operator of a stationary source of VOC emissions shall be subject to the applicable rule's specific requirements pending District approval of a submitted Plan unless the source is operating under the provision of subparagraph (b)(3).

(4) The AECP shall provide, as a minimum, all data, records, and other information necessary to determine eligibility for alternative emission control including but not limited to:

(a) applicable District rule; and

(b) a list of equipment subject to alternative emission control; and

(c) calculations showing baseline emissions for each piece of equipment included in the Plan; and

(d) calculations showing how the required 20 percent (20%) emission reduction will be obtained; and *[Conform to AVAQMD rule format]*

(e) an explanation of how the proposed 20 percent (20%) emission reduction will be enforceable, permanent, quantifiable, and surplus; and *[Conform to AVAQMD rule format]*

(f) amounts of VOC-containing materials to be used and their VOC concentrations for each operation.

(5) The owner or operator operating under an approved Plan shall maintain daily operating records, information on operations, source tests, laboratory analyses, monitoring data, and other information in a manner and form consistent with determining compliance with the Plan on a twenty-four (24) hour basis. Such records and reports shall be retained for a period of not less than two (2) years and shall be submitted to the District upon request. *[Conform to AVAQMD rule format]*

(6) The Plan shall result in at least a twenty percent (20%) reduction in VOC baseline emissions, thus producing a net air quality benefit and establishing an AECP emissions limit. *[Conform to AVAQMD rule format]*

(7) Baseline emissions are the product of:

Emission rate (ER) (lbs VOC/gal of solids)
Capacity utilization (CU) (gals of solids/hour)
Hours of operations (H) (hrs/day)

Baseline emissions = ER x CU x H = (lbs VOC/day)

Baseline emission calculations shall include data for permit units included in the Plan. Calculations shall use the lowest of either (1) the actual emission rate, (2) SIP allowable emission limit, or (3) RACT limits (as defined by the District regulations as of the date of application for credit). Also, calculations shall use the lowest of either actual or SIP allowable values for the capacity utilization and hours of operation factors. The hours of operation may be expressed as an hourly usage over a representative time, as approved by the APCO not to exceed twenty-four (24) hours. Sources lacking specific hours of operation records may substitute daily records (two (2) years) of VOC emissions from coatings and solvents usage expressed as lbs VOC/day. Actual values for the capacity utilization and hours of operation shall be based on the average from data for two (2) years directly preceding the source's application for a Plan, unless another two (2)-year period can be shown to the satisfaction of the APCO and USEPA to more accurately represent the source's normal allowable operations. No credit will be given for down-time. *[Conform to AVAQMD rule format]*

(8) Emission reductions shall consist of VOC emissions only and shall be enforceable, permanent, quantifiable, and surplus.

(9) For Plans encompassing VOC emissions from coating operations, the emission reductions shall be demonstrated on a solids basis, i.e. averaging shall be performed using pounds of VOC emitted per gallon of solids. The VOC content of the coating is as applied including any thinner added before or during application. Water and exempt solvents shall be excluded in this calculation.

(10) Emission reductions shall consist of emissions resulting from activities governed by only one source-specific District rule for which the Plan is submitted.

(11) Equipment subject to the Plan shall be located within the same stationary source.

(12) If the emission reduction required by the AECP is accomplished through equipment shutdown or production curtailment, the permanency of the reduction shall be ensured by permit conditions limiting the total VOC emissions from the entire facility. Thus, all future increases in VOC emissions from the facility shall require complete emission reduction offsets, regardless of the provisions of Regulation XIII.

(13) Plans using add-on controls to achieve emission reductions shall specify test methods for both the emission collection system and the control system. Add-on controls shall not be considered part of an AECP unless incorporated in an emissions averaging approach to compliance.

(E) Compliance Schedule

(1) For sources operating under District approved AECPs at the time of this rule's adoption, the following schedule shall apply:

(a) Sources seeking compliance with Rules 1124 - Aerospace Assembly and Component Coating Operations; 1125 - Metal Container, Closure, and Coil Coating Operations; 1128 - Paper, Fabric, and Film Coating Operations; 1130 - Graphic Arts; 1136 - Wood Products Coatings; 1145 - Plastic, Rubber, and Glass Coatings; 1151 - Motor Vehicle and Mobile Equipment Non-assembly Line Coating Operations; 1164 - Semiconductor Manufacturing; and 1168 - Control of Volatile Organic Compound Emissions from Adhesive Application shall submit Plans consistent with this rule's requirements within one hundred twenty (120) days of rule adoption. The District will move to approve or deny such Plans within one hundred eighty (180) days of submittal; or *[Conform to AVAQMD rule format]*

(b) Sources seeking compliance with Rules 1104 - Wood Flat Stock Coating Operations, 1106 - Marine Coating Operations, Rules 1107 - Coating of Metal Parts and Products, and 1115 - Motor Vehicle Assembly Line Coating Operations shall submit Plans consistent with this rule's requirements within one hundred eighty (180) days of rule adoption. The District will move to approve or deny such Plans within one hundred eighty (180) days of submittal. *[Conform to AVAQMD rule format]*

(2) New Plans and Plans updated subsequent to any initial plans submittals required by the adoption of this rule shall be submitted:

(a) Prior to modification of equipment subject to alternative emission control; or

(b) Within sixty (60) days following the date the specific rule relating to the Plan is amended if the rule amendment is pertinent to the Plan; or *[Conform to AVAQMD rule format]*

(c) Not less than ninety (90) days prior to implementation of a specific rule's future compliance date which is pertinent to the Plan, but which the Plan does not address. *[Conform to AVAQMD rule format]*

(F) Restrictions

(1) A Plan shall not result in a net increase in any baseline emission of an air pollutant regulated, proposed for regulation, listed, or the subject of a notice-of-intent-to-list under 42 U.S.C. §7412 (Federal Clean Air Act §112) - National Emission Standards for Hazardous Air Pollutants (NESHAP). The Plan shall not be used to meet any NESHAP requirements. The baseline emissions of a hazardous pollutant shall be determined by the lower of either actual or NESHAP's allowable emissions. *[Conform to AVAQMD rule format]*

(2) Plans shall not include credits from emission reductions made prior to application for the Plan. This includes emission reductions from equipment shutdown and production curtailment. *[Correct typo.]*

(3) Plans shall not include credits from emission reductions required by subsequent amendments to the rules specified in (B)(1).

(4) Plans shall not include credits from emission reductions calculated through solvent usage for surface preparation, cleanup and/or stripping operations.

(5) TE shall not be included as an alternative means of control.

(6) Emission reductions from Plans shall not be used to meet requirements of New Source Performance Standards (NSPS).

[SIP: Approved 8/30/93, 58 FR 45445, 40 CFR 52.220(c)(182)(i)(A)(3)]

(**Adopted:** 5/5/89; **Amended:** 3/6/92; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05; **Amended**: 04/20/10

RULE 109
Recordkeeping for Volatile Organic Compound Emissions

(A) General

(1) Purpose

(a) The purpose of this rule is to ensure that adequate records of volatile organic compound use are made and maintained.

(2) Applicability

(a) The provisions of this rule shall apply to an owner or operator of a stationary source within the District conducting operations, which include the use of adhesives, coatings, solvents, and/or graphic arts materials, when records are required to determine a District rule's applicability or source's exemption from a rule, rule compliance, or specifically as a Permit to Operate or Permit to Construct condition.

(b) District rules requiring recordkeeping as outlined by District Rule 109 include, but are not limited to, the following:

442 - Usage of Solvents
1102 - Petroleum Solvent Dry Cleaners
1104 - Wood Flat Stock Coating Operations,
1107 - Coating of Metal Parts and Products,
1122 - Solvent Cleaners (Degreasers),
1124 - Aerospace Assembly and Component Coating Operations,
1128 - Paper, Fabric, and Film Coating Operations,
1130 - Graphic Arts,
1130.1 - Screen Printing Operations
1136 - Wood Products Coatings,
1145 - Plastic, Rubber, and Glass Coatings and Adhesives,
1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations,
1162 - Polyester Resin Operations
1164 - Semiconductor Manufacturing,
1168 - Control of Volatile Organic Compound Emissions from Adhesive Applications.
1171 - Solvent Cleaning Operations

(B) Definitions

(1) Exempt Compounds - Any compound listed in 40 CFR 51.100(s)(1).

(2) Facility - Any permit unit, group of permit units, non-permitted equipment or any combination thereof which emits or may emit an Air Pollutant; and belongs to a single major industrial group in the Standard Industrial Classification manual; and is located on a single parcel of land or on contiguous property within the District; and which is owned or operated by the same person or by persons under common control.

(3) Graphic Arts Materials - Any inks, coatings, adhesives, fountain solutions, thinners retarders, or cleaning solutions used in printing or related coating or laminating processes.

(4) Low Solids Adhesive, Adhesive Primer, or Stain - An adhesive, adhesive primer or stain which has less than one pound of solids per gallon of material.

(5) Permit Unit - Any article, machine, equipment, or other contrivance, or combination thereof, which may cause the issuance or control the issuance of air contaminants, and which:

(a) Requires a written permit pursuant to the provisions of District Rules 201 and/or 203; or

(b) Is in operation pursuant to the provisions of District Rule 219.

(6) South Coast Air Quality Management District (SCAQMD) - The air quality district created pursuant to Division 26, Part 3, Chapter 5.5 of the California Health & Safety Code (commencing with §40400).

(7) Stationary Source - Any permit unit or grouping of permit units or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control). Such above-described groupings, if non-contiguous, but connected only by land carrying a pipeline, shall not be considered one stationary source.

(8) Volatile Organic Compound (VOC) - Any volatile compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds as defined in subsection (B)(1) above.

(C) Daily Recordkeeping Requirements

(1) An owner or operator of a stationary source using adhesives, coatings, solvents, and/or graphic arts materials and subject to this rule shall maintain daily records of operations for the most recent two (2) year period. The records shall be retained on the premises of the affected operation for a period of not less than two

(2) years. Said records shall be made available to the District upon request. The records shall include, but not be limited to, the following:

(a) Each applicable District rule number pertinent to the operation for which records are being maintained;

(b) A list of the permit units involved in the operation(s) using adhesives, coatings, solvents, and/or graphic arts materials;

(c) The method of application and substrate type;

(d) The amount and type of adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material used in each permit unit or dispensing station (when permitted equipment is not involved), including exempt compounds (containers of one pint or less may be recorded in an alternative manner including but not limited to assuming full consumption on day of first use and/or calculating an average daily consumption by determining the number of operating days a single pint container of material was in active use at a facility;

(e) The VOC content in each adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material;

(f) The amount of diluent, surface preparation, clean-up, or wash-up solvent (including exempt compounds) used and the VOC content of each (containers of one pint or less may be recorded in an alternative manner);

(g) Where applicable, the vapor pressure of solvents used as surface cleaners; and

(h) Where applicable, oven temperature (for coating operations).

(D) Test Methods

(1) VOC content shall either be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coatings, and inks; or testing shall be done using USEPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A, 7/1/85 edition). Analysis done according to USEPA Method 24 shall utilize Procedure B of ASTM Method D-2369, referenced within USEPA Method 24. The exempt solvent content shall be determined using SCAQMD Test Methods 302 and 303 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual). Alternatively, the VOC content may be determined using SCAQMD Test Methods 302, 303, and 304. The test method shall be documented. The VOC content may be supplied by a Material Safety Data Sheet (MSDS) or data sheet provided the test methods described above are used and specified on the MSDS or data sheet.

(2) VOC content and density of rotogravure publication inks shall be determined by USEPA Reference Method 24A (Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A, 7/1/85 edition). The exempt solvent content shall be determined using SCAQMD Test Methods 302 and 303 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual). Alternatively, the VOC content may be determined using SCAQMD Test Methods 302, 303, and 304.

(3) VOC content for low solid adhesive, adhesive primer, or stain shall be calculated by the method used to calculate the "Grams of VOC per Liter of Material" as specified in District Rules 1136 and 1168.

(4) Any applicable alternative test method may be used so long as such method has been approved by USEPA, CARB and the APCO.

(5) When more than one test method or set of methods are specified for any testing, noncompliance with 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.

The following classes of compounds: 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 sulfur bonds only to carbon and fluorine, will be analyzed as exempt compounds, only at such time as manufacturers specify which individual compounds are used in the coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA and the District, that can be used to quantify the amounts of each exempt compound.

(E) Exemptions

(1) The provisions of this rule shall not apply to the application of materials that contain less than 20 g/l of VOC.

[SIP: Submitted as amended mm/dd/yy on mm/dd/yy; Approved: 4/13/95, 60 FR 18751, 40 CFR 52.220(c)(189)(i)(A)(6); Limited Approval/Disapproval 8/30/95, 58 FR 45444, 40 CFR 52.220(c)(182)(i)(A)(2)]

[(Adopted: 1/9/76; Amended: 1/5/90; Amended: 8/19/97)]

Rule 201
Permit to Construct

A person shall not build, erect, install, alter or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants without first obtaining written authorization for such construction from the Air Pollution Control Officer. A permit to construct shall remain in effect until the permit to operate the equipment for which the application was filed is granted or denied, or the application is canceled.

[SIP: Submitted as amended on 8/19/97; Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(39)(iii)(B); Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(31)(vi)(C)]

4/21/76

ADOPTED

REGULATION II

Permits

~~RULE 201. Permit to Construct. A person shall not build, erect, install, alter or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants without first obtaining written authorization for such construction from the Air Pollution Control Officer. A permit to construct shall remain in effect until the permit to operate the equipment for which the application was filed is granted or denied, or the application is cancelled.~~

RULE 202. Temporary Permit to Operate.

(a) New equipment - A person shall notify the Air Pollution Control Officer before operating or using equipment granted a permit to construct. Upon such notification, the permit to construct shall serve as a temporary permit for operation of the equipment until the permit to operate is granted or denied. The equipment shall not be operated contrary to the conditions specified in the permit to construct.

(b) Altered equipment - The permit to construct granted to modify equipment having a valid permit to operate shall serve as a temporary permit for operation of the equipment until a new permit to operate is granted or denied. The altered equipment shall not be operated contrary to the conditions specified in the permit to construct. A person must notify the Air Pollution Control Officer when construction of the modification has been completed.

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~~(c) When an application is filed for equipment previously granted~~ a permit to operate or for equipment previously exempt from permit requirements, the application shall serve as a temporary permit for operation of the equipment. The equipment shall not be operated contrary to the conditions specified in the previous permit to operate.

RULE 203. Permit to Operate. A person shall not operate or use any equipment, the use of which may cause the issuance of air contaminants or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit from the Air Pollution Control Officer or except as provided in Rule 202. The equipment shall not be operated contrary to the conditions specified in the permit to operate.

RULE 204. Permit Conditions. To assure compliance with all applicable regulations, the Air Pollution Control Officer may impose written conditions on any permit. Commencing work or operation under such a permit shall be deemed acceptance of all the conditions so specified.

RULE 205. Cancellation of Applications. An application for a permit shall be cancelled and a permit to construct shall expire two years from the date of filing of the application unless an extension of time has been approved by the Air Pollution Control Officer.

~~RULE 206. (Reserved)~~

8/2/76

REGULATION II

Permits

RULE 202. Temporary Permit to Operate.

(c) ~~When an application is filed for equipment previously granted a permit to operate or for equipment previously exempt from permit requirements~~ Existing Equipment - When an application for permit to operate is filed for existing equipment, the application shall serve as a temporary permit for operation of the equipment. If the equipment was previously operated under permit and has not been altered, it shall not be operated under a temporary permit contrary to the conditions specified in the previous permit to operate.

~~RULE 219. Equipment Not Requiring a Permit.~~

(e)(6) Brazing, soldering, welding or oxygen - gaseous fuel cutting ~~or welding~~ equipment (not including plasma arc) and control equipment venting exclusively such equipment.

(e)(9) Foundry sand mold forming equipment to which no heat or chemical dessicant is applied, and control equipment venting exclusively such equipment.

(g)(2) Equipment used exclusively for carving, cutting, drilling, planing, routing, sanding, sawing, shredding or turning of wood or the extruding, pressing or storage of wood chips, sawdust, wood shavings and control equipment exclusively venting such equipment.

219 (k)(4) Equipment used exclusively to mix, grind, or thin inks and liquid surface coatings with no material in powder form added and mills, mixers, post mixing stations and dispersers, ~~Equipment~~ with a capacity of ~~950~~ 1150 liters (~~251~~ 304 gallons) or less used exclusively to ~~blend,~~ mix, grind or thin, inks, ~~paints, varnishes, shellacs, resins or other~~ and liquid surface coatings ~~or to blend solvents~~, where none of the ingredients exceed 125°F and no supplemental heat is added.

[(Adopted: 1/ 9/76; Amended: 1/5/90; Amended: 8/19/97)]

Rule 203
Permit to Operate

A person shall not operate or use any equipment, the use of which may cause the issuance of air contaminants, or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit to operate from the Air Pollution Control Officer or except as provided in Rule 202. The equipment shall not be operated contrary to the conditions specified in the permit to operate.

[SIP: Submitted as amended on 8/19/97; Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(39)(iii)(B); Approved 11/9/78, 40 CFR 52.220(c)(31)(vi)(C)]

[(Adopted: 1/9/76; Amended: 1/4/85; Amended: 3/6/92; Amended: 10/8/93; Amended: 8/19/97)]

Rule 204
Permit Conditions

To assure compliance with all applicable regulations, the Air Pollution Control Officer may impose written conditions on any permit. The Air Pollution Control Officer may, after 30-day notice to the permittee, add or amend written conditions on any permit upon annual renewal to assure compliance with and enforceability of any applicable rule or regulation. Additional provisions, as required by Title V of the federal Clean Air Act, for the reopening of facility permits are specified in Regulation XXX. Commencing work or operation under such revised permits shall be deemed acceptance of all the conditions so specified.

[SIP: Submitted as amended on 8/19/97; Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(39)(iii)(B); Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(31)(vi)(C)]

[(Adopted: 1/9/76; Amended: 1/5/90; Amended: 8/19/97)]

Rule 205
Expiration of Permits to Construct

A permit to construct shall expire one year from the date of issuance unless an extension of time has been approved in writing by the Air Pollution Control Officer.

[SIP: Submitted as amended on 8/19/97; Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(39)(iii)(B); Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(31)(vi)(C)]

4/21/76

RULE 207. Altering or Falsifying of Permit. A person shall not willfully deface, alter, forge or falsify any permit issued under these rules.

~~RULE 208. (Reserved)~~

RULE 209. Transfer and Voiding of Permits. A permit shall not be transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another. When equipment which has been granted a permit is altered, changes location, changes ownership or no longer will be operated by the permittee, the permit shall become void. For the purposes of this rule, statutory mergers or name changes shall not constitute a transfer or change of ownership.

RULE 210. Applications. Every application for a permit required under Rules 201, 203 and 208 shall be filed in a manner and form prescribed by the Air Pollution Control Officer, and shall give all the information necessary to enable the Air Pollution Control Officer to make the determination required by Rule 212 and any other standard applicable to the granting of permits.

RULE 211. Action on Permits. The Air Pollution Control Officer shall act, within a reasonable time, on an application for permit and shall notify the ~~applicant in writing of the approval or denial of the permit.~~

(**Adopted:** 10/8/76; **Amended:** 1/5/90; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05)

RULE 208
PERMIT FOR OPEN BURNING

A person, required to obtain a permit for open burning pursuant to Rule 444, shall not set or allow any open outdoor fire without first having applied for and been issued a written permit for such fire by the Air Pollution Control Officer.

[SIP: Submitted as amended 1/5/90 on 12/31/90; Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C)]

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4/21/76

~~RULE 207. Altering or Falsifying of Permit. A person shall not willfully deface, alter, forge or falsify any permit issued under these rules.~~

~~RULE 208. (Reserved)~~

RULE 209. Transfer and Voiding of Permits. A permit shall not be transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another. When equipment which has been granted a permit is altered, changes location, changes ownership or no longer will be operated by the permittee, the permit shall become void. For the purposes of this rule, statutory mergers or name changes shall not constitute a transfer or change of ownership.

~~RULE 210. Applications. Every application for a permit required under~~ Rules 201, 203 and 208 shall be filed in a manner and form prescribed by the Air Pollution Control Officer, and shall give all the information necessary to enable the Air Pollution Control Officer to make the determination required by Rule 212 and any other standard applicable to the granting of permits.

RULE 211. Action on Permits. The Air Pollution Control Officer shall act, within a reasonable time, on an application for permit and shall notify the ~~applicant in writing of the approval or denial of the permit.~~

(**Adopted:** 1/9/76; **Amended:** 1/5/90; **Amended:** 10/8/93; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05

RULE 210
Applications

(A) Every application for a permit required under District Rules 201, 203, and 208 shall be filed in a manner and form prescribed by the Air Pollution Control Officer (APCO), and shall give all the information necessary to enable the APCO to make the determination required by District Rule 212 and any other standard applicable to the granting of permits.

(B) The APCO shall notify the applicant in writing within thirty (30) calendar days of the receipt of an application for a permit, pursuant to District Rule 201, as to whether or not the application contains sufficient information to be deemed complete. Upon receipt of any re-submittal or additional information a new thirty (30) day period shall begin during which the APCO shall determine and notify the applicant regarding completeness of the application. If the APCO determines that the application is not complete, the applicant may appeal that determination to the District Hearing Board.

(C) An application for a permit to construct shall be denied one hundred twenty (120) calendar days after the date of filing if the applicant has not submitted sufficient information to enable the APCO to deem it complete, unless the APCO has, in writing, extended the time. The permit application shall not be denied during the pendency of an appeal to the Hearing Board pursuant to subsection (b).

(D) The APCO shall act to grant or deny a permit to construct within the following time limits:

(1) Within one hundred eighty (180) days after the application has been deemed complete; or

(2) If the district is a responsible agency under the California Environmental Quality Act, within one hundred eighty (180) days after a negative declaration or environmental impact report has been certified by the lead agency (whichever time, (d)(1) or (d)(2), is longer); or

(3) If the district is a lead agency under the California Environmental Quality Act, within one year after the application has been deemed complete.

(4) Significant and minor permit revisions for Title V facilities shall follow the timetables for permit action as specified in District Regulation XXX.

Such time limits may be extended for one ninety (90) day period upon the written consent of the APCO and the applicant, except that projects subject to Health and Safety Code §42314.2 may receive additional extensions as authorized by that section.

(E) The APCO shall notify the applicant in writing of the approval or denial of the permit.

[SIP: Submitted as amended 10/8/93 on _____; Submitted as amended 1/5/90 on 12/31/90; Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(39)(iii)(B) and 40 CFR 52.220 (c)(32)(vi)(C)]

(**Adopted:** 1/9/76; **Amended:** 7/6/84; **Amended:** 5/17/85; **Amended:** 5/1/87; **Amended:** 7/10/87; **Amended:** 3/3/89; **Amended:** 6/28/90; **Amended:** 9/6/91; **Amended:** 8/12/94; **Amended:** 6/7/95; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05)

RULE 212
Standards For Approving Permits

(A) The Air Pollution Control Officer (APCO) or designee shall deny a Permit to Construct or a Permit to Operate, except as provided in District Rule 204, unless the applicant shows that the equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment that it may be expected to operate without emitting air contaminants in violation of §41700, 41701, or 44300 (et sec.) of the State Health and Safety Code or of these rules.

(B) If the APCO or designee finds that the equipment has not been constructed in accordance with the permit and provides less effective air pollution control than the equipment specified in the Permit to Construct, he shall deny the Permit to Operate.

(C) Prior to granting a Permit to Construct for a significant project, all addresses within the area described in section (d) shall be notified of the APCO's or designee's intent to grant a Permit to Construct at least thirty (30) days prior to the date action is to be taken on the application. For the purpose of this rule, significant projects will consist of:

(1) all new or modified permit units that may emit air contaminants located within 1000 feet from the outer boundary of a school. This subdivision shall not apply to modification of an existing facility if the APCO or designee determines that the modification will result in a reduction of emissions of air contaminants from the facility and no increase in health risk at any receptor location. This paragraph shall not apply to modifications that have no potential to affect emissions;

(2) all new or modified facilities which have on-site emission increases exceeding any of the daily maximums specified in subdivision (g) of this rule; and

(3) all new or modified permit units with increases in emissions of toxic air contaminants, for which the APCO or designee has made a determination that a person may be exposed to an individual cancer risk greater than, or equal to, one in a million (1×10^{-6}) during a lifetime (70 years) period, or may be exposed to quantities or concentrations of other substances that pose a potential risk of nuisance. Toxic and potentially toxic air contaminants are substances subject to District Rule 1401, or any other material determined by the APCO or designee to be potentially toxic. This paragraph shall not apply if the APCO or designee determines that modifications to the existing facility will not result in an increase in health risk at any receptor location.

(D) Except as provided for in subdivision (G), the notification of the proposed construction of a significant project, which is to be prepared by the District, is to contain sufficient detail to fully describe the project. The applicant shall provide verification to the APCO or designee that public notice has been distributed as required by this subdivision. In the case of notifications performed under paragraphs (C)(2) and (c)(3), the applicant for the Permit to Construct shall be responsible for the distribution of the public notice to each address within a 1/4 mile radius of the project or such other area as determined appropriate by the APCO or designee. In the case of notifications performed under paragraph (C)(1), distribution of the public notice shall be to the parents of children in any school within 1/4 mile of the facility and the applicant shall provide distribution of the public notice to each address within a radius of 750 feet from the outer property line of the proposed new or modified facility.

(E) Any person may file a written request for notice of any decision or action pertaining to the issuance of a Permit to Construct. The APCO or designee shall provide mailed notice of such decision or action to any person who has filed a written request for notification. Requests for notice shall be filed pursuant to procedures established by the APCO or designee. The notice shall be mailed at the time that the APCO or designee notifies the permit applicant of the decision or action. The ten (10) day period to appeal, specified in District Rule 216(b), shall commence on the third day following mailing of the notice pursuant to this subdivision. The requirements for public notice pursuant to this subdivision are fulfilled if the APCO makes a good faith effort to follow procedures established pursuant to this subdivision for giving notice and, in such circumstances, failure of any person to receive the notice shall not affect the validity of any permit subsequently issued by the APCO or designee.

(F) An application for a Permit to Operate, for a permit unit installed or constructed without a required Permit to Construct, shall be subject to the requirements of this rule.

(G) For new or modified sources subject to Regulation XIII, which undergo construction or modifications resulting in an emissions increase exceeding any of the daily maximums specified as follows:

Air Contaminant	Daily Maximum in lbs per Day
Volatile Organic Compounds	30
Nitrogen Oxides	40
PM_{10}	30
Sulfur Dioxide	60
Carbon Monoxide	220
Lead	3

the process for public notification and comment shall include all of the applicable provisions of 40 CFR §51.161(b), and 40 CFR §124.10. The federal public notice and comment procedures for these facilities require that the public notice be distributed to the broadest possible scope of interested parties, and include at a minimum:

(1) Availability of information submitted by the owner or operator and of District analyses of the effect on air quality for public inspection in at least one location in the area affected;

(2) Notice by prominent advertisement in the area affected of the location of the source information and the District's analyses of the effect on air quality;

(3) Mailing a copy of the notice required in paragraph (2) to the following persons: The applicant, the Administrator of USEPA through RegionIX, the California Air Resources Board, affected local air pollution control districts, the chief executives of the city and county or the onshore area that is geographically closest to where the major stationary source or major modification would be located, any comprehensive regional land use planning agency, and State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the regulated activity;

(4) A thirty (30) day period for submittal of public comments.

[SIP: Approved 2/4/96, 61 FR 64291, 40 CFR 52.220(c)(240)(i)(A)(1); Approved _____, _____, 40 CFR 52.220(c)(173)(i)(A)(1); Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(31)(vi)(c) and 52.220(c)(39)(iii)(B)]

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11/19/76

SOUTHERN CALIFORNIA AIR POLLUTION CONTROL DISTRICT

NEW SOURCE REVIEW RULES

RULE 213. Standards for Permits to Construct: Air Quality Impact

(a) General:

The Air Pollution Control Officer shall deny a permit to construct for any unit or units of a stationary source that fail to meet the applicable requirements of subsection (b) or (c) of this Rule.

(b) Best Available Control Technology:

1. New Stationary Sources:

The Air Pollution Control Officer shall deny a permit to construct for any unit or units constituting a new stationary source if such source will emit more than 15 pounds per hour or 150 pounds per day of nitrogen oxides, organic gases, or any contaminant for which there is a state or national ambient air quality standard (except carbon monoxide, for which the limits are 150 pounds per hour and 1500 pounds per day) unless the applicant shows that the new source is constructed using best available control technology.

2. Modifications to Existing Stationary Sources:

The Air Pollution Control Officer shall deny a permit to construct for any modification of any existing stationary source if such source after modification will emit more than 15 pounds per hour or more than 150 pounds per day of nitrogen oxides,

organic gases, or any air contaminant for which there is a state or national ambient air quality standard (except carbon monoxide, for which the limits are 150 pounds per hour and 1500 pounds per day), unless the applicant demonstrates that the modification of the existing stationary source will be constructed using best available control technology, and:

A. That the modification would not result in a net increase in emissions of any pollutant affected by this Rule; or

B. That best available control technology is being, or is to be, applied to all existing units of the stationary source; or

C. That emissions from all of the existing units of the stationary source are controlled by use of technology that is at least as effective as that generally in use on similar stationary sources, and that the cost of installing best available control technology on existing units is economically prohibitive and substantially exceeds the cost per unit mass of controlling emissions of each pollutant through all other control measures; or

D. That the stationary source is a small business, as defined in subsection (1) of Section 1896 of Title 2 of the Califonia Administrative Code; that emissions from all existing units of the stationary source are controlled through application of the best technology that is economically

reasonable to apply to that stationary source; and that the cost of employing best available control technology is economically prohibitive.

(c) Air Quality Impact Analysis:

1. New Stationary Sources:

The Air Pollution Control Officer shall deny a permit to construct for any unit or units constituting a new stationary source if such source will emit more than 25 pounds per hour or 250 pounds per day of nitrogen oxides, organic gases, or any air contaminant for which there is a state or national ambient air quality standard (except carbon monoxide, for which the limits are 250 pounds per hour and 2500 pounds per day), or which is a precursor of any such air contaminant, unless he determines that the emissions from the new source will not cause a violation of, or will not interfere with the attainment or maintenance of, the state or national ambient air quality standard for that same contaminant (or, in the case of a precursor, for the contaminant to which the precursor contributes).

2. Modifications to Existing Stationary Sources:

The Air Pollution Control Officer shall deny a permit to construct for any modification of any existing stationary source if the modification will result in a net increase in emissions from the existing source of more than 25 pounds per hour or 250 pounds per day of nitrogen oxides, organic gases, or any air contaminant for which there is a state or national ambient air quality standard (except carbon monoxide, for which the limits are 250 pounds per hour and 2500 pounds per day), or which is a precursor of any such air contaminant, unless he

determines that the emissions from the modified source will not cause a violation of, or will not interfere with the attainment or maintenance of, the state or national ambient air quality standard for that same contaminant, (or in the case of a precursor, for that contaminant to which the precursor contributes).

(d) Determination of Emission Increases:

In determining under subsection (b) 2. A. and subsection (c) 2. whether there has been a net increase in emissions and, if so, the amount of any such increase, the Air Pollution Control Officer shall consider all increases and decreases of emissions caused by modifications to that stationary source pursuant to permits to construct issued during the preceding five years, or since the adoption of this Rule, whichever period is shorter. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations shall not be considered to be decreases in emissions for the purposes of this subsection.

(e) Consideration of Future Emission Reductions:

In making the analysis required in subsection (h) 2., the Air Pollution Control Officer shall take into consideration the air quality impact of any reduction in the emissions of the same air contaminant which results from the elimination or modification of other existing stationary sources under the same ownership and operating within the same air basin. If reductions are to be based on planned elimination or modification of any stationary sources, the Air Pollution Control Officer shall condition the permit to

operate to require such elimination or modification within not more than 90 days after the start-up of the new or modified source. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations shall not be considered to be decreases in emissions for the purposes of this subsection.

(f) Exemptions:

1. The Air Pollution Control Officer shall exempt from the provisions of subsection (c) of this Rule, any new stationary source or modification of any existing stationary source which:

   A. Will be in whole or in part a replacement for an existing stationary source at the same location if the resulting emissions of any air contaminant will not be increased. The Air Pollution Control Officer may allow a maximum of 90 days as a start-up period for simultaneous operation of the existing stationary source or replaced portions thereof, and the new stationary source or replacement; or

   B. Will cause demonstrable air quality benefits within the air basin, provided however, that the written concurrence of the California Air Resources Board and United States Environmental Protection Agency shall be obtained prior to the granting of an exemption hereunder; or

C. Will be used exclusively for providing essential public services such as schools, hospitals, or police and fire fighting facilities, but specifically excluding sources of electrical power generation other than for emergency standby use at essential public service facilities; or

D. Is exclusively a modification to convert from use of gaseous fuels to fuel oil because of demonstrable shortages of gaseous fuels, provided that all units constituting the modification will utilize best available control technology. Modifications for the purpose of this paragraph shall include the addition or modification of facilities for storing, transferring and/or transporting such fuel oil at the stationary sources. A condition shall be placed on the operating permit requiring conversion to gaseous or other equivalent low polluting fuels when they are, or become, available; or

E. Is air pollution control equipment which, when in operation, will reduce emissions from an existing source; or

F. Is portable sandblasting equipment used on a temporary basis within the air basin.

2. The Air Pollution Control Officer may exempt from the provisions of subsection (c) of this Rule, any new stationary source, or modification of an existing stationary source, which has been determined to be:

   A. A new stationary source or modification of an existing stationary source utilizing unique and innovative control technology which will result in a significantly lower emission rate from the stationary source than would have occurred with the use of previously known best available control technology, and which will likely serve as a model for technology, to be applied to similar stationary sources within the State. In order for a stationary source to be exempted under this paragraph, the applicant must obtain the written concurrence of the California Air Resources Board and the United States Environmental Protection Agency with the Air Pollution Control Officer's determination; or

   B. A new stationary source or modification of an existing stationary source that represents a significant advance in the development of a technology that appears to offer extraordinary environmental or public health benefits or other benefits of overriding importance to the public health or welfare. In order for a stationary source to be exempted under this paragraph, the applicant must obtain the written concurrence of the California Air Resources Board and the United States Environmental Protection Agency with the Air Pollution Control Officer's determination.

(g) Notice Requirements for Proposed Exemptions:

Before granting an exemption under subsection (f) 1. B., (f) 2. A or (f) 2. B. of this Rule, the Air Pollution Control Officer shall publish a notice by prominent advertisement in at least one newspaper of general circulation in the District and shall notify in writing of his intention: the applicant, the United States Environmental Protection Agency, the California Air Resources Board and adjoining air pollution control districts. Calculations and technical data used by the Air Pollution Control Officer as the bases for granting exemptions pursuant to subsection (f) 1. B, (f) 2. A. or (f) 2. B. shall be made available to the California Air Resources Board and United States Environmental Protection Agency. Before granting an exemption under subsection (f) 1. B., (f) 2. A. or (f) 2. B. of this Rule, the Air Pollution Control Officer shall consider any comments received within 30 days after the date of publication or date of notification of the above agencies, whichever occurs later, and shall have obtained the concurrence of the California Air Resources Board and the United States Environmental Protection Agency.

In addition, the Air Pollution Control Officer shall notify in writing the United States Environmental Protection Agency and the California Air Resources Board of the granting of an exemption under subsection (f) 1. A., (f) 1. C. or (f) 1. D.

(h) Procedures for Evaluation of Applications for Permits to Construct: Before granting a permit to construct for any unit of a new stationary source or modification subject to the requirements of subsection (c) of this Rule, the Air Pollution Control Officer shall:

1. Require the applicant to submit information sufficient to describe the nature and amounts of emissions, location, design, construction, and operation of the source, and to submit any additional information required by the Air Pollution Control Officer to make the analysis required by this Rule.
2. Analyze the effect of the operation of the new or modified stationary source on air quality in the vicinity of the new source or modified stationary source, within the air basin and within adjoining air basins. Such analysis shall consider the air contaminant emissions and air quality in the vicinity of the new source or modified source, within the air basin and within adjoining air basins at the time the new source or modification is proposed to commence normal operation. Such analysis shall be based on the application of existing state and local rules and regulations.
3. Upon completion of the evaluation, but before granting a permit to construct:
   A. Publish a notice by prominent advertisement in at least one newspaper of general circulation in the District, stating the preliminary decision to grant the permit to construct and where the public may inspect the information required by this subsection. A copy of the notice shall also be

sent to the applicant, the United States Environmental Protection Agency, the California Air Resources Board and adjoining air pollution control districts. The notice shall provide a period of 30 days, beginning on the date of publication, or on the date of notification of that above agencies, whichever occurs later, for the public to submit comments on the application.

B. Make available for public inspection at the Air Pollution Control District office, except as otherwise limited by law: the information submitted by the applicant, the Air Pollution Control Officer's analysis of the effect of the source on air quality, and the preliminary decision to grant the permit to construct. Such Information shall also be forwarded to the California Air Resources Board for review.

C. Consider all comments submitted. If within the 30-day notice period the Air Pollution Control Officer receives a written request from either the United States Environmental Protection Agency or California Air Resources Board to defer the Air Pollution Control Officer's decision pending the requesting agency's review of the application, the Air Pollution Control Officer shall honor such request for a period of 60 days from the date of such request.

(i) Additional Applicant Requirements:

Receipt of a permit to construct shall not relieve the stationary source owner or operator of the responsibility to comply with other applicable portions of the District's Rules and Regulations.

(j) Severability:

If any portion of this Rule shall be found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the Rule, which shall continue to be in full force and effect.

11/19/76

RULE 213.1. Standards for Permits to Operate: Air Quality Impact

(a) Requirement for Permit to Construct as Condition for Permit to Operate:
The Air Pollution Control Officer shall deny a permit to operate for any stationary source subject to the requirements of Rule 213 unless the applicant has obtained a permit to construct.

(b) Air Quality Impact Analysis for Sources Emitting Larger Quantities of Air Contaminants Than Assumed in the Analysis Performed Pursuant to Rule 213:
The Air Pollution Control Officer shall not grant a permit to operate to any stationary source that he determines emits quantities of air contaminants larger than were assumed in the analysis performed for the permit to construct for the source, unless the Air Pollution Control Officer performs the air quality impact analysis required by Rule 213 and determines that the actual emissions from the source will not cause a violation of, or will not interfere with the attainment or maintenance of, any state or national ambient air quality standard.

(c) Permit Conditions:
The Air Pollution Control Officer shall condition the issuance of a permit to operate, on such terms as are deemed necessary to ensure that the stationary source will be operated in the manner assumed in making the analysis required by Rule 213 or subsection (b)

of this Rule, whichever is applicable. Where appropriate, such conditions shall prohibit a new stationary source which is a replacement for an existing stationary source from operating, unless the operation of the existing source is terminated. The Air Pollution Control Officer may allow a maximum of 90 days as a start-up period for simultaneous operation of the existing stationary source or replaced portion thereof, and the new stationary source or replacement portions thereof.

(d) Exemptions:

The Air Pollution Control Officer shall exempt from the provisions of this Rule, any stationary source which:

1. Has received a permit to construct prior to the adoption of Rule 213.
2. Is a continuing operation, without modification, of a stationary source that was previously exempt from the permit provisions of these Rules and Regulations and a permit to operate is required solely because of a change in permit exemptions stated in Rule 219.

(e) Severability:

If any portion of this Rule shall be found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the Rule, which shall continue to be in full force and effect.

11/1976

RULE 213.2. Definitions for Rules 213 and 213.1

(a) STATIONARY SOURCE means a unit or an aggretation of units of non-vehicular air-contaminant-emitting equipment which is located on one property or on contiguous properties; which is under the same ownership or entitlement to use and operate; and, in the case of an aggregation of units, those units which are related to one another. Units shall be deemed related to one another if the operation of one is dependent upon, or affects the operation of, the other; if their operation involves a common or similar raw material, product, or function; or if they have the same first three digits in their standard industrial classification codes as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget.

In addition, in cases where all or part of a stationary source is a facility used to load cargo onto or unload cargo from cargo carriers, other than motor vehicles, the Air Pollution Control Officer shall consider such carriers to be parts of the stationary source. Accordingly, all emissions from such carriers (excluding motor vehicles) which will result in an adverse impact on air quality in the State of California shall be considered as emissions from such stationary source. Emissions from such carriers shall include those that result from the operation of the carriers' engines; the purging or other method of venting of vapors; and from the loading, unloading, storage, processing, and transfer of cargo.

(b) MODIFICATION means any physical change in, or any change in the method of operation of, a stationary source.

For the purposes of this definition:

1. Routine maintenance or repair shall not be considered to be physical changes, and
2. An increase in production rate or operating hours shall not be considered to be a change in the method of operation, provided that these increases are not contrary to any existing permit to operate conditions.

(c) BEST AVAILABLE CONTROL TECHNOLOGY means the maximum degree of emission control for any air contaminant emitting equipment, taking into account technology which is known but not necessarily in use, provided that the Air Pollution Control Officer shall not interpret best available control technology to include a requirement which will result in the closing and elimination of or inability to construct a lawful business which could be operated with the application of the best control technology currently in use.

(d) Severability:

If any portion of this Rule shall be found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the Rule, which shall continue to be in full force and effect.

[(Adopted: 1/9/76; Amended: 1/5/90; Amended: 8/19/97)]

Rule 217
Provision for Sampling and Testing Facilities

The Air Pollution Control Officer may require the applicant or permittee to provide and maintain such facilities as are necessary for sampling and testing. In the event of such requirements, the Air Pollution Control Officer shall notify the applicant in writing of the required size, number and location of sampling ports; the size and location of the sampling platform; the access to the sampling platform, and the utilities for operating the sampling and testing equipment. The platform and access shall be constructed in accordance with the General Industry Safety Orders of the State of California.

[SIP: Submitted as amended on 8/19/97; Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(39)(iii)(B); Approved 11/9/78, 43 FR 52237, 40 CFR 52.220(c)(31)(vi)(C)]

(**Adopted:** 1/ 9/76; **Amended:** 4/1/77; **Amended:** 8/5/77; **Amended:** 4/6/79; **Amended:** 8/7/81; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05; **Amended:** 07/17/12)

RULE 218
Continuous Emission Monitoring

(A) General

(1) Purpose

(a) The purpose of this rule is to specify Continuous Emission Monitoring System (CEMS) approvals and standards.

(2) Applicability

(a) The provisions of this rule shall apply to all sources that require CEMS as specified in the regulations or permit conditions, with the following exceptions:

(i) This rule shall not apply to CEMS subject to Regulation IX – *Standards of Performance for New Stationary Sources*, Regulation X – *National Emissions Standards for Hazardous Air Pollutants*, or Rule 3010 – *Acid Rain Provisions of Federal Operating Permits*.

(ii) This rule shall not apply to CEMS subject to permit conditions where the purpose of the CEMS is to monitor the performance of the basic and/or control equipment and not to determine compliance with any applicable limit or standard.

(iii) This rule shall not apply to CEMS where alternative performance specifications are required by another District rule.

(B) Definitions

(1) "Analyzer" – The part of the CEMS that analyzes the appropriate gaseous constituents of the conditioned gaseous sample or measures stack gas volumetric flow and fuel flow rates, as applicable.

(a) Contaminant Analyzer – The part of the CEMS that detects the air contaminant and represents those concentrations in a signal output.

(b) Diluent Analyzer – The part of the CEMS that detects oxygen, carbon dioxide or other Diluent Gas concentrations and represents those concentrations in a signal output.

(c) Fuel Flowmeter – The part of the CEMS that detects the parameters of all essential measurement subsystems (e.g., temperature, pressure, differential

pressure, frequency, gas density, gas composition, heating value) and generates signal outputs which are a function of the fuel flow rate and all essential measurement subsystem parameters.

(d) Stack Flowmeter – The part of the CEMS that detects the parameters from all essential measurement subsystems (e.g., temperature, static and atmospheric pressure, gas density, gas composition, molecular weight, gas moisture content) and generates signal outputs which are a function of the stack gas volumetric flow rate and all essential measurement subsystem parameters.

(2) "Calibration" – A procedure performed to ensure that the CEMS accurately measures and records air contaminant or Diluent Gas concentration, flow rate and other parameters necessary to generate data, as evidenced by Calibration Checks, and achieved by periodic manual or automatic adjustment.

(3) "Calibration Check" – A procedure performed to determine the CEMS response to a given gaseous compound concentration. A certified calibration gas mixture is injected into the CEMS as close to the probe tip as practical.

(4) "Certified CEMS" – A CEMS installed, tested, operated, maintained, and calibrated according to the applicable requirements of Rule 218, and that has met the applicable performance specifications according to Rule 218 Section (D)(1)(b), and, has received written approval and conditions thereto applying, from the APCO.

(5) "Certified Gas Mixture" – A gas mixture manufactured, analyzed and certified according to "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards" – EPA-600/R97/121, September 1997 Revision (EPA Protocol) or any subsequent version published by EPA. This definition incorporates by reference EPA Protocol

(6) "Continuous Emissions Monitoring System" (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and Diluent Gas concentrations and/or mass emission rate of a source effluent (as applicable). The CEMS consists of three major subsystems: Sampling Interface, Analyzer, and Data Acquisition System.

(7) "Continuous Monitoring" – Monitoring in which a minimum of one (1) measurement (e.g., concentration, mass emission, flow rate) is taken and recorded each minute.

(8) "Data Acquisition System" (DAS) – The part of the CEMS that processes data generated by the Analyzer and records the results, thus creating a permanent record of the output signal in terms of concentration, flow rate, and/or any other applicable parameter necessary to generate the required data in units of applicable standard. The DAS consists of all equipment, such as a computer, required to convert the original recorded values to any values required for reporting.

(9) "Diluent Gas" – A gas present in a calibration gas mixture or in the source emissions which is present in quantities significantly larger than the air contaminant.

(10) "Laboratory Approval Program" (LAP) – A program administered by the South Coast Air Quality Management District (SCAQMD) that grants test-method-specific approvals to independent testing laboratories or firms that perform tests to determine source compliance with SCAQMD rules and regulations.

(11) "Modification Requiring Recertification" – Any change to the basic equipment, control equipment, contaminant concentration, interfering substances, or CEMS (or SCEMS) that is deemed by the APCO to have a potential for adversely affecting the ability of the CEMS to provide accurate, precise and timely data representative of the stack emissions for which the CEMS (or SCEMS) is required.

(12) "Quality Assurance/Quality Control (QA/QC) Plan" – A written document in which the specific procedures for the operation, Calibration, and maintenance of a Certified CEMS are described in detail, including additional quality assurance assessments and the corrective action system. The purpose of this plan is to ensure that the CEMS generates, collects, and reports valid data that is precise, accurate, complete, and of a quality that meets the requirements, performance specifications, and standards of Rules 218 and 218.1.

(13) "Routine Maintenance" – Preventive evaluation and repair (if necessary) of CEMS performed at specified intervals to preclude System Failure. Routine Maintenance may be performed as recommended by the manufacturer or a documented standard operating procedure determined through operating experience and approved by the APCO. Repairs to a malfunctioning system are excluded from this definition.

(14) "Sampling Interface" – That part of the CEMS that performs sample acquisition using one or more of the following operations: extraction, physical/chemical separation, transportation or conditioning of a representative sample from a designated source.

(15) "Semi-Continuous Emission Monitoring" – A monitoring technique in which a minimum of one (1) measurement (e.g., concentration, mass emission, flow rate) is taken and recorded every 15 minutes.

(16) "Semi-Continuous Emission Monitoring System" (SCEMS) – The total combined equipment and systems to semi-continuously determine air contaminant and Diluent Gas concentrations and/or the mass emission rate in a source effluent (as applicable). The system consists of three (3) major subsystems: Sampling Interface, Analyzer and DAS. This class of monitoring includes, but is not limited to, gas chromatography, integrated sensitized tape analyzer, other sample integration based technologies, and Time-Shared CEMS.

(17) "South Coast Air Quality Management District" (SCAQMD) – The air quality district created pursuant to Division 26, Part 3, Chapter 5.5 of the California Health & Safety Code (commencing with §40400).

(18) "System Failure" – Inability of the CEMS to meet the requirements of Rule 218.1 – *Continuing Emission Monitoring Performance Specifications*, or, Code of Federal Regulations, Title 40 – "Protection of Environment," Part 60 – "Standards of Performance for New Stationary Sources," Appendix F – Quality Assurance Procedures."

(19) "Time-Sharing" – A monitoring technique where an Analyzer, and possibly the associated sampling conditioning system, is used on more than one source.

(20) "Working Day" – Monday through Friday, excluding holidays.

(21) "Zero Check" – A procedure performed to determine the response of the CEMS to a given Zero Gas standard by means of injecting the Zero Gas into the CEMS as close to the probe tip as practical.

(22) "Zero Gas" – A gas containing less than a specified amount of the air contaminant or Diluent Gas which, when periodically injected into the CEMS, is used to check CEMS response to the absence of the air contaminant or Diluent Gas.

(C) Monitoring Requirements for New, Modified and Existing CEMS

(1) The owner or operator of any equipment subject to this rule shall provide, properly install, operate and maintain in Calibration and good working order a Certified CEMS to measure the concentration and/or emission rates, as applicable, of air contaminants and Diluent Gases, flow rates, and other required parameters. The owner or operator shall also provide the necessary records and other data necessary to calculate air contaminant emission rates or concentrations, as specified in Rule 218 Sections (F) and (G).

(D) Requirements for New and Modified CEMS and SCEMS

(1) Application and Approval Requirements for New and Modified CEMS

(a) The owner or operator of any equipment subject to this rule shall submit to the APCO an "Application for CEMS" or "Application for CEMS Modification", as applicable. Any application submitted on or after July 17, 2012, shall require an initial approval by the APCO prior to installation of a new CEMS or modification of an existing CEMS. The APCO shall notify the applicant in writing within 60 calendar days of receipt of an application for a new CEMS, or within 30 calendar days of receipt of an application for a modification to an existing CEMS, if the application contains sufficient information to be deemed complete. Where an application has been determined to be incomplete, the APCO shall

request specific information needed to complete the application. Upon receipt of any complete resubmittal or the additional information, plans or specifications after the application has been deemed incomplete, a new 30-day period shall begin during which the APCO shall determine the completeness of the application and notify the applicant. Within 90 days of installation, a person operating or using CEMS shall undertake a series of certification tests. If the equipment served by the CEMS is not operating at the time of complete CEMS installation, then the CEMS shall undergo a series of certification tests within 90 days from the next start-up of the equipment served by the CEMS. The purpose of the certification tests is to demonstrate the CEMS performance pursuant to the specifications in accordance with the provisions of Rule 218, Section (D)(1)(b). The owner or operator shall notify the APCO in writing at least 14 days before the scheduled certification test dates. The certification tests shall be performed by a testing laboratory approved under the SCAQMD LAP. Data from such tests shall be submitted to the APCO within 45 days following test completion. If satisfactory performance is demonstrated, final approval of the CEMS shall be granted. Subsequent operation and maintenance of the Certified CEMS shall be in accordance with the provisions of Rule 218, Section (D)(1)(b). After final approval, modifications made to the CEMS shall be reviewed and approved by the APCO according to the specifications stipulated in Rule 218, Section (D)(1)(b), and may require all or a portion of performance tests to be conducted.

(b) Upon submission of an "Application for CEMS" or "Application for CEMS Modification" as prescribed in Rule 218, Section (D)(1)(a), the applicant shall indicate either one of the following conditions:

(i) That the CEMS shall be reviewed and certified according to the provisions of Rule 218.1 - *Continuous Emission Monitoring Performance Specifications*, Section (C), and the subsequent operation and maintenance of the Certified CEMS shall be in accordance with the provisions of Rule 218, Sections (C), (F), (G) and (H) and of the requirements of Rule 218.1, Sections (C) and (E); or

(ii) That the CEMS shall be reviewed and certified according to the applicable provisions of the Code of Federal Regulations, Title 40 – "Protection of Environment", Part 60 – "Standards of Performance for New Stationary Sources" (40 CFR 60), Appendix B – "Performance Specifications" (Appendix B), and the subsequent operation and maintenance of the Certified CEMS shall be in accordance with the provisions of Rule 218, Sections (C), (F), (G) and (H), and the requirements of 40 CFR 60, Appendix F – "Quality Assurance Procedures" (Appendix F). Notwithstanding the requirements of this Section, any alternative test methods for 40 CFR 60, Appendices B and F shall be those that are listed in Rule 218.1, Table 1 - Reference Methods.

(c) A "Notification of Pre-Approved Modification" and report of results of prescribed quality assurance checks may be submitted in lieu of the "Application for CEMS Modification" when the modification has been made in accordance with the written technical guidance document approved by the APCO.

(2) Application and Approval Requirements for New and Modified SCEMS

(a) In lieu of submitting an application for CEMS per Rule 218, Section (D)(1), the owner or operator of any equipment subject to this rule, may elect to submit an application for a SCEMS if the averaging time for the applicable limit(s) for which the CEMS is required is 24 hours or greater; or, if the owner or operator demonstrates, to the satisfaction of the APCO, that no CEMS technology is commercially available for the applicable contaminant and the applicable limit(s).

(b) If the conditions in Rule 218, Section (D)(2)(a), above, do not apply, the owner or operator of any equipment subject to this rule may still elect to submit an application for a SCEMS in lieu of a CEMS, subject to the following:

(i) The owner or operator demonstrates that the concentrations and/or emissions required to be monitored would be equivalent to that monitored by a CEMS for the applicable averaging period, to the satisfaction of the APCO;
(ii) The SCEMS shall be capable to take and record a minimum of one (1) measurement (concentration, mass emission rate and/or flow rate, as applicable) every 15 minutes allowing as equally spaced data points as practical;
(iii) The owner or operator shall include in the QA/QC Plan the method of calculating the 15-minute averages for compliance determination to the applicable limit or standard;
(iv) If an exceedance of the allowable limit or standard is calculated using fewer than 100 percent valid data points, then the District shall use any relevant data for the operation of the equipment (basic and control, as applicable) to verify the calculated exceedance; and
(v) If a Time-Shared SCEMS is proposed, it shall meet the performance specifications of Rule 218.1, Section (F).

(c) The requirements for the application submittal and approval of CEMS as provided in Rule 218, Section (D)(1) shall also apply for SCEMS applications.

(3) Operation of CEMS or SCEMS During Certification Testing

CEMS or SCEMS shall be certified as configured for the normal operation of the CEMS or SCEMS with respect to sample acquisition, sample conditioning, pollutant/diluent detection, data requirements and reporting.

(4) QA/QC Plan for New or Modified CEMS or SCEMS

(a) The owner or operator of CEMS or SCEMS who elects the performance specifications according to Rule 218, Section (D)(1)(b)(i), shall submit to the APCO for approval a CEMS QA/QC Plan within 45 days of CEMS installation and no later than 30 days before the certification tests.

(b) Alternative Quality Assurance Practices

The owner or operator of CEMS or SCEMS who elects the performance specifications according to Rule 218, Section (D)(1)(b)(i), may choose to develop alternative CEMS operational test requirements to be included in the CEMS QA/QC procedures that assure data of equivalent or better quality. These alternative QA/QC procedures shall be submitted with the facility QA/QC Plan and are subject to the approval of the APCO.

(E) Requirements for Existing CEMS and SCEMS

(1) Requirements for Existing CEMS

(a) A CEMS installed and granted final approval before July 17, 2012 shall be maintained and operated according to the provisions of Rule 218, Sections (C), (F), (G) and (H), and the requirements of Rule 218.1, Sections (D) and (E).

(b) A CEMS application for initial and final approval submitted to the APCO before July 17, 2012 shall be reviewed and approved by the APCO according to the specifications and requirements of Rule 218.1, Sections (D) and (E). After final approval, the CEMS shall be operated and maintained according to the provisions of Rule 218, Sections (C), (F), (G) and (H), and the requirements of Rule 218.1, Sections (D) and (E).

(c) Modifications Requiring Recertification to any existing CEMS shall be reviewed and approved according to the conditions under Rule 218 Section (D)(1)(b)(i) or (ii), as applicable. After final approval, the modified CEMS shall be operated and maintained according to the conditions under Rule 218, Section (D)(1)(b)(i) or (ii), as applicable.

(d) The owner or operator of existing CEMS shall develop and implement a written QA/QC Plan no later than July 17, 2013. The written QA/QC Plan shall be kept on record and available for inspection upon request by the APCO.

(2) Requirements for Existing SCEMS

(a) A SCEMS installed and granted final approval before July 17, 2012 shall be maintained and operated according to the provisions of Rule 218,

Sections (C), (F), (G) and (H), and the requirements of Rule 218.1, Sections (D) and (E).

(b) A SCEMS application for initial and final approval submitted to the APCO before July 17, 2012 shall be reviewed and approved by the APCO according to the specifications and requirements of Rule 218.1, Sections (D) and (E). After final approval, the SCEMS shall be operated and maintained according to the provisions of Rule 218, Sections (C), (F), (G) and (H), and the requirements of Rule 218.1, Sections (D) and (E).

(c) Modifications Requiring Recertification to any existing SCEMS shall be reviewed and approved according to the conditions under Rule 218 Section (D)(1)(b)(i) or (ii), as applicable. After final approval, the modified CEMS shall be operated and maintained according to the conditions under Rule 218, Section (D)(1)(b)(i) or (ii), as applicable.

(d) The owner or operator of an existing SCEMS operating on or before July 17, 2012 shall be required to comply with the provisions of Rule 218.1 Section (F) – "Time-Sharing Requirements" and with the provisions of Rule 218.1 Sections (C) and (E), or, 40 CFR 60 Appendices B and F, as applicable, when the equipment served by the Time-Shared SCEMS is modified such that:

(i) One or more of the sources monitored requires a new monitoring range;
(ii) The operating permit is modified to require Continuous Monitoring; or,
(iii) An applicable source specific rule is adopted or revised to require Continuous Monitoring.

Subsequent operation and maintenance of the SCEMS shall be according to the provisions of Rule 218, Section (D)(1)(b)(i) or (ii), as applicable.

(F) Retention of Records for New, Modified and Existing CEMS and SCEMS

(1) The records of the data obtained from the CEMS recording devices shall clearly indicate concentrations or emission rates, or both, as specified by the APCO. Records shall be maintained by the CEMS owner or operator for a minimum period of five (5) years, unless otherwise specifically provided by another District regulation or permit conditions, and shall be made available to the APCO upon request.

(2) All calculations, raw parameter data used for calculations, records of the occurrence and duration of any start up, shutdown or malfunction, performance test, evaluation, Calibration, adjustment and maintenance of the CEMS as well as calibration gas traceability shall be retained by the CEMS operator for a minimum period of five (5) years unless otherwise specifically provided by another District

regulation or permit conditions, and shall be made available to the APCO upon request.

(G) Reporting Requirements for New, Modified and Existing CEMS and SCEMS

Unless otherwise specifically provided by another District regulation or permit conditions, the following reporting requirements shall apply to new, modified and existing CEMS and SCEMS:

(1) A CEMS owner or operator shall provide a summary of the concentration and/or emission rate data, as applicable, obtained from the CEMS, as well as any additional information specified by the APCO, to evaluate the accuracy and precision of the measurements. The summary shall be submitted once every six (6) months to the APCO, except when more frequent reporting is specifically required by another District rule, or the APCO, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The summary report shall be submitted within 30 days following the end of the six (6) month period being reported, in the form and manner prescribed by the APCO. The summary shall be maintained on-site in a retrievable and readable form and shall be made available to the APCO upon request. The submitted summaries shall be available for public inspection at the District.

(2) The CEMS owner or operator shall report any concentration level and/or emission rate, as applicable, in excess of the regulated limit within 24 hours or the next Working Day after such occurrence in the form and manner prescribed by the APCO. The report shall include the following information:

(a) Time intervals, date, and magnitude of the excess concentration level, nature and cause of the excess concentration (if known), corrective action(s) taken, preventive measure(s) adopted, specific location of CEMS, the equipment or CEMS involved and the facility contact person.

(b) The averaging period used for data reporting shall correspond to the averaging period specified in the rule or permit condition governing the concentration and/or emission rate, if applicable.

(3) Reports of CEMS Failure or Shutdown

(a) The CEMS owner or operator shall notify the APCO within 24 hours or the next Working Day, in the event of a system failure or shutdown, which exceeds 24 hours. Zero and Calibration Checks and Routine Maintenance do not require reporting.

(b) In the case of a CEMS failure or shutdown, compliance with the provisions of Rule 218, Section (C) is waived for a period not to exceed 96 consecutive hours. Such waiver is extended beyond 96 consecutive hours

only if a petition for an interim variance is filed in accordance with Regulation V – *Procedures Before the Hearing Board* and shall terminate at the time the Hearing Board acts upon such variance petition. CEMS owners or operators of qualified facilities may obtain a Hearing Board approval of an alternative operating condition following the established procedure in Rule 518.2 – *Federal Alternative Operating Conditions*.

(c) Regularly scheduled CEMS maintenance shall be deferred until the report required under Rule 218, Section (G)(2) is made, if the system is measuring a concentration equal to or exceeding the emission standard, and if such deferral is not reasonably expected to result in damage to the system.

(d) Continuous emission monitoring requirements shall not apply during regular Calibration Checks of the system, or Routine Maintenance and repair lasting 60 minutes or less.

(H) Posting of Written Approval for New, Modified and Existing CMS and SCEMS

The CEMS owner or operator of an approved CEMS shall affix a written notice of approval or a legible facsimile thereof upon the equipment or within 26 feet of the equipment as prescribed in Rule 206 – *Posting Of Permit To Operate*, in a manner such that it is clearly visible, legible, and safely accessible. In the event that the equipment is so constructed or operated that the notice of approval or its legible facsimile cannot be so placed, such notice or legible facsimile shall be mounted on a location approved by the APCO.

See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921

RULE 218.1
Continuous Emission Monitoring Performance Specifications

(A) General

(1) Purpose

(a) The purpose of this rule is to specify standards, specifications and requirements for new, modified and existing Continuous Emission Monitoring Systems (CEMS).

(2) Applicability

(a) The provisions of this rule shall apply to all sources that require CEMS pursuant to Rule 218 – *Continuous Emission Monitoring*.

(B) Definitions

(1) "Analyzer" - The part of the CEMS that analyzes the appropriate gaseous constituents of the conditioned gaseous sample or measures stack gas volumetric flow and fuel flow rates, as applicable.

(a) Contaminant Analyzer - The part of the CEMS that detects the air contaminant concentrations and represents those concentrations in a signal output.

(b) Diluent Analyzer - The part of the CEMS that detects oxygen (O_2), carbon dioxide (CO_2) or other Diluent Gas concentrations and represents those concentrations in a signal output.

(c) Fuel Flowmeter - The part of the CEMS that detects the parameters of all essential measurement sub-systems (e.g., temperature, pressure, differential pressure, frequency, gas density, gas composition, heating value) and generates signal outputs which are a function of the fuel flow rate and all essential measurement subsystem parameters.

(d) Stack Flowmeter - The part of the CEMS that detects the parameters from all essential measurement sub-systems (e.g., temperature, static and atmospheric pressure, gas density, gas composition, molecular weight, gas moisture content) and generates signal outputs which are a function of the stack gas

volumetric flow rate and all essential measurement sub-system parameters.

(2) "Calibration" - A procedure performed to ensure that the CEMS accurately measures and records the concentration of the specific air contaminant or Diluent Gas, flow rate and other parameters necessary to generate the required data, as evidenced by Calibration Checks and achieved by periodic manual or automatic adjustment.

(3) "Calibration Check" - A procedure performed to determine CEMS response to a given gaseous compound concentration by means of injecting a certified calibration gas mixture into the CEMS as close to the probe tip as practical.

(4) "Calibration Drift" (CD) - Change in the CEMS output or response over a specific period of normal continuous operation when the air contaminant or Diluent Gas concentration at the time of the measurements is the same known upscale value. CD is expressed as the sum of the absolute value of the mean difference and the absolute value of the Confidence Coefficient of a series of tests, to the Full Span Range, expressed as a percentage as follows:

$$CD = \frac{\left|\bar{d}\right| + \left|CC\right|}{FSR} \times 100$$

Where:

FSR	=	Full Span Range
$\left\|CC\right\|$	=	Absolute value of the 95% Confidence Coefficient
$\left\|\bar{d}\right\|$	=	Absolute value of the mean difference. The mean difference, $\bar{d}$, is calculated as:

$$\bar{d} = \frac{1}{n}\sum_{i=1}^{n} d_i$$

Where

$\sum_{i=1}^{n} d_i$	=	Algebraic sum of the individual differences d_i
n	=	Number of data points
d_i	=	The difference between the paired response values of the monitoring system

(5) "Calibration Error" (CE)

(a) Calibration Error (as applicable to Section (D) - Standards for Existing CEMS) - The ratio of the difference between the air contaminant or Diluent Gas concentration indicated by the CEMS and the known concentration of the calibration gas, to the known concentration of the calibration gas. CE is calculated as the ratio of the sum of the absolute values of the mean difference and the 95 percent Confidence Coefficient of a series of tests, to the gas concentration, expressed as a percentage, as follows:

$$CE = \frac{\left|\bar{d}\right| + \left|CC\right|}{C} \times 100$$

Where:

C	=	Calibration gas concentration
$\left\|CC\right\|$	=	Absolute value of the 95% Confidence Coefficient
$\left\|\bar{d}\right\|$	=	Absolute value of the mean difference. The mean difference is calculated as:

$$\bar{d} = \frac{1}{n}\sum_{i=1}^{n} d_i$$

Where:

$\sum_{i=1}^{n} d_i$ = Algebraic sum of the individual differences d_i

n = Number of data points

d_i = The difference between the paired monitoring system response value and the known gas concentration or the equivalent rating of the Reference Method value, both in units of the applicable standard

(b) Calibration Error (as applicable to Section (C) - Standards for New or Modified CEMS) - The ratio of the absolute value of the difference between the air contaminant or Diluent Gas concentration indicated by the CEMS and the known concentration of the calibration gas, to the Full Span Range, expressed as a percentage, as follows:

$$CE = \frac{|C - A|}{FSR} \times 100$$

Where:

C = Calibration gas concentration

A = Actual response or the concentration indicated by the monitoring system

FSR = Full Span Range of the instrument

(6) "CEMS Availability Percentage" - A percentage calculated as the ratio of the total unit operating hours for which the CEMS provided quality-assured data, to the source total unit operating hours during a specified period, excluding periods of Calibration, maintenance, repair, or audit, up to a maximum of 40 hours per month.

(7) "Certified CEMS" - A CEMS installed, tested, operated, maintained, and calibrated according to the applicable requirements of Rules 218 and 218.1; that has met the applicable performance specifications of Rule 218.1 and, has received written approval and conditions thereto applying, from the APCO.

(8) "Certified Gas Mixture" - A gas mixture manufactured, analyzed and certified in accordance with the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards" - EPA-600/R97/121, September 1997 Revision (EPA Traceability Protocol) or any subsequent version published by EPA. This definition incorporates by reference EPA Protocol.

(9) "Confidence Coefficient" (CC) - The 2.5 percent error Confidence Coefficient for the 95 Percent Confidence Interval of a series of tests. The CC is calculated as follows:

$$CC = t_{0.975} \frac{S_d}{\sqrt{n}}$$

Where:

S_d = Standard deviation

n = Number of data in a series of tests

$t_{0.975}$ = t-value (see Table of t-Values below)

Table of t-Values*

n	$t_{0.975}$	n	$t_{0.975}$	n	$t_{0.975}$
2	12.706	7	2.447	12	2.201
3	4.303	8	2.365	13	2.179
4	3.182	9	2.306	14	2.160
5	2.776	10	2.262	15	2.145
6	2.571	11	2.228	16	2.131

*The t-values in this table are already corrected for *n-1* degrees of freedom. Use *n* equal to the number of data points.

(10) "Continuous Emission Monitoring System" (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and Diluent Gas concentrations and/or mass emission rate of a source effluent (as applicable). The CEMS consists of three (3) major subsystems: Sampling Interface, Analyzer and Data Acquisition System.

(11) "Continuous Monitoring" - A monitoring in which a minimum of one (1) measurement (e.g., concentration, mass emission, flow rate) is taken and recorded each minute.

(12) "Data Acquisition System" (DAS) - The part of the CEMS that processes data generated by the Analyzer and records the results, thus creating a permanent record of the output signal in terms of concentration, flow rate, and any other applicable parameter necessary to generate the required data in units of applicable standard. The DAS consists of all equipment such as a computer required to convert the original recorded values to any values required for reporting.

(13) "Diluent Gas" - A gas present in a calibration gas mixture or in source emissions that is present in quantities significantly larger than the air contaminant.

(14) "Full Span Range" (FSR) - The full range of values or data display output that a monitor component is calibrated to measure.

(15) "Linearity Error" (LE) - The percentage error in linearity expressed in terms of the ratio of the absolute value of the difference between the reference value and the mean CEMS response value, to the reference value. LE is calculated as follows:

$$LE = \frac{\left|R - \overline{C}\right|}{R} \times 100$$

Where:

$\overline{C}$ = Mean of the CEMS response values

R = Certified gas concentration as reference value

(16) "Modification Requiring Recertification" - Any change to the basic equipment, control equipment, contaminant concentration, interfering substances, or CEMS that is deemed by the APCO to have a potential for adversely affecting the ability of the CEMS to provide accurate, precise and timely data representative of the stack emissions for which the CEMS (or SCEMS) is required.

(17) "Ninety-Five Percent Confidence Interval" - The statistical estimation denoting a range of values which is expected to include a true value with a 95 percent probability.

(18) "Operating Day" - Each calendar day that emissions pass through the stack or duct.

(19) "Operational Period" - A minimum period of 168 continuous hours during which the CEMS shall operate, according to the manufacturer's written performance and equipment specifications, without unscheduled maintenance, repair, or adjustment.

(20) "Quality Assurance/Quality Control (QA/QC) Plan" – A written document in which the specific procedures for the operation, Calibration and maintenance of a Certified CEMS are described in detail, including additional quality assurance assessments and the corrective action system. The purpose of this plan is to ensure that the CEMS generates, collects and reports valid data that is precise, accurate, complete, and of a quality that meets the requirements, performance specifications, and standards of Rules 218 and 218.1.

(21) "Reference Method" (RM) - The official test method employed by the District to determine compliance with the rules or permit conditions. A list of Reference Methods is identified in Table 1.

(22) "Relative Accuracy" (RA) - The absolute mean difference between the gas concentration or emission rate determined by the CEMS and the value determined by the RM plus 2.5 percent error of Confidence Coefficient of a series of tests, divided by the mean of the RM tests.

(23) "Relative Accuracy Audit" (RAA) - The RA test expressed in terms of the ratio of the relative difference between the mean Reference Method value and the mean CEMS response value, to the mean value determined by the Reference Method or applicable standard for concentration, flow or mass emission rate. Unless otherwise specified, RAA shall have the same specifications and requirements as the Relative Accuracy Test Audit (RATA), except that the RAA shall require a minimum of three (3) data sets. When a rule requires a correction of the air contaminant concentration to a specific O_2 or CO_2 concentration, the RA requirement shall apply to the corrected concentration value. The RA of a RAA data set is calculated and expressed as a percentage as follows:

$$RA = \frac{\bar{r} - \overline{RM}}{\overline{RM}} \times 100$$

Where:

$\overline{RM}$ = Mean of the values determined by the referenced method or applicable standard

$\bar{r}$ = Mean of the CEMS response values

(24) "Relative Accuracy Test Audit" (RATA) - The RA test expressed in terms of the ratio of the sum of the absolute mean difference between the CEMS-generated data and the value determined by the applicable Reference Method or applicable standard and the absolute Confidence Coefficient, to the mean of the Reference Method or applicable standard value for concentration, flow or mass emission rate. When a rule requires a correction of the air contaminant concentration to a specific O_2 or CO_2 concentration, the RA requirement shall apply to the corrected concentration value. The RA of a RATA data set is calculated and expressed as a percentage as follows:

$$RA = \frac{\left|\overline{d}\right| + \left|\overline{CC}\right|}{\overline{RM}} \times 100$$

Where:

$\left|\overline{d}\right|$ = Absolute value of the mean difference

$\left|\overline{CC}\right|$ = Absolute value of the 95% Confidence Coefficient

$\left|\overline{RM}\right|$ = Average RM value or applicable standard

The arithmetic mean of the difference, d, of a set of data is calculated as follows:

$$\overline{d} = \frac{1}{n}\sum_{i=1}^{n} d_i$$

Where:

$\sum_{i=1}^{n} d_i$ = Algebraic sum of the individual differences d_i

d_i = The difference between the Reference Method value and the CEMS value, both in units of the applicable standard

n = Number of data points

(25) "Response Time" - The time interval from a step change in the air contaminant or gas diluent concentration to the time when 95 percent of

the corresponding final value is reached as displayed on the CEMS data recorder or acquisition system. The Response Time is determined by introducing a Certified Gas Mixture into the CEMS upstream of the Sampling Interface and as close to the probe inlet as practicable.

(26) "Routine Maintenance" - Preventive evaluation and repair (if necessary) of CEMS performed at specified intervals to preclude System Failure. Routine Maintenance may be performed as recommended by the manufacturer or a documented standard operating procedure determined through operating experience and approved by the APCO. Repairs to a malfunctioning system are excluded from this definition.

(27) "Sampling Interface" - That part of the CEMS that performs sample acquisition using one (1) or more of the following operations: extraction, physical/chemical separation, transportation or conditioning of a representative sample from a designated source.

(28) "Semi-Continuous Emission Monitoring System" (SCEMS) - The total combined equipment and systems required to semi-continuously determine air contaminants and Diluent Gas concentrations and/or mass emission rate of a source effluent (as applicable). The SCEMS consists of three (3) major subsystems: Sampling Interface, Analyzer and Data Acquisition System. This class of monitoring includes but is not limited to gas chromatography, integrated sensitized tape analyzer, other sample integration based technologies, and time-shared CEMS.

(29) "South Coast Air Quality Management District" (SCAQMD) - The air quality district created pursuant to Division 26, Part 3, Chapter 5.5 of the California Health & Safety Code (commencing with §40400).

(30) "System Bias" - The difference between the gas concentrations exhibited by the CEMS when a calibration gas is introduced at a location upstream of the Sampling Interface, and as close to the sampling probe inlet as practicable, and when the same calibration gas is introduced directly to the Analyzer.

(31) "System Failure" - Inability of the CEMS to meet the requirements of Rule 218.1.

(32) "Time-Sharing" - A monitoring technique where an Analyzer and possibly the associated sample conditioning system is used on more than one (1) source.

(33) "Zero Check" - A procedure performed to determine the response of the CEMS to a given Zero Gas standard by means of injecting the Zero Gas into the CEMS as close to the probe tip as practical.

(34) "Zero Drift" (ZD) - The change in the monitoring system output/response over a stated period of time of normal continuous operation when the air contaminant or Diluent Gas concentration at the time of the measurements is zero. The values for ZD shall be expressed as the ratio of the sum of the absolute value of the mean of the difference between paired instrument response values and the absolute value of the CC, to the Full Span Range, calculated as a percentage as follows:

$$ZD = \frac{\left|\bar{d}\right| + \left|CC\right|}{S} \times 100$$

Where:

S	=	Full Span Range
$\left\|CC\right\|$	=	Absolute value of the Confidence Coefficient
$\left\|\bar{d}\right\|$	=	Absolute value of the mean difference. The mean difference is calculated as:

$$\left|\bar{d}\right| = \frac{1}{n}\sum_{i=1}^{n} d_i$$

Where:

$\sum_{i=1}^{n} d_i$	=	Algebraic sum of the individual differences d_i
n	=	Number of data pairs
d_i	=	The difference between a pair of instrument response values

(35) "Zero Gas" - A gas containing less than a specified amount of the contaminant or Diluent Gas which, when periodically injected into the CEMS, is used to check CEMS' response to the absence of the air contaminant or Diluent Gas.

(C) Standards for New or Modified CEMS

In order to be a Certified CEMS, a CEMS subject to the provisions of Rule 218, Sections (D)(1), (E)(1)(c), (E)(2)(c) and (E)(2)(d), as applicable, shall meet the operational requirements, performance specifications, and standards as follows:

(1) Pre-Certification Testing Requirements for New or Modified CEMS

Before any certification or Relative Accuracy test is performed, the CEMS shall meet the following standards:

(a) CEMS Location

The CEMS shall be installed at a location that enables measurements of air contaminant and Diluent Gas concentration, and flow rates can be made which are representative of the stack emissions of the source.

(b) Sampling Location

The monitoring system sampling probe tip and the Reference Method sampling port locations shall be determined according to SCAQMD Method 1.1. The monitoring sampling probe shall be located where a sample may be obtained which is representative of the source emissions. Each probe shall not interfere with the other when in use. Other locations may be chosen subject to a written approval of the APCO. If an alternate location is chosen which does not conform with SCAQMD Method 1.1, the absence of flow disturbance shall be demonstrated using the SCAQMD method in the source Test Manual, Chapter X, Section 1.4 – "Alternative Site Selection Method," or 40 CFR, Part 60, Appendix A, Method 1, Section 2.5 – "Alternative Measurement Site Selection Procedure," and, the absence of stratification shall be demonstrated using the SCAQMD method in the source Test Manual, Chapter X, Section 13 – "Determination of Gaseous Constituent Stratification". Alternatives to sampling site selection in the presence of stratification are presented in Rule 218.1 Section (C)(3)(c)(ii).

(c) Full Span Range

(i) The FSR for mass emission rate, air contaminant, diluent and flow analyzers shall be set such that all data points are within 10 to 95 percent of the range.

(ii) For air contaminant monitors, the FSR shall be set between 150 and 200 percent of the concentration limit as specified in the applicable rule or permit condition. The FSR may be set at a value other than that specified, but no lower than 120 percent, provided that the CEMS owner or operator demonstrates to the satisfaction of the APCO that the FSR will not be exceeded. Such demonstrations may include, but are not limited to, historical emissions data, historical process information, and historical operational information. A written approval from the APCO shall be obtained before

the FSR may be modified outside of the 150 to 200 percent of the concentration limit.

(iii) For air contaminant monitors, a multiple-span-range may be required to satisfy the provisions of Sections (c)(i) and (c)(ii) above in situations where the normal concentration of the air contaminant emitted is significantly less than the allowable concentration limit. The CEMS shall have the capability to automatically change from one range to the other as appropriate to the monitor's measured concentration.

(iv) For diluent monitors, the FSR shall be set such that the full range of O_2 and CO_2 concentrations can be measured. The FSR shall be set at 25.0 percent O_2 (maximum) and 1.0 percent CO_2 (minimum) concentrations, or at a value approved by the APCO.

(v) Should any data points fall below ten (10) percent of the FSR, those data points shall be reported according the following, as applicable:

a. For CEMS with certified multiple span ranges, the owner shall report data that falls below 10.0 percent of the higher FSR and above 95 percent of the lower FSR, at the 10.0 percent value of the higher FSR;

b. In the event that any of the data points gathered by the CEMS fall below 10.0 percent of the FSR, the owner or operator may elect to report the contaminant concentrations at the 10.0 percent FSR value; or

c. In the event that any data points gathered fall below 10.0 percent of the lowest vendor guaranteed FSR for that CEMS (defined as the lowest FSR that the vendor guarantees to be capable of meeting all current certification requirements of Rule 218 and Rule 218.1, as applicable) the owner or operator may elect to use the following to measure and report contaminant concentrations:

1. Report data at 10.0 percent FSR value; or
2. Report data at actual measured value, provided that the CEMS meets the Supplemental and Alternative Performance Requirements in Attachment A.

(vi) Should any data points fall above 95 percent of FSR, the value shall be invalid for quantification and the CEMS shall be considered unavailable for the purposes of determining CEMS Availability Percentage. All excursions above 95 percent of FSR and the duration of

these excursions shall be reported in the CEMS summary report as prescribed under Rule 218 Section (G).

(d) Strip Chart Recorder

(i) For CEMS where the strip chart recorder is used as the only means of data recording, the strip chart shall have a minimum width of at least 10 inches, a readability of 0.5 percent of the span, and a minimum of 100 chart divisions.

(ii) For CEMS where the strip chart recorder is used as a backup system or for recording data from only a single parameter, a strip chart of lesser size than specified in Section (d)(i) above, may be proposed in the application.

(iii) For CEMS equipped with multiple-span ranges, the chart recorder shall have the capability to automatically change span, as appropriate.

(e) Data Acquisition System (DAS)

(i) The DAS shall maintain all recorded data in accordance with Rule 218, Section (F).

(ii) For CEMS, DAS shall acquire data from monitored parameters at least once every minute.

(iii) For SCEMS, DAS shall acquire data from monitored parameters at least once every 15 minutes.

(iv) DAS acquisition rate shall be set at a constant rate such that the data points are equally spaced.

(v) All valid data points shall be used to determine compliance with applicable limit(s), and, for certification testing and RATA(s).

(vi) DAS sample acquisition rate during certification and RATA(s) shall be the same as the DAS sample acquisition rate during normal CEMS, or SCEMS, operation.

(f) Operational Period

(i) The Operational Period before any certification tests shall be a minimum of 168 continuous hours.

(2) Certification Requirements and Performance Specifications for New or Modified CEMS

Rule 218 Section (D)(1) provides that a series of certification tests shall be performed to demonstrate the acceptability of CEMS performance. The requirements and specifications in conducting initial certification tests follow:

(a) Calibration Error (CE) Testing

The 24-Hour CE Test shall be performed at the low and high ranges, namely 0 to 20 and 80 to 100 percent of FSR, respectively. CE specifications shall be less than or equal to:

(i) 2.5 percent of the FSR for all Analyzers; and
(ii) 3.0 percent of the FRS of the Analyzer, for flow monitors, when an electronic Calibration Check is applicable.

The 24-hour CE Test shall be performed once each day as close to 24-hour intervals as practicable, with a total of eight (8) consecutive tests performed. The CE specifications shall not be exceeded on any of the tests during the entire testing period.

(b) Analyzer Enclosure

(i) The Analyzer shall be contained in an environmentally controlled enclosure. An alarm and recording device shall be incorporated into the system to alert the operator to make corrective action should the Analyzer exceed the manufacturer's recommended specifications for temperature drift.
(ii) Alternatively, the owner or operator of the CEMS may choose to perform the 2-hour CE Tests in lieu of meeting the Analyzer enclosure requirement in Section (C)(2)(b)(i). The 2-hour CE Test shall be performed once every two (2) hours as close to 2-hour intervals as practicable, with total of thirteen consecutive tests performed. The 2-hour CE Test shall be performed when ambient temperature is expected to vary diurnally at least 30°F. The test shall be performed at the low and high ranges of FSR, namely 0 to 20 and 80 to 100 percent, respectively. The specifications in Sections (C)(2)(a)(i) and (ii) shall apply to 2-hour CE.
(iii) The owner or operator of the CEMS may qualify for an exemption from Section (C)(2)(b)(i) to provide environmental controls for the Analyzer enclosure by demonstrating, to the satisfaction of the APCO, that the CEMS is located:
    a. In a geographic area where seasonal high and low temperatures do not exceed the operational temperature specifications for the Analyzer;
    b. In a geographic area where monthly maximum temperature variation is less than 30°F for all months of the year; and
    c. The CEMS is located in a site that is protected from radiation and convection heating sources.

(c) Relative Accuracy

RATA shall be performed for raw contaminant concentration, and if applicable, for corrected concentration, emission rate, O_2 concentration, CO_2 concentration analyzers, and stack and fuel flow monitors. There shall be a minimum of nine (9) sets of test data generated. If the number of tests exceeds nine (9) sets, data may be discarded if it is identified as an outlier by the technical guidance set forth by the APCO, or for valid reasons (e.g., process upsets, CEMS malfunction, etc.) which must be substantiated with appropriate documentation and subject to approval by the APCO. All data collected shall be submitted to the APCO. The CEMS shall meet the following RA performance specifications:

(i) Less than or equal to 20.0 percent of the mean value of the Reference Method for pollutant concentrations, or the de minimus concentration as follows, whichever is greater:

Pollutant	De minimus Concentration
SO_2	2.0 ppm
Reduced sulfur compounds	4.0 ppm

(ii) Less than or equal to 10.0 percent of the mean value of the Reference Method for diluent concentrations, or the de minimus value of 1.0 percent O_2, whichever is greater.

(iii) Less than or equal to 15.0 percent of the mean value of the Reference Method for flow monitors, or the de minimus value equivalent to a calculated volumetric flow rate based on two (2) feet per second stack gas velocity for cases where the mean stack gas velocity obtained by the Reference Method test is less than 15 feet per second.

(iv) Less than or equal to 20.0 percent of the mean value of the Reference Method for mass emission rates, or the de minimus value equivalent to a calculated mass emission rate based on two (2) feet per second stack gas velocity for cases where the mean stack gas velocity obtained by the Reference Method test is less than 15 feet per second.

The Relative Accuracy requirement may be met if the average of the differences between the CEMS measured data and the Reference Method test data plus the Confidence Coefficient is less than or equal to the Relative Accuracy de minimus value.

(3) Relative Accuracy Test Requirements for New or Modified CEMS

Within fourteen days of, or during all Relative Accuracy tests, the CEMS shall meet the following requirements, except those that may be waived as allowed in Rule 218.1, Section (C)(4)(c):

(a) Response Time

The Response Time for carbon monoxide (CO) CEMS shall not exceed 1.5 minutes except where there is a technical limitation, in which case the Response Time shall be five (5) minutes. The Response Time for all other CEMS and flow monitors, as applicable, shall not exceed five (5) minutes.

(b) Calibration Error

The CE Testing requirements are specified in Section (C)(2)(a).

(c) Concentration Stratification

(i) The owner or operator shall demonstrate the absence of stratification through testing performed according to the method in Chapter X, Section 13 - "Non-Standard Methods and Techniques", of the SCAQMD Source Testing Manual. The number of tests shall be determined as follows:

a. Test(s) shall be conducted at one (1) load level if the owner or operator demonstrates to the satisfaction of the APCO that the equipment operates within a 20 percent load range for at least 80 percent of the time;

b. Test(s) shall be conducted at two (2) different load levels if the owner or operator demonstrates to the satisfaction of the APCO that the equipment operates within a 50 percent load range for at least 80 percent of the time; or,

c. Test(s) shall be conducted at three (3) different load levels if the equipment operates outside of the criteria in Sections (C)(3)(c)(i)[a] and [b].

The absence of stratification is considered verified if the difference between the highest measured concentration (time normalized) and the lowest measured concentration (time normalized) divided by the average measured concentration (time normalized), when expressed as a percentage, is less than or equal to 10 percent. Upon verification of the absence of stratification, the owner or operator may position the CEMS sampling probe at any point within the stack with the exception of those points that are adjacent to the stack wall. The CEMS sampling probe should be located in the stack at least one-third of the stack diameter. The RM for RATA may be conducted at a single point

within the stack that is not adjacent to the stack wall and does not interfere with the sampling and the operation of the facility CEMS.

(ii) Should testing demonstrate the presence of stratification, the owner or operator may elect one (1) of the following alternatives:

a. If the stratification is greater than 10 percent but the difference between the highest measured concentration (time normalized) and the lowest measured concentration (time normalized) is less than or equal to 1.0 ppmv:

1. Then the CEMS sampling probe may be located at any point within the stack except any points that is adjacent to the stack or adjacent to the highest measured concentration (time normalized) and the lowest measured concentration (time normalized); or

2. If it is not possible to avoid using a point adjacent to either the highest measured concentration (time normalized) or the lowest measured concentration (time normalized), then locate the CEMS sampling probe such that the placement minimizes the difference between the concentration at the proposed probe location and the concentration at the point of highest measured concentration (time normalized) or the lowest measured concentration (time normalized).

b. Determine a representative CEMS probe location such that the following criteria are met:

1. All traverse point concentrations are within 10.0 percent of the average of all traverse point concentrations (time normalized), or, the difference is less than or equal to 1.0 ppm, whichever is greater;

2. There exists at least one (1) traverse point concentration (Xr), not located next to the stack or duct wall, that is less than or equal to 10.0 percent each adjacent traverse point concentration of Xr, or the difference is less than or equal to 1.0 ppm, whichever is greater; and

3. The CEMS probe is located at (or as near as practical) Xr with minimum adjacent

traverse point concentration fluctuations as determined in Section (C)(3)(c)(ii)[b][2], above.

c. Determine a representative multiple point sampling configuration as approved by the APCO, following the guidance document by Emission Measurement Technical Information Center, "Evaluation Procedure for Multi-Hole Sample Probes" (EMTIC GD-031).

d. Modify the stack and/or CEMS sampling probe location and retest for the absence of stratification.

(d) Cyclonic Flow

The owner or operator shall perform tests to verify the absence of cyclonic flow for the CEMS and Reference Method sampling probes. The cyclonic flow test shall be required when measuring mass emission rates and shall be performed according to the SCAQMD method in the Source Test Manual, Chapter X: Non-Standard Methods and Techniques following the testing conditions of Section (C)(3)(c)(i)[a], [b] or [c], as applicable.

(e) Interference

The owner or operator shall perform tests to verify the absence of sampling, analytical and flow interference, as applicable.

(f) Linearity Error

LE tests shall be performed at the low, middle and high ranges of concentration, namely 20 to 30, 50 to 60, and 80 to 100 percent. Each calibration gas shall be introduced into the CEMS three (3) times. The same gas shall not be used twice in succession. LE shall be less than or equal to 5.0 percent of the calibration gas concentration.

(g) Multiple-Span-Range

For CEMS that have multiple-span-range, all certification tests shall be performed at the lowest range. Except for RA and interference tests, all other certification tests shall be performed on other ranges.

(4) Operational Requirements and Performance Specifications for New or Modified CEMS

After final approval, the CEMS shall be subsequently operated and maintained according to the following requirements and specifications:

(a) 24-Hour CE

CE Tests shall be performed once each Operating Day as close to 24 hour intervals as practicable at the low (0 to 20 percent) and high (80 to 100 percent) ranges of concentration. CE Test results which are greater than the limits specified in Sections (C)(2)(a)(i) and (ii), but less than or equal to 5.0 percent of the FSR shall be addressed by QA/QC Plan remediation. The CEMS shall be deemed out-of-control during such period when any CE Test result is greater than the specified limits and greater than 5.0 percent of the Full Span Range, until the CE Test meets the specifications. All data generated by the CEMS during an out-of-control period shall be deemed invalid but shall not be deleted or excluded from the records or database.

(b) System Bias Test

A System Bias shall be conducted every 12 months in conjunction with RAA required under Rule 218.1 Section (C)(4)(c). The CEMS System Bias shall not exceed ±5.0 percent of the FSR for contaminant Analyzers. In addition, the owner or operator shall include in the facility QA/QC Plan, criteria for excessive drift (e.g. control limits on cumulative drift) and appropriate diagnostic techniques to identify sources of Analyzer drift and System Bias when control limits are exceeded.

(c) Relative Accuracy Testing

RATA and RAA, as applicable, shall be performed at least once every 12 months. The test shall be completed annually no later than the end of the calendar quarter in which the date of the original certification test was performed. During any RA tests after CEMS certification, the owner or operator may request a waiver from stratification, cyclonic flow, and/or interference requirements in Sections (C)(3)(c), (d) and (e), respectively, by submitting to the APCO, for approval, any applicable documentation or previous test or historical data that meets the stratification, cyclonic flow, and/or interference requirements.

(d) Cylinder Gas Audit (CGA)

A CGA shall be performed every calendar quarter but in no more than three (3) quarters in succession. The CGA shall be conducted according to the provisions of 40 CFR 60, Appendix F. The audit gases shall be according to the certification requirements of Rule 218.1.

(e) The APCO may require recertification of the CEMS if the annual availability percentage is below 95 percent. Annual CEMS Availability Percentage calculations will be based on the year ending on the last day of the calendar quarter in which the CEMS was originally certified.

(f) The owner or operator of a CEMS that requires moisture correction in reporting flow and concentration shall measure and monitor moisture in the stack gas used for emission data calculations in accordance with the written technical guidance document set forth by the APCO. Alternatively, with APCO approval, for equipment whose moisture source is only from fuel combustion, the operator may calculate the moisture content using fuel properties and ambient air humidity data or, for processes that saturate the exhaust gas with moisture, such as a wet scrubber system, the operator may use the saturation temperature for moisture content data.

(D) Standards for Existing CEMS

In order to be a Certified CEMS, a CEMS subject to the provisions of Rule 218 Sections (E)(1) and (E)(2), shall meet the following operational requirements and performance specifications, and the standards of Rule 218.1 Section (E):

(1) Performance Specifications for Existing Gaseous Air Contaminant CEMS

	Parameter	Specifications
(a)	Operational Period	Greater than or equal to 168 hours
(b)	Calibration Error	Less than or equal to 5 percent of the calibration gas value
(c)	Response Time	Less than or equal to 10 minutes
(d)	Zero Drift (2-hour)	Less than or equal to 2 percent of FSR
(e)	Zero Drift (24-hour)	Less than or equal to 2 percent of FSR
(f)	Calibration Drift (2-hour)	Less than or equal to 2 percent of FSR
(g)	Calibration Drift (24-hour)	Less than or equal to 2.5 percent of FSR
(h)	Relative Accuracy	Less than or equal to 20 percent of the mean value of the RM test data, or, less than or equal to 10 percent of the allowed concentration, whichever is greater

(2) Performance Specifications for Existing Diluent Gas CEMS

	Parameter	Specifications
(a)	Operational Period	Greater than or equal to 168 hours
(b)	Calibration Error	Less than or equal to 5 percent of the calibration gas value
(c)	Response Time	Less than or equal to 10 minutes
(d)	Zero Drift (2-hour)	Less than or equal to 0.4 percent CO_2 or O_2
(e)	Zero Drift (24-hour)	Less than or equal to 0.5 percent CO_2 or O_2
(f)	Calibration Drift (2-hour)	Less than or equal to 0.4 percent CO_2 or O_2
(g)	Calibration Drift (24-hour)	Less than or equal to 0.5 percent CO_2 or O_2

(3) Full Span Range for Existing CEMS

The instrument FSR shall be equivalent to approximately 200 percent of the concentration limit as specified in the applicable rule, or at a value approved by the APCO. O_2 and CO_2 instrument full span readings shall be such that the full range of concentrations encountered can be measured.

(4) Cycle of Operation for Existing CEMS

The CEMS shall complete a minimum of one (1) cycle of operation (sampling, analyzing and data recording), for each successive 15 minute period.

(E) Standards, Specifications and Requirements for New, Modified and Existing CEMS:

(1) Calibration Gas

(a) Calibration gas mixtures, as defined in Rule Section 218.1 (B)(8), shall be manufactured, analyzed and certified in accordance with the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards" - EPA-600/R97/121, September 1997 Revision (EPA Protocol). The certification period and

recertification requirements, as applicable, shall be according to the EPA Protocol.

(b) For gas calibration standards not explicitly covered by the EPA Protocol, the CEMS owner or operator shall submit the gas manufacturer's alternative certification protocol for the specific compound or compounds.

(i) The procedures of the EPA Protocol shall be used for gas calibration standards not explicitly covered therein, except that the gas manufacturer must identify a recertification period and submit data documenting the applicability of this period. The gas manufacturer may submit alternative performance standards for certification and recertification, based on supporting technical data also provided by the manufacturer. This alternative shall be subject to the approval of APCO.

(ii) If there is no existing National Institute of Standards and Technology (NIST) standard for the measured parameter, the gas manufacturer may submit an alternative reference standard and the supporting technical data that define the stability, accuracy, and precision of the alternative reference standard. This alternative shall be subject to the approval of APCO.

(iii) The CEMS owner or operator may submit an alternative protocol to the EPA Protocol, provided that the CEMS owner or operator demonstrates through supporting technical data that the procedures therein are not applicable to the constituent in the calibration gas standard being certified. This alternative shall be subject to the approval of APCO.

(c) Compressed and/or filtered air, such as instrument air, may also be used in lieu of oxygen span gas provided that the CEMS owner or operator demonstrates, to the satisfaction of the APCO, that it is of equivalent quality to the calibration gas standards above. As part of such documentation, the owner or operator shall include in their QA/QC Plan the process or operation in producing such compressed and/or filtered air and periodically checking that compressed air and/or filtered air continues to meet the calibration gas standards.

(2) Zero Gas

Zero Gases used shall meet the following criteria:

(a) For gaseous air contaminant monitors, the Zero Gas shall be certified by the manufacturer to contain no more than 0.1 ppm of the air contaminant analyzed by the subject monitor or 1.0 percent of the applicable standard, whichever is less.

(b) For CO monitors, the Zero Gas shall be certified by the manufacturer to contain less than 0.5 ppm carbon CO or 1.0 percent of the applicable standard, whichever is less.

(c) For CO_2 and O_2 monitors, the Zero Gas shall be certified by the manufacturer to contain less than 1.0 ppm CO_2 or O_2.

(d) Compressed and/or filtered air, such as instrument air, may also be used in lieu of Zero Gas provided that the CEMS owner or operator demonstrates, to the satisfaction of the APCO, that it is of equivalent quality to the above Zero Gas standards. As part of such documentation, the owner or operator shall include in their QA/QC plan the process or operation in producing such compressed and/or filtered air and periodically checking that compressed air and/or filtered air continues to meet the Zero Gas standards.

(3) Automatic Calibration Data

If automatic adjustments to the monitor settings are made, conduct the calibration tests in a way that the magnitude of the adjustments can be determined and recorded.

(4) F-Factors

The owner or operator shall use in the CEMS calculations the Fd factors listed in 40 CFR Part 60, Appendix A, Method 19, Table 19-1, as applicable. When alternative fuels are fired, the owner or operator shall submit data to develop Fd factors and obtain APCO approval.

(5) NO_2 to NO Conversion Efficiency

The conversion efficiency tests shall be conducted according to the requirements of SCAQMD Method 100.1. The value for the NO_2 gas shall be greater than or equal to the maximum expected or recorded NO_2 and greater than or equal to 20 percent of the FSR.

(F) Time-Sharing Requirements

A time-shared CEMS for which an application is submitted after July 17, 2012 shall meet all of the performance specifications as well as the following requirements:

(1) All sources shall have mutually compatible range(s) of air contaminant gases at all times.

(2) Each source shall have a data-reading period, at a minimum, equal to three (3) times the longest Response Time of the system. For shared systems the Response Time is measured at the input or probe at each source. A demonstration of Response Time for each source shall be made during certification testing. Data are not to be collected following a switch of sample sources until a period of time equal to one (1) Response Time has passed.

(3) The CEMS shall be capable of performing and recording zero and span calibrations at each source, including the calibration factors and correction values before and after every automatic Calibration.

Table 1
REFERENCE METHODS
RULE 218.1

SCAQMD Method 1.1	Sample and Velocity Traverses for Stationary Sources
SCAQMD Method 1.2	Sample and Velocity Traverses for Stationary Sources with Small Stack or Ducts
SCAQMD Method 2.1	Determination of Stack Gas Velocity and Volumetric Flow Rate (S-type Pitot tube)
SCAQMD Method 2.2	Direct Measurement of Gas Volume through Pipes and Small Ducts
SCAQMD Method 2.3	Determination of Gas Velocity and Volumetric Flow Rate from Small Stacks or Ducts
SCAQMD Method 3.1	Gas Analysis for Dry Molecular Weight and Excess Air
SCAQMD Method 4.1	Determination of Moisture Content in Stack Gases
SCAQMD Method 6.1	Determination of Sulfuric Acid and Sulfur Oxides from Stationary Sources
SCAQMD Method 7.1	Determination of Nitrogen Oxide Emissions for Stationary Sources
SCAQMD Method 100.1	Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling
SCAQMD Method 307.91	Determination of Sulfur in a Gaseous Matrix
EPA Method 6	Determination of Sulfur Dioxide Emissions from Stationary Sources
EPA Method 19	Determination of Sulfur Dioxide Removal Efficiency and Particulate, Sulfur Dioxide and Nitrogen Oxides Emission Rates from Electric Utility Steam Generator (40 CFR Part 60, Appendix A)
ASTM Method D 4294-03	Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-Ray Fluorescence Spectrometry
ASTM Method D2622 -05	Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry

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ATTACHMENT A

SUPPLEMENTAL AND ALTERNATIVE CEMS PERFORMANCE REQUIREMENTS

(A) Applicability of Supplemental and Alternative Performance Requirements

The CEMS operator who elects (or who may be required) to measure concentrations that fall below 10 percent of the lowest vendor guaranteed full scale span range, shall satisfy the performance requirements as specified in Table A-1 listed below.

TABLE A-1
Alternative Performance Requirement(s)

CEMS Certified per Rule 218.1 Yes or No	**Performance Requirement(s)**			
	LLSR/BFD	**HLSR/BFD**	**LLR/BFD**	**LLCE**
Yes	X		+	X
No	X	X	+	X

(1) + (plus) denotes an additional performance requirement that shall be conducted if the mandatory performance requirement(s) cannot be met.

(2) If the concentration of the CEMS is such that the specifications for the low level spike recovery/bias factor determination cannot be met, the facility permit holder shall conduct a low level RATA/bias factor determination.

(3) Abbreviations used in this attachment are:

Low Level Spike Recovery/Bias Factor Determination (LLSR/BFD)
High Level Spike Recovery/Bias Factor Determination (HLSR/BFD)
Low Level RATA/Bias Factor Determination (LLR/BFD)
Low Level Calibration Error (LLCE)
Relative Accuracy Test Audit (RATA)
Relative Accuracy (RA)
National Institute of Standards Traceability (NIST)

(B) Test Definitions, Performance Specifications and Test Procedures

This section explains in detail how each performance requirement is to be conducted.

(1) Low Level Calibration Error

The low level CE test is defined as challenging the CEMS (from probe to monitor) with certified calibration gases (e.g., NO in N_2) at three (3) levels in the 0-20 percent Full Span Range. Since Certified Gas Mixtures or standards may not be available at the concentrations required for this test, gas dilution systems may be used, with District approval, if they are used according to either District or EPA protocols as specified in Rule 218.1, for the verification of gas dilution systems in the field. The CEMS high-level calibration gas may be diluted for the purpose of conducting the low level CE test.

(a) Performance Specifications

Introduce pollutant concentrations at approximately the 20 percent, 10 percent, and 5 percent of full span levels through the normal CEMS Calibration system. No low level CE shall exceed 2.5 percent of full scale span.

(b) Testing Procedures

(i) Perform a standard zero/span check; if zero or span check exceeds 2.5 percent full span, adjust monitor and redo zero/span check.
(ii) After zero/span check allow the CEMS to sample stack gas for at least 15 minutes.
(iii) Introduce any of the low level CE or standards through the CEMS Calibration system.
(iv) Read the CEMS response to the calibration gas starting no later than three (3) system Response Times after introducing the calibration gas; the CEMS response shall be averaged for at least three (3) Response Times and for no longer than six (6) Response Times.
(v) After the low level CE check allow the CEMS to sample stack gas for at least 15 minutes.
(vi) Repeat steps (iii) through (v) until all three (3) low level CE checks are complete.
(vii) Conduct post test calibration and Zero Checks.

(2) Spike Recovery and Bias Factor Determinations

Spiking is defined as introducing known concentrations of the pollutant of interest (e.g., gas standard to contain a mixture of NO and NO_2 is representative of the ratio of NO and NO_2 in stack gas) and an appropriate non-reactive, noncondensable and non-soluble tracer gas from a single cylinder (EPA Protocol as specified in Rule 218.1 or NIST traceable to two (2) percent analytical accuracy if no EPA Protocol is available) near the probe and upstream of any sample conditioning systems, at a flow rate not to exceed 10 percent of the total sample gas flow rate. The purpose of

the 10 percent limitation is to ensure that the gas matrix (water, CO_2, particulates, interferences) is essentially the same as the stack gas alone. The tracer gas is monitored in real time and the ratio of the monitored concentration to the certified concentration in the cylinder is the dilution factor. The expected pollutant concentration (dilution factor times the certified pollutant concentration in the cylinder) is compared to the monitored pollutant concentration.

(3) High Level Spike Recovery/Bias Factor Determination

The high level spike recovery/bias factor determination is used when it is technologically not possible to certify the CEMS per the standard Rule 218.1 requirements. The spiking facility/interface shall be a permanently installed part of the CEMS sample acquisition system and accessible to the APCO as well as the CEMS operator.

(a) Performance Specifications

The CEMS shall demonstrate a RA $\leq$20 percent, where the spike value is used in place of the Reference Method in the normal RA calculation, as described below.

(b) Testing Procedures

(i) Spike the sample to the CEMS with a calibration standard containing the pollutant of interest and CO or other non-soluble, non-reacting alternative tracer gas (alternative tracer gas) at a flow rate not to exceed 10 percent of the CEMS sampling flow rate and of such concentrations as to produce an expected 40-80 percent of full scale span for the pollutant of interest and a quantifiable concentration of CO (or alternative tracer gas) that is at least a factor of 10 higher than expected in the unspiked stack gas. The calibration standards for both pollutants of interest and CO (or alternative tracer gas) must meet Rule 218.1 requirements.

(ii) Monitor the CO (or alternative tracer gas) using an appropriate continuous (or semi-continuous if necessary) monitor meeting the requirements of SCAQMD Method 100.1 and all data falling within the 10-95 percent full scale span, and preferably within 30-70 percent full scale span.

(iii) Alternate spiked sample gas and unspiked sample gas for a total of nine (9) runs of spiked sample gas and ten runs of unspiked sample gas. Sampling times should be sufficiently long to mitigate Response Time and averaging effects.

(iv) For each run, the average CEMS reading must be between 40 percent full scale span and 80 percent full scale span. If not, adjust spiking as necessary and continue runs, but expected spike must represent at least 50 percent of the total pollutant value read by the CEMS.

(v) Calculate the spike recovery for both the pollutant and the CO (or alternative tracer gas) for each run by first averaging the pre- and post-spike values for each run and subtracting that value from the spiked value to yield nine (9) values for recovered spikes.

(vi) Using the CO (or alternative tracer gas) spike recovery values for each run and the certified CO (or alternative tracer gas) concentration, calculate the dilution ratio for each run. Multiply the certified pollutant concentration by the dilution factor for each run to determine the expected diluted pollutant concentrations. Using the expected diluted concentrations as the "Reference Method" value, calculate the Relative Accuracy. The RA shall be $\leq$20 percent.

(4) Low Level Spike Recovery/Bias Factor Determination

The low-level spike recovery/bias factor determination is used to determine if a significant bias exists at concentrations near the 10 percent full scale span level. The spiking facility/interface shall be a permanently installed part of the CEMS sample acquisition system and accessible to the APCO staff as well as the CEMS operator.

(a) Performance Specifications

There are no pass/fail criteria with respect to the magnitude of the percent RA. There are performance criteria for the range of concentration on the CEMS the extent to which the spike must be greater than the background pollutant level.

(b) Testing Procedures

(i) Spike the sample to the CEMS with a calibration standard containing the pollutant of interest and CO or other non-soluble, non-reacting alternative tracer gas (alternative tracer gas) at a flow rate not to exceed 10 percent of the CEMS sampling flow rate and of such concentrations as to produce an expected 10-25 percent of full scale span for the pollutant of interest and a quantifiable concentration of CO (or alternative tracer gas) that is at least a factor of 10 higher than expected in the unspiked stack gas. The calibration standards for both pollutants of interest and CO

(or alternative tracer gas) must meet Rule 218.1 requirements.

(ii) Monitor the CO (or alternative tracer gas) using an appropriate continuous (or semi-continuous if necessary) monitor meeting the requirements of SCAQMD Method 100.1 and all data falling within the 10-95 percent full scale span, and preferably within 30-70 percent full scale span.

(iii) Alternate spiked sample gas and unspiked sample gas for a total of nine (9) runs of spiked sample gas and ten runs of unspiked sample gas. Sampling times should be sufficiently long to mitigate Response Time and averaging effects.

(iv) For each run, the average CEMS reading must be below 25 percent full scale span and >10 percent full scale span. If not, adjust spiking as necessary and continue runs; but expected spike must represent at least 50 percent of the total pollutant value read by the CEMS.

(v) Calculate the spike recovery for both the pollutant and the CO (or alternative tracer gas) for each run by first averaging the pre- and post-spike values for each run and subtracting that value from the spiked value to yield nine (9) values for recovered spikes.

(vi) Using the CO (or alternative tracer gas) spike recovery values for each run and the certified CO (or alternative tracer gas) concentration, calculate the dilution ratio for each run. Multiply the certified pollutant concentration by the dilution factor for each run to determine the expected diluted pollutant concentrations. Using the expected diluted concentrations as the "Reference Method" value, calculate the RA as specified in Rule 218.1. If the average difference is less than the CC then no low level bias factor is applied. If the average difference is greater than the CC and the average expected spike is less than the average CEMS measured spike, then no low level bias factor is applied. If the average difference is greater than the CC and the average expected spike is greater than the average CEMS measured spike, then a low level bias factor equal to the absolute value of the average difference is added to data reported at or below the 10 percent of full scale span.

(5) Low Level RATA/Bias Factor Determination using Enhanced Reference Method 6.1

A low level RATA/bias factor determination is designed to determine if there exists a statistically significant bias at low level concentrations. It consists of nine (9) test runs that measure the stack concentration and the CEMS concentration concurrently.

(a) Performance Specifications

There are no pass/fail criteria with respect to the magnitude of the percent Relative Accuracy. There are performance criteria for the special RATA with respect to the Reference Method and range of concentration on the CEMS.

(b) Testing Procedures

The Reference Method for the low level RATA/bias factor determination is SCAQMD Method 100.1

(i) Perform a minimum of nine (9) runs of low level RATA for CEMS versus the Reference Method at actual levels (unspiked).
(ii) The full scale span range for the Reference Method shall be such that all data falls with 20 - 95 percent of full scale span range.
(iii) The Reference Method shall meet all SCAQMD Method 100.1 performance criteria.
(iv) Calculate the average difference (d = CEMS - Reference Method, ppm) and CC (cc = statistical calculated, ppm).
(v) If $d > 0$ then the bias = 0 ppm; if $d < 0$ and $|d| > cc$ then bias = d; if $d < 0$ and $|d| < cc$ then bias = 0 ppm.

(C) Testing Frequency

For each CEMS, perform the aforementioned performance requirements once a year thereafter. These annual assessments shall be completed within six (6) months of the end of the calendar quarter in which the CEMS was originally certified.

See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921

(**Adopted:** 01/09/76; **Amended:** 10/08/76; **Amended:** 01/02/79; **Amended:** 10/05/79; **Amended:** 09/04/81; **Amended**: 06/08/88; **Amended:** 09/11/92; **Amended:** 08/12/94; **Amended:** 12/13/96; **Amended:** 03/17/98; **Amended:** 07/21/98; **Amended:** 01/16/01; **Amended:** 11/15/05; **Amended:** 01/18/11; **Amended:** 10/18/16; **Amended:** 06/15/21)

RULE 219
Equipment Not Requiring a Permit

(A) Purpose

(1) The purpose of this rule is:

(a) To describe equipment that does not require a permit pursuant to District Rules 201 and 203; and

(b) To describe equipment which does not need to be listed on an application for a Federal Operating Permit (FOP) or on a FOP issued pursuant to District Regulation XXX – *Title V Permits*.

(B) General Provisions

(1) The Air Pollution Control Officer (APCO) shall not require an owner/operator to obtain a permit for particular equipment pursuant to District Rules 201 and 203 if all of the following are true:

(a) Such equipment is contained in the list of particular Equipment in section (E) below; and

(b) Such Equipment does not emit air contaminants in excess of any of the following:

(i) 2 tons per year of any Regulated Air Pollutant for which a National Ambient Air Quality Standard has been promulgated;
(ii) A de minimis level for a Hazardous Air Pollutant promulgated pursuant to 42 U.S.C. §7412 (FCAA §112).
(iii) A significance level defined in 40 CFR 52.21(b)(23)(i);
(iv) 0.5 tons per year of a Hazardous Air Pollutant.

(c) Such Equipment does not constitute any of the following:

(i) A Major Facility as defined in Rule 1301, or
(ii) A Major Modification as defined in Rule 1301, or
(iii) A Major PSD Facility as defined in Rule 1700, or
(iv) A Major PSD Modification as defined in Rule 1700.

(d) The owner/operator has not been required to obtain a written permit or registration by the APCO pursuant to subsection (B)(4) below.

(2) The APCO shall not require an Owner/Operator to list particular equipment on an application for a FOP or require the listing of such equipment within a FOP issued pursuant to District Regulation XXX – *Title V Permits* if:

(a) Such equipment is described in the list of particular equipment in section (E) below; and

(b) Such equipment emits Air Pollutants, in an amount less than the threshold levels set forth in subsection (D)(1) below; and

(c) Such equipment is not subject to an Applicable Requirement and information regarding such equipment is not required to determine the applicability of an Applicable Requirement; and

(d) Such equipment is not included in section (E) below solely due to size or production rate.

(3) The APCO shall not require an owner/operator of an Agricultural Facility to obtain a permit for equipment located at such a Facility which would otherwise be subject to permit pursuant to District Rules 201 and 203 if:

(a) The Agricultural Facility emits Air Contaminants in an amount less than the threshold levels listed in subsection (D)(2)(b); or

(b) The Agricultural Facility is a Confined Animal Facility eligible for exclusion under subsection (D)(2)(a); and

(c) The Agricultural Facility is or particular agricultural equipment potentially exempt under this subsection is not otherwise:

(i) A Major Facility pursuant to District Regulation XIII – *New Source Review* or a Major PSD Facility pursuant to District Regulation XVII – *Prevention of Significant Deterioration*; and
(ii) Subject to regulation pursuant to the Federal Clean Air Act ("FCAA", 42 U.S.C. Sec. 7401 et. seq.).

(4) Notwithstanding subsections (B)(1), (B)(2), and (B)(3) above, the APCO may require a written permit or registration for equipment listed in section (E) below, making the equipment thereafter subject to District Rules 201 and 203, if:

(a) Written notification is given to the equipment Owner/Operator; and

(b) The APCO determines that:

(i) The equipment, process material or Air Contaminant is subject to provisions of District Regulation IX – *Standards of Performance for New Stationary Sources*, or District Regulation X – *National Emissions Standards for Hazardous Air Pollutants*, or District Rule 1401 – *New Source Review for Toxic Air Contaminants*; or

(ii) The process, article, machine, equipment, other contrivance, process material or Air Contaminant is subject to the emission limitation requirements of the state Air Toxic Control Measure (ATCM), New Source Performance Standards (NSPS) National Emission Standards for Hazardous Air Pollutants (NESHAP), Maximum Available Control Technology (MACT) or any source specific prohibitory rule; or

(iii) The process, article, machine, equipment, or other contrivance emits, in quantities determined to be appropriate for review by the APCO, substances identified as Toxic Air Contaminants or which are under review as candidate Toxic Air Contaminants by the California Air Resources Board, or United States Environmental Protection Agency (USEPA); or

(iv) The equipment may not operate in compliance with all applicable District Rules and Regulations.

(5) Nothing in this rule shall be interpreted to exempt the emissions from such equipment from being considered in any emissions calculations required pursuant to District Regulation XIII – *New Source Review*, District Rule 1401 – *New Source Review for Toxic Air Contaminants*; Regulation XVII – *Prevention of Significant Deterioration* and/or Regulation XXX – *Title V Permits* unless such emissions are specifically exempted by the terms of those Regulations.

(6) Nothing in this rule shall be interpreted to exempt Equipment, materials used by such Equipment and/or associated air pollution Control Equipment from any applicable provisions of any other District Rule or Regulation.

(7) Nothing in this Rule shall be interpreted to exempt air pollution Control Equipment venting otherwise permit exempt Equipment from obtaining permits. This provision does not apply if all Equipment venting to the Control Equipment is exempt and all relevant provisions of Section (E) specifically exempt such Control Equipment. In no case shall air pollution Control Equipment be used to meet any permit exemption threshold as set forth in Section (E) of this Rule.

(8) Nothing in this Rule shall be interpreted to exempt internal combustion engines, general combustion equipment, and/or heat transfer Equipment used in conjunction with or to power exempt Equipment unless the internal combustion engine, general combustion, or heat transfer Equipment itself is also exempt pursuant to the applicable provisions of subsection (E)(2). This provision does not apply to Equipment which is exempt pursuant to (E)(1).

(9) The burden of proof regarding the applicability of this rule to particular equipment shall be upon the Owner/Operator of such equipment. Failure to provide proof of the applicability of this rule to particular Equipment shall be considered a violation of District Rules 201 and/or 203 and may also constitute a violation of District Regulation XII – *Federal Operating Permits*, Regulation XIII – *New Source Review* or Regulation XVI – *Prevention of Significant Deterioration* if applicable.

(C) Definitions

For the purposes of this Rule the definitions contained in District Rules 102 – *Definition of Terms*, 1301 – *New Source Review Definitions*, Section (C) of Rule 1401 – *New Source Review for Toxic Air Contaminants*, Section (B) of Rule 1700 – *Prevention of Significant Deterioration* and 3001 - *Definitions* shall apply unless otherwise defined herein. In case of a conflict the provisions of this Rule shall apply followed by District Rule 1301 then District Rule 1700(B) then District Rule 1401(C) then District Rule 102 unless a definition from another District Rule is specifically referenced.

(1) "Agricultural Facility" – Any equipment or group of equipment potentially subject to District Rules 201 and 203 used in an Agricultural Operation and which are located on contiguous property under common ownership or control.

(2) "Agricultural Operation" – The growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural Operations do not include activities involving the processing or distribution of crops or fowl.

(3) "Confined Animal Facility" – A facility where animals are corralled, penned, or otherwise caused to remain in restricted areas for commercial purposes and primarily fed by a means other than grazing for at least 45 days in any 12-month period.

(D) Threshold Criteria

(1) Threshold Criteria for Exclusion from Federal Operating Permit

(a) To be eligible for exclusion from a FOP pursuant to subsection (B)(2) above, any equipment proposed to be excluded shall not emit Air Pollutants in an amount greater than any of the following:

(i) 2 tons per year of any Regulated Air Pollutant for which a National Ambient Air Quality Standard has been promulgated; or
(ii) A de minimis level for a Hazardous Air Pollutant promulgated pursuant to 42 U.S.C. §7412(g) (Federal Clean Air Act §112(g)); or
(iii) Any significance level defined in 40 CFR 52.21(b)(23)(i); or
(iv) 0.5 ton per year of such Hazardous Air Pollutant, whichever is less.

(2) Threshold Criteria for Agricultural Facilities

(a) To be eligible for exclusion from permitting requirements pursuant to subsection (B)(3)(b) a Confined Animal Facility must have, at all times, less than the following numbers of animals:

(i) 1,000 milk-producing dairy cows;
(ii) 3,500 beef cattle;

(iii) 7,500 calves, heifers or other cattle;
(iv) 650,000 chickens other than laying hens;
(v) 650,000 laying hens;
(vi) 650,000 ducks;
(vii) 100,000 turkeys;
(viii) 3,000 swine;
(ix) 2,500 horses;
(x) 15,000 sheep, lambs, or goats; or
(xi) 30,000 rabbits or other animals.

(b) To be eligible for exclusion from permitting requirements pursuant to subsection (B)(3)(a), an Agricultural Facility must, in aggregate, produce Actual Emissions less than all of the following:

(i) 12.5 tons per year of NOx and VOC; or
(ii) Fifty (50) tons per year of any other Air Pollutant for which a National Ambient Air Quality Standard has been promulgated; or
(iii) 5 tons per year of any Hazardous Air Pollutant; or
(iv) 12.5 tons per year of any combination of Hazardous Air Pollutants; or
(v) A lesser quantity of a Hazardous Air Pollutant as USEPA has established by rule.

For the purposes of determining permitting applicability, Fugitive Emissions, except Fugitive Dust Emissions, are included in determining Aggregate Emissions.

(E) Specific Equipment Not Requiring a Permit

(1) Vehicles and Transportation Equipment

(a) Motor Vehicles defined by sections 415 and/or 670 of the California Vehicle Code (as effective on the date of the last amendment of this rule). This exemption does not apply to any article, machine, Equipment, or other contrivance mounted on such Vehicle that would otherwise require a permit under the provisions of these Rules and Regulations.

(b) Equipment mounted on Vehicles that are used exclusively to transport materials on streets or highways including, but not limited to, cement trucks and Gasoline tanker trucks or if such Equipment does not emit Air Contaminants. This exemption does not apply to asphalt or coal tar pitch roofing kettles.

(c) Locomotives, airplanes, and watercraft used to transport passengers or freight.

(2) Combustion and Heat Transfer Equipment

(a) Internal Combustion Engines and Gas Turbines - Piston type internal combustion engines with a manufacturer's continuous rating of 50 brake horsepower (bhp) or less, or gas turbine engines with a maximum heat input rate of 2,975,000 Btu (749,866 kg cal) per hour at International Standardization Organization (ISO) Standard Day Conditions or less. The ratings of all engines or turbines used in the same process will be aggregated to determine whether this exemption applies.

(b) General Combustion Equipment - Boilers, process heaters or any combustion equipment that has a maximum heat input rate of 2,000,000 Btu (504,000 kg cal) per hour (gross) or less and is equipped to be fired exclusively with, Public Utilities Commission regulated natural gas, methanol, liquefied petroleum gas or any combination thereof that does not include piston type internal combustion engines. The ratings of all combustion Equipment used in the same process will be aggregated to determine whether this exemption applies.

(c) Fuel cells which use phosphoric acid, molten carbonate, proton exchange membrane or solid oxide technologies.

(d) Test cells and test stands used for testing internal combustion engines provided that the internal combustion engines use less than 800 gallons of diesel fuel or 3,500 gallons of gasoline fuel per year, or use other fuels with equivalent or less emissions.

(e) Internal combustion engines used exclusively for training at educational institutions.

(f) Portable internal combustion engines, including any turbines, qualified as military tactical support equipment, registered pursuant to the California Statewide Portable Engine Registration Program pursuant to Health & Safety Code 41750 et seq. and the regulations promulgated thereunder as in effect on the date of the last amendment of this rule such engines have been determined to be stationary pursuant to the provisions of that program or are otherwise required to have a permit pursuant to the provisions of subsection (B)(4) above.

(3) Structures and Equipment - General

(a) Structural changes which cannot change the quality, nature or quantity of Air Contaminant emissions.

(b) Repairs or maintenance not involving structural changes to any Equipment for which a permit has been granted.

(c) Replacement of floating roof tank seals provided that the replacement seal is of a type and model which the APCO has determined in writing is capable of complying with the requirements of District Rule 463.

(d) Equipment utilized exclusively in connection with any structure which is designed for and used exclusively as a dwelling for not more than 4 families, and where such Equipment is used by the owner or occupant of such a dwelling.

(e) Laboratory testing Equipment, and quality control testing Equipment used exclusively for chemical and physical analysis, and non-production bench scale research Equipment. This exemption does not apply to engine test stands or test cells.

(f) Vacuum-producing devices used in laboratory operations or in connection with other Equipment not requiring a written permit.

(g) Vacuum-cleaning systems used exclusively for industrial, commercial or residential housekeeping purposes.

(h) Hoods, stacks or ventilators.

(i) Passive and intermittently operated active venting systems used at and around residential structures to prevent the accumulation of naturally occurring methane and associated gases in enclosed spaces.

(4) Utility Equipment - General

(a) Comfort air conditioning or ventilating systems which are not designed or used to remove Air Contaminants generated by, or released from, specific Equipment.

(b) Refrigeration units. This exemption does not apply to refrigeration units used as or in conjunction with air pollution Control Equipment.

(c) Water-cooling towers and water-cooling ponds in which no chromium compounds are contained. This exemption does not apply to water-cooling towers and water-cooling ponds used for evaporative cooling of water from barometric jets or from barometric condensers.

(d) Equipment used exclusively to generate ozone and associated ozone destruction Equipment for the treatment of cooling tower water or for water treatment processes.

(e) Equipment used exclusively for steam cleaning.

(f) Equipment used exclusively for space heating.

(g) Equipment used exclusively to compress or hold Public Utilities Commission regulated natural gas.

(h) Emergency ventilation systems used exclusively to scrub ammonia from refrigeration systems during process upsets or Equipment breakdowns.

(i) Emergency ventilation systems used exclusively to contain and control emissions resulting from the failure of a compressed gas storage system.

(j) Refrigerant recovery and/or recycling units. This exemption does not apply to refrigerant reclaiming facilities.

(k) Carbon arc lighting Equipment.

(l) Passive carbon adsorbers using no mechanical ventilation with a volume of 55 gallons or less, used exclusively for foul air odor control from sanitary sewer systems such as sanitary sewer lines, manholes and pump stations.

(5) Glass, Ceramic, Metallurgical Processing and Fabrication Equipment

(a) Crucible-type or pot-type furnaces with a capacity of less than 452 in^3 of any molten metal.

(b) Crucible furnaces, pot furnaces or induction furnaces with a capacity of 992 pounds or less each, where no sweating or distilling is conducted and where only the following materials are poured or held in a molten state (provided the materials do not contain alloying elements of arsenic, beryllium, cadmium, chromium and/or lead):

(i) Aluminum or any alloy containing over 50 percent aluminum by weight. ASTM E34-11 – *Standard Test Methods for Chemical Analysis of Aluminum and Aluminum-based Alloys*.
(ii) Magnesium or any alloy containing over 50 percent magnesium by weight.
(iii) Tin or any alloy containing over 50 percent tin by weight.
(iv) Zinc or any alloy containing over 50 percent zinc by weight. ASTM E536-16 – *Standard Test Methods for Chemical Analysis of Zinc and Zinc Alloys*.
(v) Copper. ASTM E34-11 – *Standard Test Methods for Chemical Analysis of Aluminum and Aluminum-based Alloys*.
(vi) Precious metals (gold, silver, palladium, and platinum). ATSM E1335-08 – Standard Test Methods for Determination of Gold in Bullion by Fire Assay Cupellation Analysis.

Percent by weight of such metals shall be determined by the referenced test method, or an equivalent method approved by CARB, USEPA and the APCO.

(c) Molds used for the casting of metals.

(d) Inspection Equipment used exclusively for metal, plastic, glass, or ceramic products and Control Equipment exclusively venting such Equipment.

(e) Ovens used exclusively for curing potting materials or castings made with epoxy resins.

(f) Hand-held or automatic brazing and soldering Equipment,and Control Equipment exclusively venting such Equipment, provided that the Equipment uses 1 quart per day or less of material containing Volatile Organic Compounds (VOC). This exemption does not apply to hot oil, hot air, or vapor phase solder leveling Equipment and related Control Equipment.

(g) Brazing ovens where no materials containing VOC (except flux) are present.

(h) Welding Equipment, oxygen gaseous fuel-cutting Equipment and control Equipment exclusively venting such Equipment. This exemption does not apply to facilities primarily engaged in the activities listed in 40 CFR 63.11514 using plasma arc-cutting Equipment or laser cutting Equipment to cut stainless steel or alloys containing cadmium, chromium, lead, manganese or nickel or laser cutters that are rated more than 400 W.

(i) Sintering Equipment used exclusively for the sintering of metal (excluding lead) or glass where no coke or limestone is used, and control equipment exclusively venting such Equipment.

(j) Mold forming Equipment for foundry sand to which no heat is applied, and where no VOC materials are used in the process, and Control Equipment exclusively venting such Equipment.

(k) Equipment used exclusively for forging, rolling, or drawing of metals provided that any lubricants used have 50 grams per liter VOC or less, or a VOC composite partial pressure of 0.4 psi or less at 68°F, or Equipment used for heating metals prior to forging, pressing, rolling or drawing.

(l) Heat treatment Equipment used exclusively for heat treating glass or metals (provided no VOC materials are present), or Equipment used exclusively for case hardening, carburizing, cyaniding, nitriding, carbo-nitriding, siliconizing or diffusion treating of metal objects.

(m) Ladles used in pouring molten metals.

(n) Tumblers used for the cleaning or de-burring of solid materials.

(o) Die casting machines. This exemption does not apply to die casting machines used for copper base alloys, those with an integral furnace having a capacity of more than 992 pounds.

(p) Furnaces or ovens used for the curing or drying of porcelain enameling, or vitreous enameling.

(q) Wax burnout kilns where the total internal volume is less than 7 ft^3 or kilns used exclusively for firing ceramic ware.

(r) Shell-core and shell-mold manufacturing machines.

(s) Furnaces used exclusively for melting titanium materials in a closed evacuated chamber where no sweating or distilling is conducted.

(t) Vacuum metalizing chambers which are electrically heated or heated with equipment that is exempt pursuant to subsection (E)(2)(b). This exemption includes Control Equipment exclusively venting such Equipment so long as the Control Equipment is equipped with a mist eliminator or the vacuum pump used with Control Equipment demonstrates operation with no visible emissions from the vacuum exhaust.

(6) Abrasive Blasting Equipment

(a) Blast cleaning cabinets in which a suspension of abrasive in water is used and Control Equipment exclusively venting such Equipment.

(b) Glove-box type abrasive blast cabinet, vented to a dust-filter where the total internal volume of the blast section is 53 ft^3 or less, and any dust filter exclusively venting such Equipment.

(c) Enclosed Equipment used exclusively for shot blast removal of flashing from rubber and plastics at sub-zero temperatures and Control Equipment exclusively venting such Equipment.

(d) Shot peening operations, provided no surface material is removed, and Control Equipment exclusively venting such Equipment.

(e) Portable sand/water blaster equipment and associated piston type internal combustion engine provided the operation of such Equipment is performed in conformance with the manufacturer's specifications.

(7) Machining Equipment

(a) Equipment used exclusively for buffing, polishing, carving, mechanical cutting, drilling, machining, pressing, routing, sanding, surface grinding or turning provided that any lubricants used have 50 grams per liter VOC or less, or a VOC composite partial pressure of 0.4 psi or less at 68°F, and Control Equipment exclusively venting such Equipment. This exemption does not apply to automatic tire buffers, semi-automatic tire buffers, and asphalt pavement grinders.

(b) Equipment used exclusively for shredding of wood, or the extruding, handling, or storage of wood chips, sawdust, or wood shavings and control equipment exclusively venting such equipment.

(c) Equipment used exclusively to mill or grind Coatings or molding compounds where all materials charged are in the paste form.

(8) Printing and Reproduction Equipment

(a) Printing and related Coating and/or laminating Equipment used in Graphic Arts Operations, and associated dryers (provided said dryers are also exempt pursuant to subsection (E)(2)(b)) not emitting more than 3 pounds of VOC emissions per day, or not using more than 6 gallons per day of ultraviolet, electron beam, or plastisols type, including cleanup solvent, or 2 gallons per day of any other graphic arts materials. Graphic arts materials are any Inks, Coatings, Adhesives, fountain solutions (excluding water), thinners (excluding water), retarders, or cleaning solutions (excluding water), used in printing or related Coating or Laminating processes.

(b) Photographic process Equipment by which an image is reproduced upon material sensitized by radiant energy and Control Equipment exclusively venting such Equipment.

(c) Lithographic printing Equipment which uses laser printing.

(d) Printing Equipment used exclusively for training and non-production at educational institutions.

(e) Flexographic plate-making and associated processing Equipment.

(f) Corona treating Equipment and associated air pollution control equipment used for surface treatment in printing, laminating and coating operations.

(g) Hand application of materials used in printing operations including but not limited to the use of squeegees, screens, stamps, stencils and any hand tools.

(9) Food Processing and Preparation Equipment

(a) Smokehouses for preparing food in which the maximum horizontal inside cross-sectional area does not exceed 21.5 square feet.

(b) Smokehouses exclusively using liquid smoke, and which are completely enclosed with no vents to any Control Equipment or to the atmosphere.

(c) Confection cookers where products are edible and intended for human consumption.

(d) Grinding, blending or packaging Equipment used exclusively for tea, cocoa, roasted coffee, flavor, fragrance extraction, dried flowers, or spices, and Control Equipment exclusively venting such Equipment.

(e) Equipment used in eating establishments for the purpose of preparing food for human consumption. This exemption does not apply to commercial direct-fired chain-driven char broilers (regardless of the Btu rating). Direct-fired char broilers include, but are not limited to, gas, electric, wood, or charcoal-fired.

(f) Equipment used to convey or process materials in bakeries or used to produce noodles, macaroni, pasta, food mixes or drink mixes where products are edible and intended for human consumption and Control Equipment exclusively venting such Equipment.

(g) Cooking kettles where all of the product in the kettle is edible and intended for human consumption. This exemption does not include deep frying Equipment used in facilities other than eating establishments.

(h) Coffee roasting Equipment with a maximum capacity of 10 pounds or less per batch.

(10) Plastics, Composite and Rubber Processing Equipment

(a) Presses or molds used for curing, post curing or forming rubber products, composite products and plastic products where no VOC or chlorinated blowing agent is present, and Control Equipment exclusively venting these presses or molds.

(b) Presses or molds with a ram diameter of less than or equal to 26 inches used for curing or forming rubber products and composite rubber products excluding those operating above 400°F.

(c) Ovens used exclusively for the forming of plastics or composite products, which are concurrently being vacuum held to a mold, and where no foam forming or expanding process is involved.

(d) Equipment used exclusively for softening or annealing plastics.

(e) Extrusion Equipment used exclusively for extruding rubber products or plastics where no organic plasticizer is present, or for pelletizing polystyrene foam scrap. This exemption does not apply to Equipment used to extrude or to pelletize acrylics, polyvinyl chloride, polystyrene, and their copolymers.

(f) Injection or blow molding Equipment for rubber or plastics where no blowing agent other than compressed air, water or carbon dioxide is used, and Control Equipment exclusively venting such Equipment.

(g) Mixers, roll mills and calendars for rubber or plastics where no material in powder form is added and no organic solvents, diluents or thinners are used.

(h) Ovens used exclusively for the curing of vinyl plastisols by the closed-mold curing process.

(i) Equipment used exclusively for conveying and storing plastic materials, provided they are not in powder form.

(j) Hot wire cutting of expanded polystyrene foam and woven polyester film.

(k) Photocurable stereolithography Equipment.

(l) Laser sintering Equipment used exclusively for the sintering of nylon or plastic powders and Control Equipment exclusively venting such Equipment.

(m) Roller to roller coating systems that create three-dimensional images provided:

(i) The VOC emissions from such Equipment (including cleanup) are three (3) pounds per day or less or not to exceed 66 pounds per calendar month; or

(ii) The coatings contain 25 grams or less of VOC per liter of material provided that the coating used on such Equipment is 12 gallons per day or less, not to exceed 264 gallons per calendar month; or

(iii) The coatings contain 50 grams or less of VOC per liter of material, and exclusively using cleanup solvents containing 25 grams or less of VOC per liter of material, and the total quantity of VOC emissions do not exceed 1 ton per calendar year.

(11) Mixing and Blending Equipment

(a) Batch mixers which have a capacity of 55 gallons or 7.35 ft^3 (0.21 m^3) or less.

(b) Equipment used exclusively for mixing and blending of materials where no VOC containing solvents are used and no materials in powder form are added.

(c) Equipment used exclusively for mixing and blending of materials to make water emulsions of asphalt, grease, oils or waxes where no materials in powder or fiber form are added.

(d) Equipment used to blend, grind, mix, or thin liquids to which powders may be added, with a capacity of 251 gallons or less, where no supplemental heat is added and no ingredient charged (excluding water) exceeds 135°F.

(e) Concrete mixers, with a rated working capacity of 1 yd^3 or less.

(12) Miscellaneous Process Equipment

(a) Equipment, including dryers, used exclusively for dyeing, stripping, or bleaching of textiles where no organic solvents, diluents or thinners are used.

(b) Equipment used exclusively for bonding lining to brake shoes, where no organic solvents are used and Control Equipment exclusively venting such Equipment.

(c) Equipment used exclusively to liquefy or separate oxygen, nitrogen, or the rare gases from air.

(d) Equipment used exclusively for surface preparation, cleaning, passivation, deoxidation, and/or stripping which uses water-based cleaners containing 2 percent or less of VOC by volume (20 grams per liter or less), or containing formic acid, acetic acid, phosphoric acid, sulfuric acid, hydrochloric acid (12 percent or less by weight), alkaline oxidizing agents, hydrogen peroxide, salt solutions, sodium hydroxide and/or water. This exemption does apply to anodizing, hard anodizing, chemical milling, circuit board etching using ammonia-based etchant, or the stripping of chromium, except sulfuric acid anodizing with a bath concentration of 20 percent or less by weight of sulfuric acid and using 10,000 amp-hours per day or less of electricity.

(e) Equipment used exclusively for the plating, stripping, or anodizing of metals as described below:

(i) Electrolytic plating of exclusively brass, bronze, copper, iron, tin, lead, zinc, and precious metals, providing no chromic, hydrochloric or sulfuric acid is used;
(ii) Electroless nickel plating, provided that the process is not air-sparged and no electrolytic reverse plating occurs;
(iii) The electrolytic stripping of brass, bronze, copper, iron, tin, zinc, and precious metals, provided no chromic, hydrochloric, nitric or sulfuric acid is used;
(iv) The non-electrolytic stripping of metals, providing the stripping solution is not sparged and does not contain nitric acid;
(v) Anodizing using exclusively sulfuric acid and/or boric acid with a total bath concentration of 20 percent acids or less by weight and using 10,000 amp-hours per day or less of electricity;
(vi) Anodizing using exclusively phosphoric acid with a bath concentration of 15 percent or less phosphoric acid by weight and using 20,000 amp-hours per day or less of electricity; or
(vii) Water and associated rinse tanks and waste storage tanks used exclusively to store the solutions drained from equipment used for the plating, stripping or anodizing of metals.

(f) Equipment used exclusively for the packaging of lubricants or greases.

(g) Equipment used exclusively for tableting vitamins, herbs, dietary supplements, or pharmaceuticals, packaging vitamins, herbs, dietary supplements, or pharmaceuticals and cosmetics, or coating vitamins, herbs, dietary supplements or pharmaceutical tablets, provided no organic solvents are used, and Control Equipment used exclusively to vent such Equipment.

(h) Equipment used exclusively for coating objects with oils, melted waxes or greases which contain no organic solvents, diluents or thinners.

(i) Equipment used exclusively for coating objects by dipping in waxes or natural and synthetic resins which contain no organic solvents, diluents or thinners.

(j) Unheated, non-conveyorized, cleaning or coating equipment:

(i) With an open surface area of 10.8 square feet or less and an internal volume of 92.5 gallons or less, having an organic solvent loss of 3 gallons per day or less; or

(ii) Using only organic solvents with an initial boiling point of 302°F (150° C) or greater as determined by ASTM D1078-11 *Standard Test Method for Distillation Range of volatile Organic Liquids*; or

(iii) Using materials with a VOC content of 2 percent (20 grams per liter) or less by volume.

This exemption does not apply to Equipment with a capacity of more than 2 gallons (7.57 liters), which was designed as a solvent cleaning and drying machine, using solvents that are greater than 5 percent by weight of perchloroethylene, methylene chloride, carbon tetrachloride, chloroform, 1,1,1-trichloroethane, trichloroethylene, or any combination thereof.

(k) Batch ovens with 53 ft^3 or less internal volume where no melting occurs. This exemption does not apply to ovens used to cure vinyl plastisols or debond brake shoes.

(l) Batch ovens used exclusively to cure 30 pounds per day or less of powder coatings.

(m) Equipment used exclusively for the washing and subsequent drying of materials and Control Equipment exclusively venting such Equipment, provided that no VOC are.

(n) Equipment used exclusively for manufacturing soap or detergent bars, including mixing tanks, roll mills, plodders, cutters, wrappers, where no heating, drying or chemical reactions occur.

(o) Spray coating equipment operated within permitted Control Equipment.

(p) Coating or adhesive application or laminating Equipment such as air, airless, air-assisted airless, high volume low pressure (HVLP), and electrostatic spray equipment, and roller coaters, dip coaters, vacuum coaters and flow coaters and spray machines provided that:

(i) The VOC emissions from such Equipment (including clean-up) is 3 pounds per day or less; or
(ii) The total quantity of UV or electron beam (non-solvent based and non-waterborne) coatings, adhesives and associated VOC containing solvents (including cleanup) used in such Equipment is 6 gallons per day or less.; or
(iii) The total quantity of solvent type coating and/or adhesive used is 1 gallon per day or less, including cleanup solvent; or
(iv) The total quantity of water reducible or water based type coating and adhesives and associated VOC containing solvents (including clean-up) is 3 gallons per day or less; or
(v) The total quantity of polyester resin or gel coat type material and associated VOC containing solvents (including clean-up) is 1 gallon per day or less.

If a combination of the Coatings, Adhesives and polyester resin and gel coat type materials identified in (ii), (iii), (iv) and/or (v) are used in any Equipment, this exemption is only applicable if the operations meet the criteria specified in (i) or (vi), or the total usage of Coatings, Adhesives, polyester resin and gel coat type materials and associated VOC containing Solvents (including cleanup) meets the most stringent applicable limit in (ii), (iii), (iv) or (v). For exemptions based on usage, Solvent-based UV and waterborne UV materials are subject to the usage limits in (iii) and (iv), respectively.

(q) Spray coating and associated drying equipment and Control Equipment used exclusively for educational purposes in educational institutions.

(r) Portable coating equipment and pavement stripers used exclusively for the application of architectural coatings according to District Rule 1113.

(s) Inert gas generators.

(t) Hammermills used exclusively to process aluminum and/or tin cans, and Control Equipment exclusively venting such Equipment. {

(u) Heated degreasers with a liquid/vapor interface surface area of 1 square foot or less, or using aqueous cleaning materials with a VOC content of 2 percent (20 grams per liter) or less by volume provided such degreasers have an organic solvent loss of 3 gallons per day or less. This exemption does not apply to heated degreasers with a capacity of more than 2 gallons using solvents that are greater than five (5) percent by weight of perchloroethylene, methylene chloride, carbon tetrachloride, chloroform, 1,1,1-trichloroethane, trichloroethylene, or any combination thereof.

(v) Paper shredding and associated conveying systems, baling Equipment.

(w) Chemical vapor type sterilization Equipment where no Ethylene Oxide is used, and with a chamber volume of 2 ft^3 or less used by healthcare facilities.

(x) Hand application of resins, adhesives, dyes, coatings and solvents using devices such as brushes, daubers, rollers trowels, rags, swabs and squeeze bottles.

(y) Drying Equipment such as flash-off ovens, drying ovens, or curing ovens associated with coating or adhesive application or laminating Equipment provided the drying equipment is exempt pursuant to paragraph (E)(2)(b), and provided that:

(i) The total quantity of VOC emissions from all coating and/or adhesive application, and laminating Equipment that the drying equipment serves is 3 pounds per day or less or not to exceed 66 pounds per calendar month; or

(ii) The total quantity of UV or electron beam (non-solvent based and non-waterborne) coatings and adhesives, and associated VOC containing solvents (including clean-up) used in all coating and/or adhesive application, and laminating Equipment that the drying Equipment serves is 6 gallons per day or less or not to exceed 132 gallons per calendar month; or

(iii) The total quantity of solvent based coatings and adhesives and associated VOC containing solvents (including clean-up) used in all coating and/or adhesive application, and laminating Equipment that the drying equipment serves is 1 gallon per day or less or not to exceed 22 gallons per calendar month; or

(iv) The total quantity of water reducible or waterborne coating and adhesives and associated VOC containing solvents (including clean-up) used in all coating and/or adhesive application, and laminating equipment that the drying Equipment serves is 3 gallons per day or less or not to exceed 66 gallons per calendar month; or

(v) The total quantity of polyester resin and gel coat type materials and associated VOC containing solvents (including clean-up) used in all coating, adhesive application, and laminating Equipment that the drying equipment serves is 1 gallon per day or less or not to exceed 22 gallons per calendar month; or

(vi) All coatings, adhesives, polyester resin and gel coat type materials and associated VOC containing solvents (excluding cleanup solvents) contain 50 grams or less of VOC per liter of material and all cleanup solvents contain 25 grams or less of VOC per liter of material, and the total quantity of VOC emissions do not exceed 1 ton per calendar year.

If combination of the coatings, adhesives and polyester resin and gel coat type materials identified in (ii), (iii), (iv) and/or (v) are used in any equipment, this exemption is only applicable if the operations meet the criteria specified in (i) or (vi), or the total usage of coatings, adhesives, polyester resin and gel coat type materials and associated VOC containing solvents (including cleanup) meets the most stringent applicable limit in (ii), (iii), (iv) or (v). For exemptions based on usage, solvent based UV and waterborne UV materials are subject to the usage limits in (iii) and (iv), respectively.

(z) Hot melt adhesive Equipment.

(aa) Pyrotechnical Equipment, especial effects or fireworks paraphernalia Equipment used for entertainment purposes.

(bb) Ammunition or explosive testing Equipment.

(cc) Fire extinguishing Equipment using halons.

(dd) Industrial wastewater treatment Equipment which only does pH adjustment, precipitation, gravity separation and/or filtration of the wastewater, including equipment used for reducing hexavalent chromium and/or destroying cyanide compounds. This exemption does not apply to treatment processes where VOC and/or toxic materials are emitted, or where the inlet concentration of cyanide salts through the wastewater treatment process prior to pH adjustment exceeds 200 mg per liter.

(ee) Equipment used exclusively for the packaging of sodium hypochlorite-based household cleaning or pool products.

(ff) Foam packaging Equipment using 20 gallons per day or less of liquid foam material.

(gg) Foam application Equipment using 2 component polyurethane foam where no VOC containing blowing agent is used, excluding chlorofluorocarbons or methylene chloride, and Control Equipment exclusively venting this Equipment.

(hh) Industrial wastewater evaporators treating water generated from on-site processes only, where no VOC and/or toxic materials are emitted.

(ii) High efficiency particulate air (HEPA) filtration Equipment and negative air machines used in asbestos demolition and/or renovation activities regulated pursuant to District Rule 1403 – *Asbestos Emissions from Demolition/Renovation Activities*.

(jj) Closed loop solvent recovery systems used for the recovery of waste solvent generated on-site using refrigerated or liquid cooled condenser, or air-cooled (where the solvent reservoir capacity is less than 10 gallons) condenser.

(kk) Toner refilling and Control Equipment used exclusively to vent such Equipment.

(ll) Evaporator used at dry cleaning facilities to dispose of separator wastewater and Control Equipment exclusively venting the Equipment.

(mm) Cleaning Equipment using materials with a VOC content of 25 grams of VOC per liter of material or less, and associated dryers exclusively serving these cleaners.

(nn) Gravity-type oil water separators with a total air/liquid interfacial area of less than 45 square feet and the oil specific gravity of 0.8251 or higher (40.0 API or lower).

(13) Storage and Transfer Equipment

(a) Equipment used exclusively for the storage and transfer of fresh, commercial or purer grades of:

(i) Sulfuric acid or phosphoric acid with an acid strength of 99 percent or less (weight by weight) as determined by test method ASTM E223-16 – *Standard Test Methods for Analysis of Sulfuric Acid* or an equivalent method approved by CARB, USEPA and the APCO.

(ii) Nitric acid with an acid strength of 70 percent or less (weight by weight) as determined by test method ASTM D891-18 – *Standard Test Methods for Specific Gravity, Apparent, of Liquid Industrial Chemicals* or an equivalent method approved by CARB, USEPA and the APCO.

(iii) Water based solutions of salts or sodium hydroxide.

(b) Equipment used exclusively for the storage and/or transfer of liquefied gases. This exemption does not apply to LPG storage greater than 19,815 gallons or hydrogen fluoride storage greater than 1,057 gallons.

(c) Equipment used exclusively for the transfer of less than 20,000 gallons per day of unheated organic materials, with an initial boiling point of 302°F or greater, or with an organic vapor pressure of 0.1 psia or less at 70°F.

(d) Equipment used exclusively for the storage of unheated organic materials with an initial boiling point of 302°F (150° C) or greater, or with an organic vapor pressure of 0.1 psi absolute or less at 70°F. This exemption does not apply to liquid fuel storage greater than 40,000 gallons.

(e) Equipment used exclusively for transferring organic liquids, materials containing organic liquids, or compressed gases into containers of less than 60 gallons capacity. This exemption does not apply to Equipment used for transferring more than 1,057 gallons of materials per day with a vapor pressure greater than 0.5 psia t operating conditions.

(f) Equipment used exclusively for the storage and transfer of liquid soaps, liquid detergents, vegetable oils, fatty acids, fatty esters, fatty alcohols, waxes and wax emulsions.

(g) Equipment used exclusively for the storage and transfer of refined lubricating oils.

(h) Equipment used exclusively for the storage and transfer of crankcase drainage oil.

(i) Equipment used exclusively for organic liquid storage or transfer to and from such storage, of less than 251 gallons (950.13 liters) capacity. This exemption does not apply to asphalt storage.

(j) Equipment used exclusively for the storage and transfer of "top white" (i.e., Fancy) or cosmetic grade tallow or edible animal fats intended for human consumption and of sufficient quality to be certifiable for United States markets.

(k) Equipment used exclusively for the storage, holding, melting and transfer of asphalt or coal tar pitch with a capacity of less than 159 gallons.

(l) Pumps used exclusively for pipeline transport of liquids.

(m) Equipment used exclusively for the unheated underground storage of 6,077 gallons or less, and equipment used exclusively for the transfer to or from such storage of organic liquids with a vapor pressure of 1.5 psia or less at actual storage conditions as determined by ASTM D2879-10 – *Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope* or an equivalent method approved by CARB, USEPA and the APCO, and Equipment used exclusively for the transfer from such storage.

(n) Equipment used exclusively for the storage and/or transfer of an asphalt-water emulsion heated to 150°F or less.

(o) Liquid fuel storage tanks piped exclusively to emergency internal combustion engine-generators, turbines or pump drivers.

(p) Bins used for temporary storage and transport of material with a capacity of 550 gallons or less.

(q) Equipment used for material storage where no venting occurs during filling or normal use.

(r) Equipment used exclusively for storage, blending, and/or transfer of water emulsion intermediates and products, including latex, with a VOC content of 5 percent by volume or less or a VOC composite partial pressure of 0.1 psi absolute or less at 68°F.

(s) Equipment used exclusively for storage and/or transfer of sodium hypochlorite solution.

(t) Equipment used exclusively for the storage of organic materials which are stored at a temperature at least 234°F below its initial boiling point, or have an organic vapor pressure of 0.1 psi absolute or less at the actual storage temperature. To qualify for this exemption, the operator shall, if the stored material is heated, install and maintain a device to measure the temperature of the stored organic material. This exemption does not apply to liquid fuel storage greater than 40,000 gallons, asphalt storage, or coal tar pitch storage.

(u) Stationary equipment used exclusively to store and/or transfer organic compounds that do not contain VOCs.

(v) Unheated equipment including associated control equipment used exclusively for the storage and transfer of fluorosilicic acid at a concentration of 30 percent or less by weight and a vapor pressure of 0.5 psi or less at 77°F. The hydrofluoric acid concentration within the fluorosilicic acid solution shall not exceed one percent (1%) by weight.

(14) Agricultural Sources

(a) Orchard wind machines powered by an internal combustion engine with a manufacturer's rating greater than 50 bhp, provided the engine is operated no more than 30 hours per calendar year.

(b) Orchard heaters approved by the California Air Resources Board to produce no more than one (1) gram per minute of unconsumed solid carbonaceous material.

(F) Recordkeeping

(1) Any person claiming exemptions under the provisions of this rule shall:

(a) Provide, upon District request, adequate records to verify and maintain any exemption. Adequate records can include, but are not limited to, any of the following:

(i) Materials Safety Data Sheets (MSDS) or other materials specifications as issued by the manufacturer of such materials containing the data necessary to demonstrate compliance;
(ii) Purchase records;
(iii) On site inventory records;
(iv) Consistently maintained and retained logs of Equipment run time, hours of operation; gallons of fuel used; Control Efficiency of the Control Equipment; and/or amount of materials consumed as applicable for the particular exemption;

(v) Manufacturer's data plate or similar information indicating size, capacity, Bhp, heat input value and/or other relevant information useful to determine compliance with an exemption.

(vi) Control Efficiency of any attached air pollution Control Equipment if such Control Equipment is also exempt pursuant to the particular exemption.

(vii) Records of Visual Emissions Evaluations performed pursuant to USEPA Method 9 – *Visual determination of the Opacity of Emissions from Stationary Sources*; and/or USEPA Method 22 - *Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares* as applicable.

(viii) Records which are deemed adequate pursuant to the provisions of District Rule 109.

(b) Any Person claiming an exemption based upon an emissions limitation, including but not limited to those exemptions including but not limited to those found in subsections (E)(8)(a), (E)(10)(i), (E)(10)(iii), (E)(12)(p)(i), (E)(12)(y)(i) and (E)(12)(y)(vi) shall provide the following to verify and maintain such emissions limitation:

(i) Materials Safety Data Sheets (MSDS) or other materials specifications as issued by the manufacturer of such materials containing the data necessary to demonstrate compliance; and

(ii) Consistently maintained use logs indicating the amount of materials used or consumed on a daily, monthly and/or annual basis as applicable. Purchase and inventory records can be used in lieu of use logs so long as such records are maintained and updated on a periodic basis sufficient to show continuous compliance with the specific emissions limitation; and

(iii) Any applicable records which are deemed adequate pursuant to the provisions of District Rule 109.

(2) All records shall be maintained and retained on-site for at least 5 years.

(3) Any test method used to verify the percentages, concentrations, vapor pressures, etc., as required by this Rule or by any other applicable District Rule or Regulation shall be CARB, USEPA, and District approved.

(4) Failure to provide records shall be considered a violation of District Rule 201 – *Permit to Construct* and/or Rule 203 – *Permit to Operate* and may also constitute a violation of District Regulation XIII – *New Source Review*, Rule 1401 – *New Source Review for Toxic Air Contaminants*, Regulation XVII – *Prevention of Significant Deterioration*, and/or Regulation XXX – *Title V Permits* if applicable.

(G) Compliance Date

(1) The Owner/Operator of equipment previously not requiring a permit pursuant to the provisions of this shall comply with the provisions of District Rule 201 – *Permit to Construct* and/or Rule 203 – *Permit to Operate* within 1 year from the date the rule is amended to remove the exemption unless compliance is required before that time by written notification from the APCO.

See SIP Table at www.avaqmd.ca.gov

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(**Adopted:** 11/4/77; **Amended:** 8/7/81; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05)

RULE 220
Exemption-Net Increase In Emissions

(A) Upon petition of the owner or operator of a source, and after notice and hearing in accordance with the procedures provided in Health and Safety Code §§40826 and 40807, the Air Pollution Control Officer (APCO) may exempt a source from any prohibitory rule of Regulations IV and XI if he makes a finding that installation of controls and/or process changes required to achieve compliance with the subject prohibitory rule will result in a net adverse impact on air quality.

(B) In granting an exemption hereunder, the APCO shall require the person seeking the exemption to install, as a condition to its permit to operate, alternative controls and/or process changes which will result in the greatest practical net emission reduction.

(C) In making the finding set forth above, the APCO shall consider secondary emissions including but not limited to, incremental electrical power generation emissions.

(D) Provisions of this rule shall not apply to those sources with primary emissions of one pound per hour or more of the air contaminant which the rule from which the exemption is sought is designed to control.

(E) The APCO may revoke the exemption if he determines after a hearing that conditions have changed such that there is no longer a net air quality benefit.

(F) The hearing shall be conducted by the APCO. The APCO shall report each determination to grant or deny an exemption hereunder to the District Board at its next regular meeting following the grant or denial of such exemption. Any person who has been denied an exemption hereunder or whose exemption has been revoked, may petition the District Hearing Board to rehear the matter. Such petition shall contain a verified statement of facts setting forth the basis for petitioner's claim that the APCO improperly denied or revoked the exemption. The District Hearing Board, after considering the petition, may grant or deny a hearing. If it denies a hearing, it shall state the basis for its denial.

[SIP: Approved 7/6/82, 47 FR 29231, 40 CFR 52.220(c)(103)(xviii)(A)]

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(**Adopted** 1/4/85; **Readopted by Statute:** 07/01/97; **Readopted by Statute:** 01/01/02; **Amended:** 5/17/05)

RULE 221
Plans

(A) A person shall not conduct any operation for which these rules and regulations require a plan without first obtaining approval of such plan by the Air Pollution Control Officer (APCO) within the time interval expressed in said rules and regulations.

(B) The operation shall not be conducted contrary to any conditions specified in the approved plan.

(C) All plans shall be submitted in a form and manner as specified by the APCO.

(D) A violation of the plan is a violation of the rule.

(E) A plan shall have all the rights delineated in Regulation II for permits including the right of appeal.

[SIP: Approved 4/17/87, 52 FR 12522, 40 CFR 52.220(c)(165)(i)(B)(1)]

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(**Adopted:** 03/17/98; **Amended:** 07/21/98
Amended: 5/17/05)

RULE 226
Limitations on Potential to Emit

(A) General

(1) Purpose

(a) The purpose of this Rule is to create federally enforceable limitations on potential to emit for all facilities, as defined in District Rule 3001(M), which meet the applicability criteria set forth below and otherwise comply with the provisions of this Rule.

(2) Applicability

(a) This Rule shall apply to any Facility, as defined in District Rule 3001(M), which would, if it did not comply with the limitations set forth in this Rule, have the potential to emit air contaminants equal to or in excess of the threshold for a Major Facility and which meets one of the following conditions:

(i) In every twelve (12) month period, the actual emissions of the Facility are less than or equal to the emissions limitations set forth in section (C); or

(ii) In every twelve (12) month period, at least ninety percent (90%) of the emissions from the Facility are associated with an operation limited by any one of the alternate operational limits as set forth in section (E).

(b) This Rule shall not apply to any of the following:

(i) Any Facility whose actual emissions, throughput, or operation, at any time after the effective date of this Rule is greater than the emissions limitations set forth in section (C) or alternative operational limits set forth in section (E) and which meets the following conditions:

a. The owner or operator of the Facility has notified the District at least thirty (30) days prior to any exceedance that an application for a Federal Operating Permit (FOP) pursuant to Regulation XXX will be submitted, or a federally enforceable voluntary emissions limitation pursuant to District Rule 225 will be obtained; and

b. A complete application for a FOP is received by the District, or the voluntary emissions limitation is approved and included on the permit for the Facility, within twelve (12) months of the date of the notification.

(ii) Any Facility that has applied for a FOP in conformance with Regulation XXX in a timely manner and is awaiting final action by the District and/or USEPA.

(iii) Any Facility required to obtain a FOP for any reason other than it qualifies as a Major Facility.

(iv) Any Facility with a valid FOP.

(v) Any Facility with a valid District permit which contains federally enforceable voluntary emissions limitations issued pursuant to District Rule 225 which limit the potential to emit of the Facility to levels below the applicable threshold for a Major Facility.

(c) A Facility described in subsection (A)(2)(b)(i) above, may be immediately subject to all applicable federal requirements.

(d) Notwithstanding subsections (A)(2)(b)(ii) and (A)(2)(b)(iv) above, nothing in this section shall prevent any Facility, which has had a FOP, from qualifying to comply with this Rule in the future in lieu of maintaining an application for a FOP or upon recession of a FOP if the owner or operator demonstrates that the Facility is in compliance with the emissions limitations set forth in section (C) or alternative operational limits set forth in section (E).

(e) For the purposes of determining applicability of this Rule, the owner or operator of a Facility may take into account the operational limitations of air pollution control equipment when determining potential to emit as long as such air pollution control equipment is required by Federal, State or District law, Rule, permit or Regulation.

(i) The owner or operator of the Facility shall maintain and operate such air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

(f) The provisions of subsection (A)(2)(e) above shall not apply after January 1, 1999 unless:

(i) The operational limitation requiring the air pollution control device is federally enforceable; or

(ii) The Governing Board of the District specifically extends this provision and such extension is submitted to USEPA.

(g) Any extension of the provisions of subsection (A)(2)(e) pursuant to subsection (A)(2)(f) above shall remain valid unless and until USEPA disapproves such extension.

(B) Definitions

For the purposes of this Rule the definitions contained in District Rule 3001 shall apply unless a term is otherwise defined herein.

(1) "Actual Emissions" - The emissions of a regulated air pollutant from a Facility for every twelve (12) month period. Actual Emissions shall be determined as follows:

(a) By the use of valid continuous emissions monitoring data or source tests data.

(b) In the absence of data as specified in subsection (B)(1)(a) above, by calculation of emissions from any one or more of the following: throughputs of process material; throughputs of material stored; usage of materials; data provided in manufacturer's product specifications; volatile organic compound content reports or laboratory analyses for the material; any other information required by this Rule or by any other Federal, State or District Regulations; and/or information requested in writing by the District.

(c) All calculations of actual emissions shall use USEPA, CARB or District approved methods, including but not limited to emissions factors and other assumptions.

(2) "Air Pollutant" - Any air pollution agent or combination of such agents, including any physical, chemical, biological, or radioactive (including source material, special nuclear material and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air

(3) "Alternative Operational Limit" - A limit on a measurable parameter such as hours of operation, throughput of materials, use of materials, or quantity of product as specified in section (E).

(4) "California Air Resources Board" (CARB) - The Air Resources Board of the State of California as established pursuant to the provisions of Part 2 of Division 26 (commencing with section 39500) of the California Health and Safety Code.

(5) "Contiguous Property" - Two or more parcels of land with a common boundary or separated solely by a public or private roadway, or other public or private right-of-way.

(6) "District" - The Antelope Valley Air Quality Management District the geographical area of which is described in District Rule 103.

(7) "Emission Unit" - Any article, machine, equipment, operation, contrivance or related groupings of such that may produce and/or emit any regulated air pollutant or hazardous air pollutant.

(8) "Facility" - Any permit unit, group of permit units, non-permitted equipment, or any combination thereof which emits or may emit an Air Pollutant; and belongs to a single major industrial group in the Standard Industrial Classification Manual; and is located on a single parcel of land or on contiguous property within the District; and which is owned or operated by the same person or by persons under common control.

(9) "Federal Clean Air Act" - The Federal Clean Air Act (codified at 42 U.S.C. ''7401-7671q) as well as any amendments thereto and any implementing regulations promulgated thereunder.

(10) "Federal Operating Permit" (FOP) - An operating permit issued pursuant to District Regulation XXX after the effective date of such regulation as set forth in District Rule 3000(D).

(11) "Federally Enforceable" - Any requirement, condition or other term which is fully enforceable by USEPA pursuant to the provisions of 42 U.S.C. '7413 (Federal Clean Air Act '113) or the public pursuant to the provisions of 42 U.S.C. '7604 (Federal Clean Air Act '304).

(12) "Hazardous Air Pollutant" (HAP) - Any air pollutant listed pursuant to 42 U.S.C. '7412(b) (Federal Clean Air Act '112) or in regulations promulgated thereunder.

(13) "Major Facility" - Any Facility which emits or has the potential to emit the following amounts and types of Air Pollutants:

(a) 100 tons per year or more of any Air Pollutants other than those indicated in subparts (b) and (c) below.

(b) 25 tons per year or more of the following Air Pollutants:

(i) NO_x (nitrogen oxides)
(ii) VOC (volatile organic compounds)

(c) 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs or such lesser quantity as the USEPA may establish by Rule.

(14) "Potential to Emit" - The maximum capacity of a Facility to emit any air pollutant under its physical and operational design.

(a) Any physical or operational limitation on the capacity of the unit to emit a pollutant including air pollution control equipment; restrictions on hours of operation; or restrictions on the type and/or amount of material combusted, stored or processed shall be treated as part of the design if such limitation is Federally Enforceable.

(b) Fugitive Emissions of HAPs shall be included in the calculation of a Facility's Potential to Emit.

(c) Fugitive Emissions of other Air Pollutants shall not be included in the calculations of a Facility's Potential to Emit unless the Facility belongs to a category listed in 40 CFR 70.2 "Major Source"(2).

(d) Emissions of HAPs from any oil or gas exploration well (with its associated equipment) and emissions from any pipeline compressor or pump stations shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area.

(15) "Process Statement" - An annual report on permitted emission units from an owner or operator of a Facility certified pursuant to District Rule 3008 and containing the following information as applicable: throughputs of process materials; throughputs of materials stored; usage of materials; fuel usage; any available continuous emissions monitoring data; hours of operation; any other information required by this Rule; and/or any other information requested by the District in writing.

(16) "Regulated Air Pollutant" - Any of the following Air Pollutants:

(a) Any pollutant, and its precursors, for which a national ambient air quality standard has been promulgated.

(b) Any pollutant that is subject to a standard under 42 U.S.C. '7411 (Federal Clean Air Act '111) or any regulation promulgated pursuant to that section.

(c) Any substance which has been designated a Class I or Class II substance under 42 U.S.C. '7671a (Federal Clean Air Act '602) or any regulation promulgated pursuant to that section.

(d) Any pollutant subject to a standard or other requirement established pursuant to 42 U.S.C. '7412 (Federal Clean Air Act '112).

(17) "Twelve (12) Month Period" - A period of twelve consecutive months determined on a rolling basis with a new twelve month period beginning on the first day of each calendar month.

(18) "United States Environmental Protection Agency" (USEPA) - Refers to the Administrator or the appropriate designee of the United States Environmental Protection Agency.

(C) Emissions Limitations

(1) Unless the owner or operator of a Facility has chosen to operate the Facility under an alternative operational limit as specified in section (E), no Facility subject to this Rule shall emit in every twelve (12) month period more than the following quantities of emissions:

(a) Fifty percent (50%) of the thresholds for regulated air pollutants (excluding all HAPs) as set forth in District Rule 3001(s);

(b) For HAPs:

(i) Five (5) tons per year of a single HAP; or
(ii) Twelve and a half (12.5) tons per year of any combination of HAPs; or
(iii) Fifty percent (50%) of any lesser threshold for a single HAP as the USEPA may promulgate by regulation.

(2) The District shall evaluate the compliance by a Facility with the emissions limitations stated in subsection (C)(1) above as a part of the District's annual permit renewal process required by Health & Safety Code ' 42301(e).

(a) In performing this evaluation the District shall consider any annual process statement submitted pursuant to this Rule.

(b) In the absence of valid continuous emission monitoring data or source test data, actual emissions shall be calculated using emissions factors approved by USEPA, CARB or the District.

(3) Unless the owner or operator has chosen to operate the Facility under an alternative operational limit as specified in section (E), the owner or operator of a Facility subject to this Rule shall obtain any necessary permits or permit modification prior to commencing any physical or operational change or activity which will result in actual emissions that exceed the limits specified in subsection (C)(1) above.

(D) Record Keeping and Reporting Requirements

(1) General Record Keeping:

(a) Immediately upon adoption of this Rule, the owner or operator of a Facility subject to this Rule shall comply with the applicable record keeping requirements contained in subsections (D)(1-6) below unless:

(i) The owner or operator has chosen to operate the Facility under an alternative operational limit as specified in section (E); or
(ii) Such Facility is exempt from record keeping requirements pursuant to section (F)(1).

(b) An owner or operator who has chosen to operate the Facility under an alternative operational limit as specified in section (E) shall, instead, comply with the applicable record keeping requirements contained in that section.

(c) A Facility which was previously exempt pursuant to section (F)(1) shall comply with the appropriate record keeping requirements if such Facility exceeds the limits contained in subsection (F)(1).

(d) The record keeping requirements contained in this Rule shall not replace any record keeping requirement contained in a permit to operate or in any applicable Federal, State or District Rule or Regulation.

(e) The owner or operator of a Facility subject to this Rule shall maintain records required pursuant to this section for each permitted emission unit or groups of permitted emission units sufficient to determine actual emissions.

(i) Such records shall be summarized in a monthly log; and
(ii) Such records shall be maintained on site for a period of at least five (5) years and shall be made available to the District, CARB or USEPA staff upon request.

(2) Record Keeping for Coating and/or Solvent Emission Unit(s):

(a) The owner or operator of a Facility subject to this Rule which contains a permitted coating and/or solvent emissions unit or which uses a coating, solvent, ink or adhesive shall keep and maintain the following records:

(i) A current list of all coatings, solvents, inks and adhesives used at the Facility. This list shall contain the following information: Manufacturer, brand, product name or code; VOC content in grams per liter or pounds per gallon; and HAP content in grams per liter or pounds per

gallon.

(a) In the alternative to the above information the list may contain manufacturer's product specifications, material VOC content reports and/or laboratory reports which provide the information required above.

(ii) A description of any equipment used during and after coating or solvent application including the following: type, make and model of equipment; maximum design process rate or throughput; control device(s) type and description (if any); a description of any coating or solvent application and/or drying method(s) employed.

(iii) A monthly log of the consumption of each solvent, coating, ink and adhesive used, including but not limited to solvents used in clean-up and surface preparation.

(iv) All purchase orders, invoices, and other documents to support information contained in the monthly log.

(3) Record Keeping for Organic Liquid Storage Unit(s):

(a) The owner or operator of a Facility subject to this Rule which contains a permitted organic liquid storage unit shall keep and maintain the following records:

(i) A monthly log identifying the liquid stored and the monthly throughput.

(ii) Information on the tank design and specifications including any related control equipment

(4) Record Keeping for Combustion Emission Unit(s):

(a) The owner or operator of a Facility subject to this Rule which contains a permitted combustion emission unit shall keep and maintain the following records:

(i) Information regarding the following: equipment type, make and model; maximum design process rate or maximum power input/output; minimum operating temperature (for thermal oxidizers only); equipment capacity; type and description of control device(s), if any; all source test information for the equipment.

(ii) A monthly log containing the following: hours of operation; fuel type, usage and fuel heating value; percentage of sulfur contained in fuel oil and coal used; percentage of nitrogen contained in coal used.

a. The appropriate BTU content of the fuel shall be included in the log and stated in terms of BTU/lb or BTU/gal.

(5) Record Keeping for Emission Control Unit(s):

(a) The owner or operator of a Facility subject to this Rule that contains a permitted emission control unit shall keep and maintain the following records:

(i) Information regarding the equipment type, description, make and model of the control unit.
(ii) Information regarding the emission units served by the control unit.
(iii) Information regarding equipment design, including but not limited to: Pollutants controlled and /control effectiveness; maximum design or rated capacity; inlet and outlet temperatures; concentrations for each pollutant controlled; catalyst data including type, material, life, volume, space velocity, ammonia injection rate and temperature; baghouse data including design, cleaning method, fabric material, flow rate, and air/cloth ratio; electrostatic precipitator data including number of fields, cleaning method, and power input; scrubber data including type, design, sorbent type, and pressure drop; any other appropriate design data; and all source test information.
(iv) A monthly log of hours of operation including notation of any control equipment breakdowns, upsets, repairs, maintenance and any other deviations from design parameters.

(6) Record Keeping for General Emission Unit(s);

(a) The owner or operator of a Facility subject to this Rule that contains an emission unit not listed in subsection (D)(2-5) above, shall keep and maintain the following records:

(i) Information on the process and equipment including the following: equipment type, description, make and model; maximum design process rate or throughput; control device(s) type and description, if any.
(ii) Any additional information requested in writing by the District.
(iii) A monthly log of operating hours including: each raw material used and its amount; each product produced and its production rate.
(iv) Purchase orders, invoices, and other documents to support information in the monthly log.

(7) General Reporting Requirements:

(a) The owner or operator of a Facility subject to this Rule shall comply with the applicable reporting requirements contained in this subsection unless:

(i) Such Facility is exempt from reporting requirements pursuant to section (F)(2).

(b) At the time of annual renewal of a permit to operate pursuant to Regulation II, each owner or operator of a Facility subject to this Rule shall submit to the District a process statement.

(i) Such process statement shall be signed by the owner or operator of a Facility and shall certify that the information provided in the process statement is accurate and true.

(c) A Facility which was previously exempt pursuant to section (F)(2) shall comply with the applicable reporting requirements if such Facility exceeds the limits contained in subsection (F)(2).

(d) The District may, in writing, request the submission of additional information. The owner or operator of a Facility subject to this Rule shall submit such requested information within thirty (30) days of the date of the request.

(E) Alternative Operational Limits

(1) General Provisions for Alternative Operational Limits:

(a) The owner or operator of a Facility subject to this Rule may choose to operate under any one alternative operational limit, provided that at least ninety percent (90%) of the Facility's emissions in every twelve (12) month period are associated with the operation(s) limited by the applicable alternative operational limit.

(b) Any owner or operator of a Facility choosing to operate under any one alternative operational limit shall operate the Facility in compliance with the terms and conditions contained in the applicable alternative operating limit and comply with the specified record keeping and reporting requirements pursuant to subsection (D).

(c) Any owner or operator of a Facility choosing to operate under any one alternative operational limit shall:

(i) Report within twenty-four (24) hours to the District any exceedance of the alternative operational limit; and

(ii) Maintain all purchase order, invoices and other documentation required to support the information contained in any monthly log specified in an alternative operational limit; and

(iii) Maintain all records and other documentation required to be kept pursuant to an alternative operational limit on site for a period of at least five (5) years and to have such documentation available to the District, CARB or USEPA staff upon request.

(d) Any owner or operator of a Facility choosing to operate under any one alternative operational limit shall obtain any necessary permit prior to commencing any physical or operational change or activity which will result in an exceedance of an applicable operational limit.

(2) Alternative Operational Limit for Gasoline Dispensing Facilities with Phase I and Phase II Vapor Recovery Systems:

(a) The owner or operator shall operate the gasoline dispensing Facility in compliance with the following:

(i) No more than 7,000,000 gallons of gasoline shall be dispensed in every twelve (12) month period.

(ii) A monthly log of gallons of gasoline dispensed in the preceding month and a monthly calculation of the total gallons dispensed in the previous twelve (12) month period shall be kept on site.

(iii) A copy of the monthly log required by subsection (E)(2)(a)(ii), above, shall be submitted to the District at the time of annual permit renewal of a permit to operate pursuant to Regulation II.

a. The owner or operator shall certify the log in compliance with the provisions of District Rule 3008.

(3) Alternative Operational Limit for Degreasing or Solvent Using Unit(s):

(a) The owner or operator shall operate the degreasing or solvent-using unit(s) in compliance with the following:

(i) If the solvents used <u>do not include</u> methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene) or trichloroethylene:

a. No more than 5,400 gallons of any combination of solvent containing materials shall be used in every twelve (12) month period; and

b. No more than 2,200 gallons of any one solvent containing material shall be used in every twelve (12) month period.

(ii) If the solvents used <u>include</u> methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene) or trichloroethylene:

a. No more than 2,900 gallons of any combination of solvent

containing materials shall be used in every twelve (12) month period; and

b. No more than 1,200 gallons of any one solvent containing material shall be used in every twelve (12) month period.

(iii) A monthly log of amount and type of solvent used in the preceding month with a monthly calculation of the total gallons used in the previous twelve (12) month period shall be kept on site.

(iv) A copy of the monthly log required by subsection (E)(3)(a)(iii) above shall be submitted to the District at the time of annual permit renewal of a permit to operate pursuant to Regulation II.

a. The owner or operator shall certify the log in compliance with the provisions of District Rule 3008.

(4) Alternative Operational Limit for Paint Spraying Unit(s):

(a) The owner or operator shall operate the paint spraying unit(s) in compliance with the following:

(i) The total usage rate of all VOC containing materials, including but not limited to coatings, thinner, reducers, and cleanup solution shall not exceed 2,388 gallons in every twelve (12) month period.

a. The VOC content of the material used at a paint spray unit shall not exceed 6.7 lbs. solvent per gallon coating, as applied, less water and exempt compounds. Nothing in this section shall be construed to exempt an owner or operator from compliance with the applicable VOC content limitation for specific coatings as contained in applicable District Rules of Regulations IV and XI.

(ii) A monthly log of the gallons of VOC containing materials used in the preceding month with a monthly calculation of the total gallons used in the previous twelve (12) month period shall be kept on site.

(iii) A copy of the monthly log shall be submitted to the District at the time of annual permit renewal of a permit to operate pursuant to Regulation II.

a. The owner or operator shall certify the log in compliance with the provisions of District Rule 3008.

(5) Alternative Operational Limit for Diesel-Fueled Emergency Standby Engine(s) with Output Less Than 1,000 Brake Horsepower:

(a) The owner or operator shall operate the emergency standby engine(s) in compliance with the following:

(i) The emergency standby engine(s) shall not operate more than 1,300 hours in every twelve (12) month period and shall not use more than 66,000 gallons of diesel fuel in every twelve (12) month period.

(ii) A monthly log of hours of operation, gallons of fuel used, and a monthly calculation of the total hours operated and gallons of fuel used in the previous twelve (12) month period shall be kept on site.

(iii) A copy of the monthly log required by section (E)(5)(a)(ii) above shall be submitted to the District at the time of annual permit renewal of a permit to operate pursuant to Regulation II.

a. The owner or operator shall certify the log in compliance with the provisions of District Rule 3008.

(F) Exemptions from Record Keeping and Reporting Requirements

(1) Facilities with De Minimis Emissions:

(a) The record keeping and reporting requirements found in sections (C), (D)(1-6) and (E) shall not apply to a Facility which meets either of the following:

(i) The Facility emits less than or equal to the following quantities of emissions in every twelve (12) month period:

a. Five (5) tons per year of a regulated air pollutant excluding HAPs.

b. For HAPs:

1. Two (2) tons per year of a single HAP; or
2. Five (5) tons per year of any combination of HAPs; or
3. Twenty percent (20%) of any lesser threshold for a single HAP that the USEPA may promulgate by regulation.

(ii) At least ninety percent (90%) of the Facility's emissions are associated with an operation for which the throughput is less than or equal to one of the following quantities for every twelve (12) month period:

a. 1,400 gallons of any combination of solvent containing materials but no more than 550 gallons of any one solvent containing material, provided that the materials do not contain methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichlorethylene.

b. 750 gallons of any combination of solvent containing materials where the materials contain methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichlorethylene.

c. 597 gallons of volatile organic compound containing material used at a paint spray unit(s).

1. The VOC content of the material used at a paint spray unit shall not exceed 6.7 lbs. solvent per gallon coating, as applied, less water and exempt compounds. Nothing in this section shall be construed to exempt an owner or operator from compliace with the applicable VOC content limitation for specific coatings as contained in applicable District Rules of Regulations IV and XI.

d. 4,400,000 gallons of gasoline dispensed from equipment with Phase I and Phase II vapor recovery systems.

e. 470,000 gallons of gasoline dispensed from equipment without Phase I and Phase II vapor recovery systems.

f. 1,400 gallons of gasoline combusted.

g. 16,600 gallons of diesel fuel combusted.

h. 500,000 gallons of distillate oil combusted.

i. 71,400,000 cubic feet of natural gas combusted.

(c) The owner or operator of any Facility which is exempt from record keeping pursuant to this subsection, shall within thirty (30) days of a written request by the District or USEPA demonstrate that the emissions or throughput rates are not in excess of the applicable quantities as set forth in this subsection.

(2) Small Facilities with Greater than De Minimis Emissions:

(a) The reporting requirements found in subsection (D)(7) shall not apply to a Facility which meets the following:

(i) The Facility emits less than or equal to the following quantities of emissions in every twelve (12) month period:

a. For any regulated air pollutant excluding HAPs:

1. Twenty five (25) tons per year of a regulated air pollutant for which the District has a Federal area designation of attainment, unclassified, transitional or moderate nonattainment.

2. Fifteen (15) tons per year of a regulated air pollutant for which the District has a Federal area designation of serious nonattainment.

3. Six and twenty five hundredths (6.25) tons per year of a regulated air pollutant for which the District has a Federal area designation of severe nonattainment.

b. For HAPs:

1. Two and fifty hundredths (2.50) tons per year of a single HAP; or

2. Six and fifty hundredths (6.50) tons per year of any

combination of HAPs; or

3. Twenty percent (25%) of any lesser threshold for a single HAP that the USEPA may promulgate by regulation.

(G) Public Notice

(1) Within three years of the effective date of Regulation XXX, the District shall maintain and make available to the public, upon request the following:

(a) A list of all facilities to which this Rule is applicable; and

(b) Which provision(s) of this Rule each Facility is complying with.

(H) Enforcement and Violations

(1) Interaction with other District Rules:

(a) This Rule shall not relieve any Facility from complying with requirements pertaining to any otherwise applicable preconstruction permit, or replace any condition or term contained in any preconstruction permit, or any provision of a preconstruction permitting program.

(b) Nothing in this Rule shall preclude the issuance of any permit which contains conditions or terms necessary to ensure compliance with this or any other District Rule.

(2) A Facility which is subject to this Rule shall be subject to the applicable federal requirements for a major Facility, including Regulation XXX, on the first day following every twelve (12) month period when either of the of the following occur:

(a) The Facility exceeds a limit specified in sections (C) or (E); or

(b) The owner or operator of the Facility can not demonstrate that the Facility is in compliance with a limit specified in sections (C) or (E).

(3) Failure to comply with any applicable provision of this Rule shall constitute a violation of the Rule. Each day during which a violation of this Rule occurs shall constitute a separate violation.

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SOUTH COAST
7/10/84

~~January 26, 1984~~
adopted 3-2-84

~~Proposed~~ Amended Rule 401. Visible Emissions

(a) 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 minutes in any one hour which is:

(1) As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or

(2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (a)(1) of this rule.

(b) Notwithstanding the provisions of subsection (a) of this rule, a person shall not discharge into the atmosphere from equipment for melting, heating, or holding asphalt or coal tar pitch for on-site roof construction or repair; or from diesel pile driving hammers; any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(1) As dark or darker in shade as that designated No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or

(2) Of such an opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (b)(1) of this rule.

~~Proposed~~ Amended Rule 401

(c) This rule shall not apply to asphalt pavement heaters.

(d) This rule shall not apply to abrasive blasting operations.

~~(e) This rule shall not apply to coke ovens except for the stacks.~~

(**Adopted**: 02/07/76; **Amended**: 11/06/92; **Amended**: 07/09/93; **Amended**: 02/14/97: **Amended**: 04/20/10)

RULE 403
Fugitive Dust

(A) General

(1) Purpose

(a) The purpose of this rule is to reduce the amount of Particulate Matter entrained in the ambient air as a result of anthropogenic (man-made) Fugitive Dust sources by requiring actions to prevent, reduce or mitigate Fugitive Dust emissions.

(2) Applicability

(a) The provisions of this rule shall apply to any activity or man-made condition capable of generating Fugitive Dust.

(B) Definitions

(1) "Active Operations" – Any activity capable of generating Fugitive Dust, including, but not limited to, Earth-Moving Activities, Construction/Demolition Activities, or heavy- and light-duty vehicular movement.

(2) "Agricultural Operation" – The growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural Operations do not include activities involving the processing or distribution of crops or fowl.

(3) "Air Pollution Control Officer (APCO)" – The person appointed to the position of Air Pollution Control Officer pursuant to the provisions of Health and Safety Code §40750 and his or her designee.

(4) "Anemometers" – Devices used to measure wind speed and direction.

(5) "Bulk Material" – Sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic Particulate Matter.

(6) "Chemical Stabilizers" – Any non-toxic chemical Dust Suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the United States Environmental Protection Agency, or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic Chemical Stabilizer shall be of sufficient concentration and application frequency to maintain a Stabilized Surface.

(7) "Construction/Demolition Activities" – Any on-site mechanical activities preparatory to or related to the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities; grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(8) "Contractor" – Any person who has a contractual arrangement to conduct an active operation for another person.

(9) "Disturbed Surface Area" – A portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of Fugitive Dust. This definition excludes those areas which have:

(a) Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(b) Been paved or otherwise covered by a permanent structure; or

(c) Sustained a vegetative ground cover over at least 70 percent of an area for a period of at least six months.

(10) "Dust Control Plan (DCP)" – A District-approved document that describes what measures will be taken at a location to comply with this rule, prepared in accordance with section (D).

(11) "Dust Suppressants" – Water, hygroscopic materials, or non-toxic Chemical Stabilizers used as a treatment material to reduce Fugitive Dust emissions.

(12) "Earth-Moving Activities" – The use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or Bulk Materials, adding to or removing from Open Storage Piles of Bulk Materials, landfill operations, weed abatement through disking, and soil mulching.

(13) "Fugitive Dust" – Any solid Particulate Matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of man.

(14) "High Wind Conditions" – Instantaneous wind speeds (gusts) which exceed 25 miles per hour.

(15) "Inactive Disturbed Surface Area" – Any Disturbed Surface Area upon which Active Operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(16) "Non-Routine" – Any non-periodic active operation which occurs no more than three times per year, lasts less than 30 cumulative days per year, and is scheduled less than 30 days in advance.

(17) "Open Storage Pile" – Any accumulation of Bulk Material with five percent or greater Silt content which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet. Silt content level is assumed to be five percent or greater unless a person can show, by sampling and analysis in accordance with ASTM Method C-136 or other equivalent method approved in writing by the APCO and the California Air Resources Board, that the Silt content is less than five percent. The results of ASTM Method C-136 or equivalent method are valid for 60 days from the date the sample was taken.

(18) "Particulate Matter" – Any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(19) "Paved Road" – An improved street, highway, alley, public way, or easement that is covered by typical roadway materials excluding access roadways that connect a facility with a public Paved Road and are not open to through traffic. Public Paved Roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private Paved Roads are any Paved Roads not defined as public.

(20) "PM_{10}" – Particulate Matter with an aerodynamic diameter smaller than or equal to ten microns as measured by the applicable state and federal reference test methods.

(21) "Property Line" – The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the Property Line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(22) "Silt" – Any aggregate material with a particle size less than 74 micrometers in diameter which passes through a No. 200 sieve.

(23) "Simultaneous Sampling" – The operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(24) "Stabilized Surface" – Any previously Disturbed Surface Area or Open Storage Pile which, through the application of Dust Suppressants, shows visual or other evidence of surface crusting and is resistant to Wind-Driven Fugitive Dust and is demonstrated to be stabilized and where Visible Dust Emissions are limited to 20 percent opacity. Chemical treatment must be performed with a substance not disapproved for such use by the applicable Regional Water Quality Control Board.

(25) "Track-out" – Any Bulk Material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(26) "Unpaved Roads" – Any unsealed or earthen roads, equipment paths, or travel ways that are not covered by one of the following: concrete, asphaltic concrete, recycled asphalt, or asphalt.

(27) "United States Environmental Protection Agency (USEPA)" – Refers to the Administrator or the appropriate designee of the United States Environmental Protection Agency.

(28) "Visible Dust Emissions (VDE)" – Any dust emissions that are visible to an observer.

(29) "Wind-Driven Fugitive Dust" – Visible emissions from any Disturbed Surface Area which is generated by wind action alone.

(30) "Wind Gust" – The maximum instantaneous wind speed as measured by an Anemometer.

(C) Requirements

(1) A person shall not cause or allow the emissions of Fugitive Dust from:

(a) Any Active Operation, Open Storage Pile, or Disturbed Surface Area such that the presence of such dust remains visible in the atmosphere beyond the Property Line of the emission source; or

(b) Any applicable source such that the dust causes 20 percent opacity or greater during each observation and the total duration of such observations (not necessarily consecutive) is a cumulative three minutes or more in any one hour. Only opacity readings from a single source shall be included in the cumulative total used to determine compliance.

(2) A person shall not cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by Simultaneous Sampling, as the difference between upwind and downwind samples collected on high-volume Particulate Matter samplers or other USEPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(a) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate USEPA-published documents for USEPA-approved equivalent method(s) for PM_{10}.

(b) Reasonably placed upwind and downwind of key activity areas and as close to the Property Line as feasible, such that other sources of Fugitive Dust between the sampler and the Property Line are minimized.

(3) Track-out Operations

(a) A person shall not allow Track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation.

Notwithstanding the preceding, all Track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(b) A person shall not conduct an Active Operation with a Disturbed Surface Area of five or more acres, or with a daily import or export of 100 cubic yards or more of Bulk Material without utilizing at least one of the measures listed in subparagraphs (C)(3)(b)(i) through (C)(3)(b)(v) at each vehicle egress from the site to a paved public road.

(i) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long;

(ii) Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a Stabilized Surface starting from the point of intersection with the public paved surface, and extending at least 100 feet and at least 20 feet wide;

(iii) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and ten feet wide to remove Bulk Material from tires and vehicle undercarriages before vehicles exit the site;

(iv) Install and utilize a wheel washing system to remove Bulk Material from tires and vehicle undercarriages before vehicles exit the site; or

(v) Any other control measure approved by the APCO and the USEPA as equivalent to the methods specified in subparagraphs (C)(3)(b)(i) through (C)(3)(b)(iv).

(4) Earth-Moving Operations

(a) A person shall not conduct an Active Operation of Construction, excavation, extraction and other Earth-Moving Activities with a Disturbed Surface Area of five or more acres, or with a daily import or export of 100 cubic yards or more of Bulk Material without utilizing at least one of the measures listed for each of the operation stages specified in subparagraphs (C)(4)(a)(i) through (C)(4)(a)(iv).

(i) Pre-activity:

a. Pre-water site sufficient to limit VDE to 20 percent opacity; and

b. Phase work to reduce the amount of Disturbed Surface Area at any one time

(ii) During Active Operations:

a. Apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20 percent opacity;
b. Construct and maintain wind barriers sufficient to limit VDE to 20 percent opacity. If utilizing wind barriers, control measure (a) above shall also be implemented; or
c. Apply water or chemical/organic stabilizers/suppressants to unpaved haul/access roads and unpaved vehicle/equipment traffic areas sufficient to limit VDE to 20 percent opacity and meet the requirements of section (C)(9).

(iii) Temporary Stabilization During Periods of Inactivity:

a. Restrict vehicular access to the area; and
b. Apply water or chemical/organic stabilizers/suppressants, sufficient to limit VDE to 20 percent opacity, or to comply with the conditions of a Stabilized Surface. If an area having one-half acres or more of Disturbed Surface Area remains unused for seven or more days, the area must comply with the conditions for a Stabilized Surface area.

(iv) Any other control measures approved by the APCO and the USEPA as equivalent to the methods specified in subparagraphs (C)(4)(a)(i) through(C)(4)(a)(iii).

(5) Demolition Operations

(a) A person shall implement the requirements of (C)(5)(a)(i) through (C)(5)(a)(v) when using wrecking balls or other wrecking equipment to raze or demolish buildings:

(i) Apply sufficient water to building exterior surfaces and razed building materials to limit VDE to 20 percent opacity throughout the duration of razing and demolition activities;
(ii) Apply sufficient Dust Suppressants to unpaved surface areas where materials from razing or demolition activities will fall, or where wrecking or hauling equipment will be operated, in order to limit VDE to 20 percent opacity;
(iii) Handling, storage, and transport of Bulk Materials on-site or off-site resulting from the demolition or razing of buildings shall comply with the requirements specified in section (C)(6);
(iv) Prevention and removal of carryout or Track-out on paved public access roads from demolition operations shall be performed in accordance with (C)(3); or
(v) Any other control measures approved by the APCO and the USEPA as equivalent to the methods specified in subparagraphs (C)(5)(a)(i) through (C)(5)(a)(iv).

(6) Bulk Material Operations

(a) No person shall conduct an active operation of handling Bulk Material with a daily import or export of 100 cubic yards or more of Bulk Material without utilizing at least one of the measures listed for each of the operation stages specified in subparagraphs (C)(6)(a)(i) through (C)(6)(a)(vi):

(i) Handling of Bulk Materials:

a. When handling Bulk Materials, apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20 percent opacity; or
b. Construct and maintain wind barriers sufficient to limit VDE to 20 percent opacity and with less than 50 percent porosity. If utilizing fences or wind barriers, control measure (C)(6)(a)(i)[a.] shall also be implemented.

(ii) Storage of Bulk Materials:

a. When storing Bulk Materials, comply with the conditions for a Stabilized Surface;
b. Cover Bulk Materials stored outdoors with tarps, plastic, or other suitable material and anchor in such a manner that prevents the cover from being removed by wind action;
c. Construct and maintain wind barriers sufficient to limit VDE to 20 percent opacity and with less than 50 percent porosity. If utilizing fences or wind barriers, apply water or chemical/organic stabilizers/suppressants to limit VDE to 20 percent opacity;
d. Utilize a three-sided structure with a height at least equal to the height of the storage pile and with less than 50 percent porosity; or
e. Installation of wind breaks of such design so as to reduce maximum Wind Gusts to less than 25 miles per hour in the area of the Bulk Material deposits.

(iii) On-site Transporting of Bulk Materials:

a. Limit vehicular speed while traveling on the work site sufficient to limit VDE to 20 percent opacity;
b. Load all haul trucks such that the freeboard is not less than six inches when material is transported across any paved public access road sufficient to limit VDE to 20 percent opacity;
c. Apply water to the top of the load sufficient to limit VDE to 20 percent opacity; or
d. Cover haul trucks with a tarp or other suitable cover.

(iv) Off-site Transporting of Bulk Materials:

a. Clean the interior of the cargo compartment or cover the cargo compartment before the empty truck leaves the site;
b. Prevent spillage or loss of Bulk Material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate; and
c. Load all haul trucks such that the freeboard is not less than six inches when material is transported on any paved public access road, and apply water to the top of the load sufficient to limit VDE to 20 percent opacity; or cover haul trucks with a tarp or other suitable cover.

(v) Outdoor Transport of Bulk Materials With a Chute or Conveyor:

a. Fully enclose the chute or conveyor;
b. Operate water spray equipment that sufficiently wets materials to limit VDE to 20 percent opacity; or
c. Wash separated or screened materials to remove conveyed materials having an aerodynamic diameter of ten microns or less sufficient to limit VDE to 20 percent opacity.

(vi) Any other control measures approved by the APCO and USEPA as equivalent to the methods specified in subparagraphs (C)(6)(a)(i) through(C)(6)(a)(v).

(7) Disturbed Open Area of Three or More Acres

(a) An owner/operator of an open area with a Disturbed Surface of three or more acres that has remained undeveloped, unoccupied, unused, or vacant for more than seven days shall do at least one of the following:

(i) Apply and maintain water or Dust Suppressant(s) to all unvegetated areas sufficient to limit VDE to 20 percent opacity;
(ii) Establish vegetation on all previously disturbed areas sufficient to limit VDE to 20 percent opacity;
(iii) Pave, apply and maintain gravel, or apply and maintain chemical/organic stabilizers/suppressants sufficient to limit VDE to 20 percent opacity;
(iv) Upon evidence of trespass, prevent unauthorized vehicle access by posting "No Trespassing" signs or installing physical barriers such as fences, gates, posts, and/or other appropriate barriers to effectively prevent access to the area; or
(v) Any other control measures approved by the APCO and the USEPA as equivalent to the methods specified in subparagraphs (C)(7)(a)(i) through(C)(7)(a)(iv).

(8) Unpaved Roads at Industrial or Commercial Facilities

(a) An owner/operator of an Unpaved Road at an industrial or commercial facility shall limit VDE to 20 percent opacity from the Unpaved Road segment by application and/or maintenance of at least one of the following control measures, or shall implement an APCO approved Dust Control Plan:

(i) Apply and maintain water or Dust Suppressant(s) sufficient to limit VDE to 20 percent opacity;
(ii) Pave, apply and maintain gravel, or apply and maintain chemical/organic stabilizers/suppressants sufficient to limit VDE to 20 percent opacity;
(iii) Restrict vehicle speed to 15 miles per hour; or
(iv) Any other method that effectively limits VDE to 20 percent opacity and results in a stabilized Unpaved Road surface.

(9) Unpaved Vehicle/Equipment Traffic Area

(a) An owner/operator of an unpaved vehicle/equipment traffic area shall limit VDE to 20 percent opacity from the unpaved vehicle/equipment traffic area by application and/or maintenance of at least one of the following control measures, or shall implement an APCO approved Dust Control Plan:

(i) Apply and maintain water or Dust Suppressant(s) sufficient to limit VDE to 20 percent opacity;
(ii) Pave, apply and maintain gravel, or apply and maintain chemical/organic stabilizers/suppressants sufficient to limit VDE to 20 percent opacity;
(iii) Restrict vehicle speed to 15 miles per hour;
(iv) An owner/operator shall restrict access and periodically stabilize a Disturbed Surface Area whenever a site becomes an Inactive Disturbed Surface Area to comply with the conditions for a Stabilized Surface; or
(v) Any other method that effectively limits VDE to 20 percent opacity and results in a Stabilized Surface.

(10) A person performing Earth-Moving Activities during High Wind Conditions shall:

(a) Cease all Active Operations; or

(b) Apply water to soil not more than 15 minutes prior to moving such soil to limit VDE to 20 percent opacity.

(11) The owner/operator of Disturbed Surface Areas during High Wind Conditions shall:

(a) Apply water with a mixture of Chemical Stabilizer diluted to not less than 1/20 of the concentration required to maintain a Stabilized Surface for a period of six months only on the last day of Active Operations prior to a weekend, holiday, or any other period when Active Operations will not occur for not more than four consecutive days;

(b) Apply Chemical Stabilizers prior to high wind event;

(c) Apply water to all unstabilized Disturbed Areas three times per day. Watering frequency should be increased to a minimum of four times per day if there is any evidence of visible Wind-Driven Fugitive Dust;

(d) Establish a vegetative ground cover within 30 days after Active Operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter;

(e) Apply Chemical Stabilizers within seven working days of grading completion; or

(f) Utilize any combination of control actions listed such that, in total, these actions apply to all Disturbed Surface Areas.

(12) Owners/operators of Unpaved Roads during high winds shall:

(a) Apply Chemical Stabilizers prior to wind event;

(b) Apply water once per hour during active operation; or

(c) Stop all vehicular traffic.

(13) Owners/operators of Open Storage Piles during high winds shall:

(a) Apply Chemical Stabilizers;

(b) Apply water to at lest 70 percent of the surface area of all Open Storage Piles on a daily basis when there is evidence of Wind-Driven Fugitive Dust;

(c) Install temporary coverings; or

(d) Install a three sided enclosure which will extend, at a minimum, to the top of the pile.

(14) Owners/operators of all categories during high winds shall:

(a) Use any other control measures approved by the APCO and the USEPA as equivalent to the methods specified in section (C).

(D) Dust Control Plan

(1) An owner/operator shall submit a Dust Control Plan (DCP) to the APCO prior to the start of any construction activity on any site that will include ten acres or more of Disturbed Surface Area for residential developments, or five acres or more of Disturbed Surface Area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of Bulk Materials on at least three days. Construction activities shall not commence until the APCO has approved or conditionally approved the DCP. An owner/operator shall provide written notification to the APCO within ten days prior to the commencement of Earth-Moving Activities via fax or mail. The requirement to submit a DCP shall apply to all such activities conducted for residential and non-residential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.

(a) Install and maintain project signage with project contact prior to initiating any Earth-Moving Activities that;

(i) Identifies phone numbers for dust complaints; and
(ii) Meets minimum standards of Rule 403, Appendix "A".

(b) An owner/operator may submit one DCP covering multiple projects at different sites where construction will commence within the next 12 months provided the DCP includes each project size, location, and types of activities to be performed. The DCP shall specify the expected start and completion date of each project.

(c) The DCP shall describe all Fugitive Dust control measures to be implemented before, during, and after any dust generating activity.

(d) A DCP shall contain all the information described in section (D)(1)(h)(i) through (D)(1)(h)(viii). The APCO shall approve, disapprove, or conditionally approve the DCP within ten days of DCP submittal. A DCP is deemed automatically approved if, after ten days following receipt by the District, the District does not provide any comments to the owner/operator regarding the DCP.

(e) An owner/operator shall submit a copy of a DCP approval letter to the building and safety authority prior to issuance of a grading permit.

(f) An owner/operator shall retain a copy of an approved DCP at the project site. The approved DCP shall remain valid until the termination of all dust generating activities. Failure to comply with the provisions of an approved DCP is deemed to be a violation of this rule. Regardless of whether an approved DCP is in place or not, or even when the owner/operator responsible for the DCP is complying with an approved DCP, the owner/operator is still subject to comply with all requirements of Rule 403 at all times.

(g) An owner/operator shall maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the APCO upon request.

(h) A DCP shall contain all of the following information:

(i) Name(s), address(es), and phone number(s) of person(s) and owner(s)/operator(s) responsible for the preparation, submittal, and implementation of the DCP and responsible for the dust generating operation and the application of dust control measures.

(ii) A plot plan which shows the type and location of each project.

(iii) The total area of land surface to be disturbed, daily throughput volume of earthmoving in cubic yards, and total area in acres of the entire project site.

(iv) The expected start and completion dates of dust generating and soil disturbance activities to be performed on the site.

(v) The actual and potential sources of Fugitive Dust emissions on the site and the location of Bulk Material handling and storage areas, paved and Unpaved Roads; entrances and exits where carryout/Track-out may occur; and traffic areas.

(vi) Dust Suppressants to be applied, including: product specifications; manufacturer's usage instructions (method, frequency, and intensity of application); type, number, and capacity of application equipment; and information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

(vii) Specific surface treatment(s) and/or control measures utilized to control material carryout, Track-out, and sedimentation where unpaved and/or access points join paved public access roads.

(viii) Identify a dust control supervisor that:

a. Is employed by or contracted with the property owner or developer;
b. Is on the site or available on-site within 30 minutes during working hours;
c. Has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with Rule requirements; and
d. Has completed the AVAQMD Fugitive Dust Control Class and has been issued a valid Certification of Completion for the class.

(i) Notify the APCO in writing within 30 days after the site no longer qualifies as an active operation.

(j) Any approved DCP shall be valid for a period of one year from the date of approval or conditional approval of the DCP. DCPs must be resubmitted annually, at least 60 days prior to the expiration date, or the DCP shall become disapproved as of the expiration date. If all Fugitive Dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously approved DCP, the resubmittal may contain a simple statement of no-change. Otherwise, a resubmittal must contain all the items specified in subparagraphs (D)(1)(h).

(E) Compliance Schedule

All the newly amended provisions of this rule shall become effective upon adoption of this rule amendment.

(F) Exemptions

(1) The provisions of this rule shall not apply to:

(a) Agricultural Operations.

(b) Unpaved Roads not part of an industrial or commercial facility.

(c) Any Disturbed Surface Area less than one-half acre on property zoned for residential uses.

(d) Active Operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(e) Active Operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(f) Any Contractor subsequent to the time the contract ends, provided that such Contractor implemented the required control measures during the contractual period.

(g) Any grading Contractor, for a phase of Active Operations, subsequent to the contractual completion of that phase of Earth-Moving Activities, provided that the required control measures have been implemented during the entire phase of Earth-Moving Activities, through and including five days after the final grading inspection.

(h) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) Mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) Any disking or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in (F)(1)(h)(i). The provisions of this clause shall not exempt the owner of any property from stabilizing Disturbed Surface Areas which have been created as a result of the weed abatement actions.

(i) Blasting operations which have been permitted by the California Division of Industrial Safety.

(j) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the APCO must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(2) The provisions of paragraphs (C)(1) through (C)(14) shall not apply:

(a) When high winds exceed 25 miles per hour, provided that:

(i) The required control measures for High Wind Conditions are implemented for each applicable Fugitive Dust source type, as specified in section (C)(10) through (C)(14);

(ii) Maintain daily records to document the specific actions taken;

(iii) Maintain such records for a period of not less than six months; and

(iv) Make such records available to the APCO upon request.

(b) To Unpaved Roads, provided such roads:

(i) Are used solely for the maintenance of wind-generating equipment; or

(ii) Meet all of the following criteria:

a. Are less than 50 feet in width at all points along the road;

b. Are within 25 feet of the Property Line; and

c. Have a traffic volume less than 20 vehicle-trips per day.

(c) To any Active Operation, Open Storage Pile, or Disturbed Surface Area for which necessary Fugitive Dust preventive or mitigative actions are in conflict with the federal Endangered Species Act.

(d) To Non-routine or emergency maintenance of flood control channels and water spreading basins.

(4) The provisions of section (C)(3) shall not apply to earth coverings of public Paved Roads where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles.

(5) The provisions of section (D) shall not apply to:

(a) Officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(G) Fees

(1) Any person subject to a Dust Control Plan submittal pursuant to section (D) shall be assessed applicable filing and evaluation fees pursuant to Rule 306.

(2) The submittal of an annual statement of no-change, pursuant to section (D)(1)(i), shall not be considered as an annual review, and therefore shall not be subject to annual review fees, pursuant to Rule 306.

(3) The owner/operator of any facility for which the APCO conducts upwind/downwind monitoring for PM_{10} pursuant to section (C)(2) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1.

[SIP: Submitted as amended mm/dd/yy on mm/dd/yy; Submitted as amended 2/14/97 on 8/1/97; Submitted as amended 7/9/93 on 7/13/94; Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C); Approved 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(32)(iv)(A)]

Appendix "A"

CONSTRUCTION SITE SIGNAGE GUIDELINES
(Minimum Requirements)

The purpose of this signage is to allow the public to contact the responsible party if Visible Dust Emissions or Track-out of material is observed from a construction site.

Project size	≥ Ten Acres
Sign size	48" x 96"

Sign Template

Permit # (if applicable)	4"
Site Name	4"
Project Name / Tract # # # #	4"
IF YOU SEE DUST COMING FROM THIS PROJECT CALL	4"
Name, Phone Number(XXX) XXX-XXXX	6"
If you do not receive a response, Please call The Antelope Valley AQMD at 1-877-723-8070	3"

Notes:

Signage must be located within 50 feet of each project site entrance.

No more than four signs are required per site/facility.

One sign is sufficient for multiple site entrances located within 300 yards of each other.

Text height shall be at a minimum as shown on right side of sign template above.

Sign background must contrast with lettering, typically black text with white background.

Sign should be one inch AC laminated plywood board.

The lower edge of the sign board must be a minimum of six feet and a maximum of seven feet above grade.

The telephone number listed for the contact must be a local or a toll-free number and shall be accessible 24 hours per day.

12/17/79

~~Proposed~~ Amended Rule 404-Particulate Matter-Concentration

(a) A person shall not discharge into the atmosphere from any source, particulate matter ~~except liquid sulfur compounds~~ in excess of the concentration at standard conditions, shown in Table 404(a).

Where the volume discharged is between figures listed in the table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

The provisions of this subsection shall not apply to any equipment completed and put into service before July 1, 1976 in the Palo Verde and Joshua Tree areas.

Before July 1, 1983, liquid sulfur compounds shall not be included as particulate matter discharged from petroleum coke calciners.

(b) A person shall not discharge into the atmosphere from any source, particulate matter ~~except liquid sulfur compounds~~, in excess of 450 milligrams per cubic meter (0.196 grain per cubic foot) ~~of gas at standard conditions~~. in discharged gas calculated as dry gas at standard conditions.

The provisions of this subsection shall apply only to any equipment completed and put into service before July 1, 1976 in the Palo Verde and Joshua Tree areas.

(c) The provisions of this rule shall not apply to emissions resulting from the combustion of liquid or gaseous fuels in steam generators or gas turbines.

(d) For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

TABLE 404(a)

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
Cubic Meters Per Minute	Cubic Feet Per Minute	Milligrams Per Cubic Meter	Grains Per Cubic Foot	Cubic Meters Per Minute	Cubic Feet Per Minute	Milligrams Per Cubic Meter	Grains Per Cubic Foot
25 or less	883 or less	450	0.196	980	31780	118	0.0515
30	1059	420	.183	1000	35310	113	.0493
35	1236	397	.173	1100	38850	109	.0476
40	1413	377	.165	1200	42380	106	.0463
45	1589	361	.158	1300	45910	102	.0445
50	1766	347	.152	1400	49440	100	.0437
60	2119	324	.141	1500	52970	97	.0424
70	2472	306	.134	1750	61800	92	.0402
80	2825	291	.127	2000	70630	87	.0380
90	3178	279	.122	2250	79460	83	.0362
100	3531	267	.117	2500	88290	80	.0349
125	4414	246	.107	3000	105900	75	.0327
150	5297	230	.100	4000	141300	67	.0293
175	6180	217	.0947	5000	176600	62	.0271
200	7063	206	.0900	6000	211900	58	.0253
250	8829	190	.0830	8000	282500	52	.0227
300	10590	177	.0773	10000	353100	48	.0210
350	12360	167	.0730	15000	529700	41	.0179
400	14130	159	.0694	20000	706300	37	.0162
450	15890	152	.0664	25000	882900	34	.0148
500	17660	146	.0637	30000	1059000	32	.0140
600	21190	137	.0598	40000	1413000	28	.0122
700	24720	129	.0563	50000	1766000	26	.0114
800	28250	123	.0537	70000 or more	2472000 or more	23	.0100

8/2/76
4/23/80

RULE 405. Solid Particulate Matter - Weight

(a) A person shall not discharge into the atmosphere from any source, solid particulate matter including lead and lead compounds, in excess of the rate shown in Table 405 (a).

Where the process weight per hour is between figures listed in the table, the exact weight of permitted discharge shall be determined by linear interpolation.

The provisions of this subsection shall not apply to any equipment completed and put into service before July 1, 1976 in the Palo Verde and Joshua Tree Areas.

(b) A person shall not discharge into the atmosphere in any one hour from any source, solid particulate matter including lead and lead compounds, in excess of 0.23 kilogram (0.5 pound) per 907 kilograms (2000 pounds) of process weight.

For the purposes of this subsection only, process air shall be considered to be a material introduced into the process when calculating process weight.

The provisions of this subsection shall apply only to equipment completed and put into service before July 1, 1976 in the Palo Verde and Joshua Tree Areas.

(c) For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

TABLE 405(a)

Process Weight Per Hour		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged From All points of Process)		Process Weight Per Hour		Maximum Discharge Allowed for Solid ticulate Matter (A gate Discharged F All points of Proc	
grams Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour	Kilograms Per Hour	Pou Per
100 or less	220 or less	0.450	0.99	9000	19840	5.308	11.7
150	331	0.585	1.29	10000	22050	5.440	12.0
200	441	0.703	1.55	12500	27560	5.732	12.6
250	551	0.804	1.77	15000	33070	5.982	13.2
300	661	0.897	1.98	17500	38580	6.202	13.7
350	772	0.983	2.17	20000	44090	6.399	14.1
400	882	1.063	2.34	25000	55120	6.743	14.9
450	992	1.138	2.51	30000	66140	7.037	15.5
500	1102	1.209	2.67	35000	77160	7.296	16.1
600	1323	1.340	2.95	40000	88180	7.527	16.6
700	1543	1.461	3.22	45000	99210	7.738	17.1
800	1764	1.573	3.47	50000	110200	7.931	17.5
00	1984	1.678	3.70	60000	132300	8.277	18.2
1000	2205	1.777	3.92	70000	154300	8.582	18.9
1250	2756	2.003	4.42	80000	176400	8.854	19.5
1500	3307	2.206	4.86	90000	198400	9.102	20.1
1750	3858	2.392	5.27	100000	220500	9.329	20.6
2000	4409	2.563	5.65	125000	275600	9.830	21.7
2250	4960	2.723	6.00	150000	330700	10.26	22.6
2500	5512	2.874	6.34	175000	385800	10.64	23.5
2750	6063	3.016	6.65	200000	440900	10.97	24.2
3000	6614	3.151	6.95	225000	496000	11.28	24.9
3250	7165	3.280	7.23	250000	551200	11.56	25.5
3500	7716	3.404	7.50	275000	606300	11.82	26.1
4000	8818	3.637	8.02	300000	661400	12.07	26.6
00	9921	3.855	8.50	325000	716500	12.30	27.1
5000	11020	4.059	8.95	350000	771600	12.51	27.6
6000	13230	4.434	9.78	400000	881800	12.91	28.5
7000	15430	4.775	10.5	450000	992100	13.27	29.3
8000	17640	5.080	11.2	500000	1102000	13.60	

ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

RULE 407
Liquid And Gaseous Air Contaminants
(Adopted : 05/07/76; Amended: 04/02/82)

(a) A person shall not discharge into the atmosphere from any equipment:

1. Carbon monoxide (CO) exceeding 2,000 ppm by volume measured on a dry basis, averaged over 15 consecutive minutes.
2. Sulfur compounds which would exist as liquid or gas at standard conditions, calculated as sulfur dioxide (SO2) and averaged over 15 consecutive minutes, exceeding:
    A. In the South Coast Air Basin, 500 ppm by volume, effective July 1, 1982.
    B. In the Southeast Desert Air Basin portion of Riverside County:
        i. 500 ppm by volume for equipment which is issued a permit to construct or permit to operate after July 1, 1982.
        ii. 1,500 ppm by volume until January 1, 1984, and 500 ppm by volume thereafter for equipment that has been issued a permit to construct or permit to operate prior to July 1, 1982.

(b) The provisions of this rule shall not apply to emissions from:

1. Stationary internal combustion engines.
2. Propulsion of mobile equipment.
3. Emergency venting due to equipment failure or process upset.

(c) The provisions of subsection (a)(2) of this rule shall not apply to:

1. Equipment which is subject to the emission limits and requirements of source specific rules in Regulation XI.
2. Equipment which complies with the gaseous fuel sulfur content
3. limits of Rule 431.1.

[SIP: Approved 11/10/82 47 FR 50864, 40 CFR 52.220(c)(124)(iv)(A); Approved 9/8/76, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C); Approved 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(32)(iv)(A)]

ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

RULE 408
Circumvention
(Adopted : 05/07/76)

A person shall not build, erect, install, or use any equipment, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the Health and Safety Code or of these rules. This rule shall not apply to cases in which the only violation involved is of Section 48700 of the Health and Safety Code, or Rule 402 of these Rules.

[SIP: Approved 9/8/76, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C); Approved 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(32)(iv)(A)]

ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

RULE 409
Combustion Contaminants
(Adopted: 04/07/76; Amended: 08/07/81)

A person shall not discharge into the atmosphere from the burning of fuel, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO2) at standard conditions averaged over a minimum of 15 consecutive minutes.

The provisions of this rule shall not apply to jet engine test stands and emissions from internal combustion engines.

[SIP: Approved 7/6/82, 47 FR 29231, 40 CFR 52.220(c)(103)(xviii)(A); Approved 9/8/76, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C); Approved 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(32)(iv)(A)]

(**Adopted**: 11/04/77; **Amended:** 09/01/78; **Amended**: 02/02/79; **Amended** 01/08/82; **Amended**: 05/06/83; **Amended** 05/04/90; **Amended:** 04/05/91; **Amended**: 09/11/92; **Amended**: 10/02/92; **Amended**: 11/17/95; **Amended**: 08/21/12)

RULE 431.1
Sulfur Content of Gaseous Fuels

(A) General

(1) Purpose

(a) The purpose of this rule is to reduce sulfur oxides (SO_x) emissions from the burning of gaseous fuels in stationary equipment.

(2) Applicability

(a) The provisions of this rule shall apply to any burning, transferring, selling or the offering for sale of any gaseous fuels containing sulfur compounds in excess of 16 parts per million by volume (ppmv), calculated as hydrogen sulfide (H_2S), in stationary equipment requiring a Permit to Operate (PTO) by the Antelope Valley Air Quality Management District (District).

(B) Definitions

(1) "Air Pollution Control Officer" (APCO) – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

(2) "Authority to Construct Permit" (ATC) – A District permit required pursuant to the provisions of District Rule 201 which must be obtained prior to the building, erecting, installation, alteration or replacement of any Permit Unit. Such permit may act as a temporary PTO pursuant to the provisions of District Rule 202.

(3) Burn – To combust any gaseous fuel, whether for useful heat or by incineration without heat recovery, except for flaring of emergency vent gases.

(4) "California Air Resources Board" (CARB) – The California State Air Resources Board the powers and duties of which are described in Part 2 of Division 26 of the California Health & Safety Code (commencing with section 39500).

(5) Continuous Emission Monitoring System (CEMS) – A system of equipment that continuously measures and records all parameters necessary to directly determine

concentrations and/or mass emissions of selected pollutants, and which meets all of the requirements of Attachment A, Section II.

(6) Continuous Fuel Gas Monitoring System" (CFGMS) – A system of equipment that continuously measures and records total sulfur concentration in the gaseous fuel prior to burning, and which meets all the requirements of Attachment A, Section I.

(7) "Continuous Monitor" – a CEMS or CFGMS.

(8) Daily Average – An arithmetic mean of all of a facility's sulfur compounds readings within a calendar day obtained according to the guideline specified in Attachment A.

(9) "District" – The Antelope Valley Air Quality Management District, the geographical area of which is described in District Rule 103.

(10) Emergency Vent Gas – Any gas released from a process unit as a result of any process upset or breakdown.

(11) Gaseous Fuel – Any gaseous material which releases heat when burned including, but not limited to, any natural, refinery, field produced, process, synthetic, landfill, sewage digester, or waste gases with a gross heating value of 2670 kilocalories per cubic meter (300 BTU per cubic foot) or higher, at standard conditions.

(12) Landfill Gas – Any gas derived through any biological process from the decomposition of organic waste buried within a waste disposal site.

(13) Monthly Weighted Average Sulfur Content – The result of the summation of average daily sulfur contents of the fuel(s) consumed multiplied by the average daily consumption rates of the fuel(s) consumed in any month divided by the total gaseous fuel consumption rate for that month.

(14) Natural Gas – A mixture of gaseous hydrocarbons, with at least 80 percent methane (by volume), and of pipeline quality, such as the gas sold or distributed by any utility company regulated by the California Public Utilities Commission.

(15) "Permit to Operate" (PTO) – A District permit required pursuant to the provisions of District Rule 203 which must be obtained prior to operation of a Permit Unit. An ATC may function as a temporary PTO pursuant to the provisions of District Rule 202.

(16) Refinery Gas – Any combustible gaseous by-product generated from a petroleum refinery process unit operation, with a gross heating value of 2670 kilocalories per cubic meter (300 BTU per cubic foot) or higher, at standard conditions.

(17) Sewage Digester Gas – Any gas derived from anaerobic decomposition of organic sewage within its containment.

(18) "South Coast Air Quality Management District" – The air quality district created pursuant to Division 26, Part 3, Chapter 5.5 of the California Health & Safety Code (commencing with §40400).

(19) Standard Conditions – The atmospheric state where the temperature is 60°F and barometric pressure is 14.7 pounds per square inch absolute.

(20) Stream Day – Any day or part of a day when a facility or a process unit is in operation.

(21) "United States Environmental Protection Agency" (USEPA) - The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(C) Requirements

(1) Natural gas

A person shall not sell or offer for sale for use in the jurisdiction of the District natural gas containing sulfur compounds, calculated as H_2S, in excess of 16 parts per million by volume (ppmv).

(2) Other Gaseous Fuels

A person shall not burn in equipment requiring a PTO, purchase, transfer, sell or offer for sale for use in the jurisdiction of the District, any gaseous fuel containing sulfur compounds, calculated asH_2S, in excess of the concentration limits as measured over the averaging periods for various gaseous fuels as specified in Table 1.

TABLE 1

Fuel Type	Sulfur Limits ppmv	Averaging Periods
Refinery Gas	40	4 hrs
Landfill Gas	250	Daily
Sewage Digester Gas	40 or	Daily or
	40 and 500	Monthly and 15-minutes
Other Gases	40	4 hrs

(3) Previously Exempt or Previously Compliant Facilities

A person burning gaseous fuel containing sulfur compounds in excess of the limits specified in Table 1 and whose facility had been previously exempt from this rule pursuant to subsection (G)(6); or any person who, without the use of any sulfur removal or control system, had been previously in compliance with the limits specified in Table 1, shall:

(a) Submit for approval by the APCO within 30 days from the time of exceedance or non-compliance, a plan to demonstrate compliance with the requirements of the rule;

(b) Submit to the APCO an application for a fuel gas control system within six months of the time of exceedance of the exemption criteria specified in subsection (G)(6), or non-compliance with the limit;

(c) Demonstrate compliance with the limit specified in Table 1 no later than 18 months after the time of exceedance; and

(d) Comply with subsections (D)(1) and (D)(2), or (D)(3).

(D) Monitoring Requirements

(1) Except as provided in subsection (D)(3), a person burning gaseous fuels, other than exclusively natural gas, in stationary equipment requiring a PTO by the District shall have a properly operating continuous fuel gas monitoring system (CFGMS) to determine the sulfur content, calculated as H_2S, of the fuel gas prior to burning, or a continuous emission monitoring system (CEMS) to determine SO_x emissions after burning. All continuous monitors, require District approval, which shall be based on the requirements as specified in Attachment A.

(a) A person shall install the CFGMS upstream of any mixing of refinery gases with natural gas, propane or other fuels.

(b) A person subject to subsection (C)(3) of this rule shall comply with subsections (D)(1) and (D)(2) no later than twelve months after the date an ATC is issued by the District for a sulfur removal system or comply with subsection (D)(3).

(c) Compliance with the Table 1 sulfur limits shall be determined based on readings obtained from an approved Continuous Monitor.

(2) A person installing a Continuous Monitor shall submit to the District for approval, a quality assurance procedure as specified in USEPA 40 CFR Part 60, Appendix F, Procedure 1 for CEMS and, as applicable, for CFGMS.

(a) The quality assurance procedure specified above shall be submitted to the District for written approval by the APCO prior to the CFGMS or CEMS final certification.

(b) Any CFGMS or CEMS deemed to be out of control, as specified in Attachment A, according to the facility quality assurance procedure approved by the APCO shall be corrected within 72 hours.

(i) The person operating the CFGMS or CEMS shall notify the APCO by telephone or facsimile of any breakdown(s) of the monitoring systems if the duration of the breakdown is in excess of 60 minutes or if there are three (3) or more breakdowns in any one day within 24 hours of the occurrence of the breakdown which triggers notification. Such report shall identify the time, location, equipment involved, and contact person.

(ii) The person who complies with the provisions of subsection (D)(2)(b)(i) and subsection (E) (3) shall not be considered in violation of this rule for the 72 hour period of breakdown provided that the breakdown did not result from operator error, neglect or improper operation or maintenance procedures.

(3) A person burning landfill gas or sewage digester gas, or who is subject to subsection (C)(3) of this rule may use an alternative monitoring method, in lieu of the requirements in subsections (D)(1) and (D)(2), that ensures compliance with the daily total sulfur content limitation as specified in Table 1. Alternative monitoring methods shall not be used unless first approved in writing by the APCO, the California Air Resources Board (CARB), and the Regional Administrator of the Environmental Protection Agency (EPA), Region IX, or their designees.

(a) At a minimum, the alternative monitoring method shall meet the guidelines of Attachment A, Section III.

(b) A person subject to subsection (C)(3) of this rule shall submit an alternative monitoring method for approval no later than 45 days after the date an ATC for a sulfur removal system is issued.

(c) All monitoring must comply with the approved alternative monitoring method.

(d) District personnel shall use the approved alternative monitoring method to determine compliance with the limits of this rule.

(E) Reporting and Recordkeeping Requirements

(1) All records required by this rule shall be maintained at the facility for at least five (5) years, and be made available to District staff upon request.

(2) Except at electric utility generating facilities and refineries, a person burning gaseous fuel, other than exclusively natural gas, in stationary equipment requiring a PTO, shall submit to the APCO annual reports of the monthly fuel consumption and the total sulfur content of the fuel consumed. The annual report shall be submitted no later than 60 days following the end of the reporting year, and shall consist of the amount of any gaseous fuel consumed monthly, the applicable hourly, daily or monthly average sulfur content as determined by the Continuous Monitor or approved alternative monitoring method as specified in subsections (D)(1), (D)(2), or (D)(3) of this rule, and total SO_x emissions, calculated as SO_2.

(3) A person burning gaseous fuel in stationary equipment located at electric utility generating facilities or refineries shall submit to the APCO monthly reports of the daily fuel consumption, the monthly weighted average sulfur content (except for natural gas), and the maximum four (4)-hour average sulfur content of the fuel consumed, as determined by the device specified in subsection (D)(2) of this rule and the total SO_x emissions, calculated as SO_2. The report shall be submitted no later than 30 days following the end of the reporting month.

(4) The person operating a continuous monitor shall keep records as specified in clause (D)(2)(b)(i) for monitor breakdown (s)

(F) Test Methods

The following may be used by the APCO to verify compliance with the provisions of this rule:

(1) For determination of compliance with sulfur content requirements of section (C):

(a) The reference method for determining the concentration of sulfur compounds in a gaseous fuel, calculated as H_2S, shall be South Coast Air Quality Management District (SCAQMD) Method 307-91 - Determination of Sulfur in a Gaseous Matrix, or any other method demonstrated by the applicant to be equivalent and approved in writing by the APCO, the CARB, and the Regional Administrator of the EPA, Region IX, or their designees, or

(b) Data obtained from a continuous monitor, which is required to be installed and properly operated according to section (D) and as approved by the APCO pursuant to the requirements specified in Attachment A.

(2) The gross heating value of gaseous fuels shall be determined by ASTM Method D 3588-91 or, if applicable, ASTM Method D 4891-89.

(3) The methane content of gaseous fuels shall be determined by ASTM Method D 1945-81.

(G) Exemptions

Unless otherwise specified, and provided that the person seeking the exemption supplies proof and verification upon request of applicable criteria to the satisfaction of the APCO, the provisions of this rule shall not apply to the following:

(1) A person selling, for use in the jurisdiction of the District, any gaseous fuel not complying with subsections (C)(1) and (C)(3) provided that:

(a) The gaseous fuel is delivered directly to a sulfur removal unit which is in full operation and which reduces the sulfur content to the limits specified in subsections (C)(1) and (C)(3);

(b) The seller notifies the APCO prior to any such sale of the quantity, heating value, and composition of the gaseous fuel to be sold; and

(c) The buyer has an approved ATC and/or PTO for the sulfur removal unit that will be used to treat the purchased gas.

(2) Gaseous fuels containing sulfur used in the production of sulfur or sulfur compounds.

(3) Waste gases being burned provided that:

(a) The gross heating value of such gases is less than 2670 kilocalories per cubic meter (300 British Thermal Units per cubic foot) at standard conditions; and

(b) Any supplemental fuel used to burn such waste gases does not contain sulfur or sulfur compounds in excess of the amount specified in this rule.

(4) Gases vented to a control system pursuant to District Rule1173.

(5) Gases vented intermittently to fuel gas or waste disposal system from pressure control valves, sight glasses, compressor bottles, sampling systems, and pump and compressor case vents.

(6) Any facility which emits less than five (5) pounds per day total sulfur compounds, calculated as H_2S, from the burning of gaseous fuels other than natural gas. Emissions of total sulfur compounds shall be measured based on fuel analysis, using the test method specified in subsection (F)(1), and the maximum daily gaseous fuel consumption. This exemption shall not apply to the requirement of subsection (C)(1).

(7) A person is exempt from the requirements of subsection (D)(1) if the person demonstrates to the satisfaction of the APCO that the supplier of the gaseous fuel has complied with the requirements of section (D) for such fuel.

(8) On or after July 1, 1997, a person previously in compliance with the limits specified in Table 1 of this rule shall be exempt from the requirements of subsection (C)(3) provided that: the alternative monitoring method pursuant to section (D) yields no more than three individual readings in a calendar year in excess of the limits specified in Table 1; that no single reading exceeds a fuel sulfur limit by 25 percent; and that the sampling frequency is no longer than once per week.

See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921

ATTACHMENT A

SECTION I
REQUIREMENTS FOR CONTINUOUS
FUEL GAS MONITORING SYSTEM (CFGMS)

A continuous fuel gas monitor used for determining the sulfur content of any gaseous fuel shall:

(1) Continuously monitor and record the concentration by volume (dry basis) of sulfur compounds in ppmv as H_2S in the gaseous fuel.
(2) Have the span value of the monitor set so that all readings fall between 20 and 95 percent of scale.
(3) Check for calibration drift of the monitoring system at least once daily (approximately 24-hr interval) at two concentrations, one high level and one low level. Whenever the daily high level or low level calibration drift exceeds 5% of analyzer full scale span, the monitoring system shall be deemed to be out of control and subject to the requirements of subsection (D)(2(b) of this rule.
(4) Determine the relative accuracy of the monitor which shall be no greater than 20 percent of the mean value of the reference method test data.
(5) Be able to record negative values of zero drift.
(6) Report the concentration of the sulfur compounds calculated as H_2S.

SECTION II
REQUIREMENTS FOR CONTINUOUS
EMISSIONS MONITORING SYSTEMS (CEMS)

A stack CEMS used for monitoring the sulfur dioxide emissions from the burning of any gaseous fuel shall:

(1) Continuously monitor and record the concentration by volume (dry basis, zero percent excess air) of sulfur compounds in ppmv as SO_2 emitted into the atmosphere;
(2) Include either an oxygen monitor for correcting the data for excess air or a fuel gas and exhaust gas flowmeter for the determination of mass emissions;
(3) Have the span value of all the monitors set so that all readings fall between 20 and 95 percent, for four-hour and daily averages, and between 10 and 95 percent, for monthly averages, of full scale;
(4) When using an oxygen monitor for the correction of excess air, be able to measure a sulfur compound concentration emission limit of 5 ppm (dry basis, zero percent excess air), which is stoichiometrically equivalent to the limit of sulfur compound content of 40 ppm calculated as hydrogen sulfide in the gaseous fuels;
(5) Use District Methods 100.1 or 6.1 (as applicable for sulfur compound analysis) and SCAQMD Method 3.1 (for oxygen content analysis), or SCAQMD Method 2.1 (for flowrate determination), whichever is applicable, or any other methods demonstrated by

the applicant to be equivalent and approved in writing by the APCO and the CARB, and the Regional Administrator of the EPA, Region IX, or their designees, for conducting the relative accuracy evaluations. The relative accuracy limit shall be 1 ppm and zero drift (2-hour and 24-hour) and calibration drift (2-hour and 24-hour) limits for sulfur compounds monitor shall be 5 percent of the span range; and

(6) Check for calibration drift of the monitoring system at least once daily (approximately 24-hr interval) at two concentrations, one high level and one low level. Whenever the daily high level or low level calibration drift exceeds 5% of analyzer full scale span, the monitoring system shall be deemed to be out of control and subject to the requirements of subsection (D)(2)(b) of this rule.

(7) Facilities burning fuel gas subject to this rule shall comply with the requirements of Rule 218 and 218.1(proposed) except where specific requirements have been incorporated into this rule.

SECTION III – GUIDELINES FOR APPROVAL OF ALTERNATIVE MONITORING PLAN BY THE APCO

In lieu of a continuous fuel gas monitoring system (CFGMS) or a continuous emission monitoring system (CEMS), a person subject to this rule may submit an alternative monitoring plan to the APCO, the California Air Resources Board (CARB), and the Regional Administrator of the Environmental Protection Agency (EPA), Region IX, or their designees. for their review and decision.

(1) A test program to determine the correlation between H_2S and total sulfur in the fuel gas using SCAQMD Method 307-91. If a correlation is established, a colorimetric test, or other alternative method approved by the APCO as being equivalent or better in establishing such correlation, may be conducted regularly to determine total sulfur using H_2S as a surrogate.

(2) An error analysis between colorimetric, or other approved alternative method readings and the total reduced sulfur analysis obtained from SCAQMD Method 307-91. To demonstrate equivalency between the two methods of analyses, the relative accuracy shall not exceed 20 percent of average SCAQMD Method 307-91 readings.

(3) A schedule for a daily or more frequent analysis of the fuel gas for H_2S using the colorimetric test, or other approved alternative method, and a minimum weekly analysis of the fuel gas using SCAQMD Method 307-91. A different frequency of analysis may be used if the APCO determines that such frequency will ensure compliance with the daily total sulfur limits of this rule.

(4) When the sulfur level is suspected to be at or above the sulfur content requirements of Table 1 as determined by the colorimetric or other alternative method, a procedure to obtain at minimum a daily sample to be tested according to SCAQMD Method 307-91 until three consecutive daily samples show that total sulfur is below the sulfur content requirements of Table 1.

1.25.79

Rule 431.2 Sulfur Content of Liquid Fuels — Revised October
Adopted Decemb

(a) A persons shall not burn any liquid fuel having a sulfur content in excess of 0.5 percent by weight.

(1) Effective June 1, 1979, a person shall not burn in refinery equipment any liquid fuel having a sulfur content in excess of 0.25 percent by weight except that:

(A) Existing supplies of fuel with a sulfur content of not more than 0.5 percent by weight owned, either in storage or in transit on the effective date of paragraph (a)(1) may be utilized until such supply is exhausted.

(B) Noncomplying fuel may be burned if the concentration of sulfur dioxide in stack gases is no more than would be present if liquid fuel with a sulfur content of not more than 0.25 percent by weight were burned.

(b) Steam Generators at Electric Power Plants

(1) No person shall burn liquid fuel with a sulfur content of more than 0.25 percent by weight in a steam generator at an electric power plant on or after March 1, 1977 except that:

(A) Existing supplies of fuel with a sulfur content of not more than 0.5 percent by weight owned, either in storage or in transit on the effective date of this subsection (b) may be utilized until such supply is exhausted.

(B) From March 1, 1977, to July 1, 1978, if sufficient amounts of fuel with a sulfur content of not more than 0.25 percent by weight available on a regularly scheduled future need basis, fuel with a sulfur content of not more than 0.5 percent by weight may be substituted for only such portion of a person's requirements for which fuel with a sulfur content of not more than 0.25 percent by weight is not available.

(C) Noncomplying fuel may be burned if the concentratio of sulfur dioxide in stack gases is no more than would be present if liquid fuel with a sulfur content of not more than 0.25 percent were burned..

(2) Persons burning liquid fuels in steam generators at electric power plants shall submit to the Executive Officer, within thirty calendar days from the beginning of each month, a tabulation of the amount of liquid fuel burned at each of such person's power plants on each day of the preceding month, also listing, for each day, the average sulfur content of the fuel burned each day. If noncomplying fuel was burned a statement of the efforts made to obtain liquid fuel with a sulfur content by weight of 0.25 percent shall be submitted under penalty of perjury.

(c) The provisions of this rule shall not apply to:

(1) The burning of liquid sulfur compounds used in the manufacturing of sulfur or sulfur compounds.

(2) The use of liquid fuels where the gaseous products of combustion are used as raw materials for other processes.

(3) The use of liquid fuel to propel or test any vehicle, aircraft, locomotive, boat or ship.

(4) The use of a liquid fuel with higher sulfur content where process conditions or control equipment remove sulfur compounds from the stack gases to the extent that the emission of sulfur compounds into the atmosphere is no greater than that which could be emitted by using a fuel which complies with the provisions of this rule.

431.2

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(c) (5) The use of liquid fuel at remote pipeline pumping stations where the Executive Officer determines that conditions do not allow the use of alternate fuels, pollution control equipment, or electric equipment; provided that the increased emissions from operation under this exemption, if any, are compensated by a reduction of at least twice such increased emissions at other locations within the Air Basin in which such pumping station is located.

7/25/79

Rule 431.3 Sulfur Content of Fossil Fuels

(a) A person shall not burn any solid fossil fuel having a sulfur content which will emit more than 0.56 pounds of sulfur dioxide (SO_2) per million BTU.

(b) The provisions of this rule shall not apply to:

(1) The burning of solid sulfur compounds in the manufacturing of sulfur or sulfur compounds.

(2) The use of solid fossil fuels in any metallurgical process.

(3) The use of any solid fossil fuel where the gaseous products of combustion are used as raw materials for other processes.

(4) The use of solid fossil fuel to propel or test any vehicle, locomotive, boat or ship.

(5) The use of a solid fossil fuel with higher sulfur content where process conditions or control equipment remove sulfur compounds from stack gases to the extent that the emission of sulfur compounds into the atmosphere is no greater than that which could be emitted by using a fuel which complies with provisions of this rule.

(c) Solid Fossil Fuel

For the purpose of this rule "Solid Fossil Fuel" means coal, or any form of solid fuel derived from fossil materials, for the purpose of creating useful heat.

8/2/76

RULE 432. Gasoline Specifications

A person shall not sell or supply for use within the District as a fuel for motor vehicles as defined by the Vehicle Code of the State of California, gasoline having a degree of unsaturation greater than that indicated by a Bromine Number of 30 as determined by ASTM Method D1159-66.

12/29/75

(**Adopted:** 05/07/76; **Amended:** 9/02/77; **Amended:** 03/03/78; **Amended:** 07/06/79; **Amended:** 03/05/82 **Amended:** 11/15/05)

Rule 442
Usage of Solvents

(A) General

(1) Purpose

(a) To reduce volatile organic compound (VOC) emission from VOC containing materials or equipment which is not subject to VOC limits of any rule found in District Regulation XI – *Source Specific Standards*.

(b) To provide emissions limits for the use of non-VOC organic solvents.

(2) Applicability

(a) This rule applies to any person using VOC containing materials or Emissions Unit which is not subject to the VOC limits of any other rule found in District Regulation IV – *Prohibitions* or in any rule found in the District Regulation XI – *Source Specific Standards*.

(i) VOC containing materials include, but are not limited to; coatings, resins, adhesives, inks, solvents, thinners, diluents, mold seal and release compounds, lubricants, cutting oils and quenching oils.

(b) This rule applies to any person using an organic solvent which is not a VOC and which is not subject to the limits of any other rule found in District Regulation IV – *Prohibitions* or in any rule found in District Regulation XI – *Source Specific Standards*.

(B) Definitions

For the purpose of this rule the following definitions shall apply:

(1) Aerosol Product – A hand held, non-refillable container that expels pressurized materials by means of a propellant-induced force.

(2) California Air Resources Board (CARB) - The California State Air Resources Board the powers and duties of which are described in Part 2 of Division 26 of the California Health & Safety Code (commencing with section 39500).

(3) District - The Antelope Valley Air Quality Management District the geographical area of which is described in District Rule 103.

(4) Emissions Unit – Any article, machine, equipment contrivance or combination thereof which emits or has the potential to emit any Regulated Air Pollutant.

(5) Facility – Any structure, building, Emissions Unit, combination of Emissions Units or installation which emits or may emit a Regulated Air Pollutant and which are:

(a) Located on one or more contiguous or adjacent properties within the District;

(b) Under the control of the same person (or by persons under common control);

(c) Belong to the same industrial grouping, as determined by being within the same two digit Standard Industrial Classification Code (SICC).

(d) For the purpose of this Rule, such above-described grouping, remotely located but connected only by land carrying a pipeline, shall not be considered one Facility.

(6) Regulated Air Pollutant – Any of the following:

(a) Any air pollutant and its precursors for which an Ambient Air Quality Standard has been promulgated.

(b) Any air pollutant that is subject to a standard under 42 U.S.C. §7411, Standards of Performance for New Stationary Sources (Federal Clean Air Act §111) or the regulations promulgated thereunder.

(c) Any substance which has been designated a Class I or Class II substance under 42 U.S.C. §7671a (Federal Clean Air Act §602) or the regulations promulgated thereunder.

(d) Any air pollutant subject to a standard or other requirement established pursuant to 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §1112) or the regulations promulgated thereunder.

(7) South Coast Air Quality Management District (SCAQMD) – The local air district created pursuant to Division 26, Part 3, Chapter 5.5 of the Health & Safety Code (commencing with §40400).

(8) United States Environmental Protection Agency (USEPA) - The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(9) Volatile Organic Compound (VOC) – Any volatile compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and those compounds listed in 40 CFR 51.1100(s)(1).

(C) Requirements

(1) Emission Limitations

(a) A person shall not discharge VOCs into the atmosphere from all VOC containing materials, Emissions Units, equipment or processes subject to this rule, in excess of 540 kilograms (1,190 pounds) per month per Facility.

(i) Compliance with the provisions of subsection (C)(1)(a) above may be obtained through use of any of the following or any combination thereof:

a. Product reformulation or substitution;
b. Process changes;
c. Improvement of operational efficiency;
d. Development of innovative technology;
e. Installation of a control device operated in accordance with section (C)(2) below.

(2) Control Equipment

(a) A person may comply with the provisions of (C)(1) above by using a VOC emission collection and control system that reduces overall emissions by eighty-five percent (85%) as follows:

(i) The system shall capture at least ninety percent (90%), by weight, of the emissions generated by the Emissions Unit, material or operation and

a. Have a destruction efficiency of at least ninety-five percent (95%), by weight; or
b. Have an output of less than fifty parts per million(50 PPM) calculated as carbon with no dilution.

(3) Storage and Disposal

(a) All VOC containing materials subject to this rule, whether in its form for intended use or as a waste or used product, shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times, except when filling or emptying, and disposed of in a manner to prevent evaporation of VOCs into the atmosphere at the Facility.

(D) Exemptions

(1) The provisions of this rule shall not apply to:

(a) The manufacture, transport or storage of organic solvents, or the transport or storage of materials containing organic solvents.

(b) The emissions of VOCs from VOC-containing materials or equipment which are subject to other Regulation IV rules (excluding Rule 481 – Spray Coating Operations) or which are exempt from air pollution control requirements by such rules.

(c) The use of pesticides including insecticides, rodenticides or herbicides.

(d) The use of 1,1,1 trichloroethane, methylene chloride and trichlorotrifluroethane.

(e) Aerosol products

(E) Monitoring, Recordkeeping and Reporting

(1) Usage records for all VOC-containing materials subject to this Rule shall be maintained pursuant to Rule 109.

(2) Such records shall be retained for two years and shall be made available upon request.

(F) Test Methods

(1) For the purpose of this rule, the following test methods shall be used:

(a) Determination of VOC Content in Solvent-containing materials

(i) The VOC content of VOC-containing materials subject to the provisions of this rule shall be determined by USEPA Reference Method 24 (Code of Federal Regulations, Title 40, Part60, Appendix A).

(ii) The exempt compounds' content shall be determined by SCAQMD Method 303 - *Determination of Exempt Compounds* or Method 304 - *Determination of Volatile Organic Compounds (VOC) in Various Materials* contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(iii) The following classes of Exempt Perfluorocarbon compounds: 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 sulfur bonds only to carbon and fluorine, will be analyzed as exempt compounds for compliance with Section (C)(1), only when manufacturers specify which individual compounds are used in the solvent formulation

and identify the USEPA, CARB, and the District approved test methods used to quantify the amount of each exempt compound.

(b) Determination of Presence of VOC in Clean-up Materials

(i) The presence of VOC in the headspace over the cleaning material shall be determined by SCAQMD Method 313 - Determination of Volatile Organic Compounds (VOC) by Gas Chromatography/Mass Spectrometry (GC/MS) as contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(c) Determination of Efficiency of Emission Control Systems

(i) The capture efficiency of the capture system for purposes of determining overall efficiency shall be determined by verifying the use of a permanent total enclosure and 100% capture efficiency as defined by USEPA Method 204 - *Criteria for and Verification of a Permanent or Temporary Total Enclosure*."

(ii) Alternatively, if a USEPA Method 204 defined permanent total enclosure is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the USEPA *Guidelines for Determining Capture Efficiency*, January 9, 1995."

(iii) Individual capture efficiency test runs subject to the US EPA technical guidelines shall be determined by the Temporary Total Enclosure approach of USEPA Methods 204 through 204F.

(iv) The control device efficiency of an emission control system on a mass emissions basis and the VOC concentrations in the exhaust gases, measured and calculated as carbon, shall be determined by US EPA Test Methods 25, 25A, SCAQMD Method 25.1 - *Determination of Total Gaseous Non-Methane Organic Emissions as Carbon*, or SCAQMD Method 25.3 – *Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources*, as applicable.

(v) USEPA Test Method 18, or CARB Method 422 shall be used to determine emissions of exempt compounds.

(vi) The overall efficiency of an emission <u>collection and</u> control system shall be determined using the following equation (all efficiencies expressed in percent):
Overall Efficiency
= (Capture Efficiency) x (Control Device Efficiency) / 100

(d) Any other applicable test methods approved by CARB, the USEPA, and the District.

(2) Multiple Test Methods

(a) When more than one test method or set of test methods are specified for any testing, the application of these methods to a specific set of test conditions is subject to approval by the Air Pollution Control Officer.

(3) All test methods referenced in this section shall be the most recent version as approved by USEPA.

(4) 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 the rule.

[SIP: Approved 11/16/83, 48 FR 52054, 40 CFR 52.220(c)(125)(ii)(D); Approved 9/28/81, 46 FR 47451, 40 CFR 52.220(c)(58)(ii)(B); Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C)]

8/2/76

RULE 443 LABELING OF SOLVENTS

(a) A person shall not sell or offer for sale for use in the District, in containers of 0.94 liter (one quart) capacity or larger, any organic solvent or material containing organic solvent unless it is clearly and correctly indicated on the container whether the solvent is photochemically reactive in accordance with the definition in Rule 102. This requirement may be satisfied by affixing a sticker or label to the container which sets forth this information.

(b) A person shall not sell or offer for sale for use in the District, in containers of 150 liters (40 gallons) capacity or larger, any organic solvent unless the total percentage by volume of the solvents listed under the definition of photochemically reactive solvent in Rule 102 is clearly and correctly indicated on the container. This requirement may be satisfied by affixing a sticker or label to the container which sets forth this information.

(c) When such materials are sold in bulk, the information required in subsections (a) and (b) must appear on the invoice in lieu of the container, and a copy of the invoice must be made available for inspection by District personnel. (For the purposes of this subsection only, materials sold in bulk shall be considered to be materials which are transferred from a delivery container into a storage container located on the premise of the user or processor.)

(d) The provisions of this rule shall not apply to architectural coatings, materials registered by the USDA as insecticides, pesticides and herbicides and materials primarily used as fuels.

(e) This rule becomes effective on January 1, 1977.

(**Adopted:** 10/08/76; **Amended:** 10/02/81; **Amended**: 10/02/87; **Amended**: 02/19/08)

RULE 444
Open Outdoor Fires

(A) General

(1) Purpose

(a) The purpose of this Rule is to ensure that the ambient air quality is not significantly degraded due to Open Outdoor Fires; and,

(b) To apply the District Smoke Management Program to specified applications while minimizing smoke impacts to the public.

(2) Applicability

(a) The requirements of this Rule shall apply to persons that set and/or permit Open Outdoor Fires, including, but not limited to Tumbleweed burning, Agricultural Burning, field crop burning, Range Improvement Burning, Forest Management Burning, and Wildland Vegetation Management Burning.

(B) Definitions

For the purposes of this Rule, the following definitions shall apply:

(1) "Agricultural Burning" – Open Outdoor Fires used in Agricultural Operations, including the burning of Agricultural Wastes, or Open Outdoor Fires used in disease and pest prevention. Agricultural Burning also includes Open Outdoor Fires used in the operation or maintenance of a system for the delivery of water in Agricultural Operations.

(2) "Agricultural Operations" – Any operation occurring on a ranch or farm directly related to the growing of crops or raising of fowls or animals for the primary purpose of making a profit, for a livelihood, or for conducting agricultural research or instruction by an educational institution.

(3) "Agricultural Wastes" – Unwanted or unsalable materials produced wholly from Agricultural Operations, including forest management or range management operations, wildland vegetation management burning, and prescribed burning. Agricultural Wastes do not include pesticide and fertilizer containers, except sacks, burned in the field where they were emptied. Agricultural Wastes do not include broken boxes, pallets, sweat boxes, packaging material, packing boxes, or

any other materials produced in the packing or processing of agricultural products.

(4) "Air Pollution Control Officer" (APCO) – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

(5) "Approved Ignition Devices" – Those instruments or materials that will ignite combustible material without the production of black smoke by the ignition device. This would include such items as liquid petroleum gas, butane, propane, and flares where the device produces a flame and the flame is then used for ignition. For the purposes of igniting Prescribed Burns, heli-torch, terra-torch, drip-torch, and the equivalent ignition devices and methods will be considered approved ignition devices.

(6) "California Air Resources Board (CARB)" – The California State Air Resources Board, the powers and duties of which are described in Part 2 of Division 26 of the California Health and Safety Code (commencing with §39500).

(7) "Designated agency" – Any agency designated by the CARB as having authority to issue agricultural burning, including prescribed burning, permits. The United States Department of Agriculture Forest Service and Cal Fire are so designated within their respective areas of jurisdiction.

(8) "Forest Management Burning" – The use of Prescribed Burning, as part of a forest management practice, to remove forest debris. Forest management practices include Timber Operations, Silvicultural practices, and forest protection practices.

(9) "Imminent and Substantial Economic Loss" – The loss of a planting season or the irreparable harm of a crop.

(10) "Marginal Burn Day" – a day when limited amounts of agricultural burning, including prescribed burning, for individual projects in specific areas for limited times is not prohibited by the state board and burning is authorized by the District consistent with these Guidelines.

(11) "No-Burn Day" – Any day on which agricultural burning, including prescribed burning, is prohibited by the state board or the air district in which the burning will occur.

(12) "Open Outdoor Fire" – Any combustion (including detonation) of combustible material of any type outdoors in the open, not in any enclosure, where the products of combustion are not directed through a flue, except: any outdoor fire burned according to an existing District permit, blasting operations permitted by the California Occupational Safety and Health Administration, and detonation associated with military operations.

(13) "Permissive Burn Day" or "burn day" – Any day on which agricultural burning, including prescribed burning, is not prohibited by the state board and burning is authorized by the District consistent with these Guidelines.

(14) "Prescribed Burning" – The planned application of fire, including natural or accidental ignition, to vegetation to achieve any specific objective on lands selected in advance of that application.

(15) "Range Improvement Burning" – The use of Prescribed Burning to remove vegetation for a wildlife, game or livestock habitat, or for the initial establishment of an agricultural practice on previously uncultivated land.

(16) "Silviculture" – The establishment, development, care, and reproduction of stands of timber.

(17) "Smoke Management Plan" – A document prepared for each fire in accordance with the Smoke Management Program.

(18) "Smoke Management Program" – The most recent version of the program required by Title 17 of the California Code of Regulations §§80100-80330 and adopted by the APCO.

(19) "Timber Operations" – The cutting or removal of timber or other forest vegetation for the purpose of producing commercial forest products.

(20) "Tumbleweeds" – Russian thistle (*Salsola kali*).

(21) "Wildland Vegetation Management Burning" – The use of Prescribed Burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral (as defined in Title 14, CCR, §1561.1), trees, grass, or standing brush.

(C) Requirements

(1) A person shall not conduct or allow open burning:

(a) Unless the Executive Officer has declared the day as a permissive burn day and such burning is not prohibited by a public fire protection agency; and

(b) Without first obtaining a written permit from the Executive Officer, unless the applicable fire protection agency has issued a permit for the burn; and

(c) Without first receiving authorization from the Executive Officer for each day for each open burning event.

(2) All burn projects greater than 10 acres in size or estimated to produce more than 1 ton of particulate matter shall be conducted in accordance with the provisions of the Smoke Management Program.

(3) Except as otherwise provided for in this Rule, no person shall set, permit, or use an Open Outdoor Fire for the purpose of disposal or burning of petroleum wastes; asbestos; treated wood; demolition or construction debris; residential rubbish; garbage or vegetation; tires; tar; trees; wood waste; or other combustible or flammable solid, liquid or gaseous waste; or for metal salvage or burning of motor vehicle bodies.

(4) A person shall not set or permit an Open Outdoor Fire for Agricultural Burning when prohibited by District Rule 701 or in any geographic area when CARB or the APCO (or the local fire protection agency, in the case of an existing burn permit) prohibits burning in that area due to adverse meteorological conditions (No-burn day), unless such burning is required to alleviate an Imminent and Substantial Economic Loss and the total area burned within the District on that day does not exceed 200 acres. Any such burning must be authorized in a special burn permit issued by the District and not by the designated agency.

(5) Upon request from a permittee through a designated agency, seven days in advance of a specific Prescribed Burn, a permissive-burn, marginal-burn, or no-burn forecast will be issued by CARB up to 48 hours prior to the date scheduled for the burn. Without further request, a daily forecast will continue to be issued until a permissive-burn or marginal-burn forecast is issued.

(6) CARB shall, for each geographic area, determine meteorological conditions which will cause Open Outdoor Fires to have an adverse effect on the ambient air quality in that area. A list of the geographic areas and specific meteorological conditions for each area shall be maintained at the District offices and shall be made available to the public. The APCO or the Designated Agency may use more restrictive meteorological criteria than designated in Title 17 §80311

(7) A person shall not burn or permit the burning of combustible material in an Open Outdoor Fire, except for Prescribed Burns done in accordance with an approved Smoke Management Plan, unless such combustible material:

(a) Is ignited as rapidly as practical using Approved Ignition Devices within applicable fire control restrictions;

(i) Field crops shall be ignited only by strip firing into the wind or by backfiring, except where crops are determined not to lend themselves to such ignition;

(b) Has been stacked or piled in such a manner as to promote drying and insure combustion with a minimum of smoke production, and has dried sufficiently to ensure rapid combustion (unless agricultural or Silvicultural practices dictate otherwise). Minimum drying times are:

(i) One week for wastes from field crops that are cut in green condition;
(ii) Zero days for dry cereals; or
(iii) Three weeks for prunings and small branches (less than two inches in diameter);
(iv) Six weeks for large branches and stumps (greater than two inches in diameter);
(v) One week for other materials.

(c) Is free of tires, oil filters, rubber, tar paper, plastics, shop wastes, asbestos, treated wood, demolition debris, construction debris and other rubbish, and is reasonably free of dirt, soil and visible surface moisture; and,

(d) Is burned during daylight hours, with no ignition prior to 6 a.m. and with all combustion extinguished within one hour of sunset.

(8) A person shall not set or permit an Open Outdoor Fire without first obtaining a written permit for such burning from the local fire protection agency, and such burning shall be conducted in accordance with that agency's fire laws and regulations. Such permit shall have form and content approved by the APCO, as required by District Rule 208. Such permit may be granted only for any of the following reasons:

(a) Where a fire hazard, to life or property, is declared by the local fire protection agency and such fire hazard cannot be abated by any other means;

(b) For Agricultural Burning;

(c) For disposal of Tumbleweeds (*Salsola kali*);

(d) For the burning of infectious waste other than hospital waste upon order of the County Health Officer to abate a public health hazard;

(e) For the burning of dry cotton gin waste or other diseased agricultural wastes infected with an agricultural pest hazardous to nearby agricultural operations and upon order of the County Agricultural Commissioner;

(9) An approved burn permit must be obtained from the AVAQMD in advance of any burning of brush cuttings resulting from brush clearance done in compliance with local ordinances to reduce fire hazard. It is required that the approved burning occur on the property where the brush cuttings originated.

(10) Land development burning for the purpose of disposing of wood waste from trees, vines, or bushes must occur on the property where the wood waste originated for the following reasons:

(a) If the Executive Officer finds it more desirable to dispose of such waste by burning than to dispose of it by other available means, such as, but not limited to, by removing it to sanitary fills;

(b) Such waste may only be burned on days during which agricultural burning is not prohibited;

(c) Obtain a District approved burn permit.

(11) Notwithstanding the provisions of section (C)(8), a person may burn or permit an Open Outdoor Fire for any of the following purposes, provided such fire is set by, or under the jurisdiction of, a designated fire agency having jurisdiction over the proposed burn location(s), the total area burned with Prescribed Burns within the District does not exceed 1,000 acres in any one day, and a valid burn permit has been issued, or a Smoke Management Plan has been approved, by the District.

(a) For the instruction of employees in the methods of fighting fires;

(b) For Forest Management, Range Improvement or Wildland Vegetation Management Burning, provided the fire is a Prescribed Burn performed in accordance with an approved Smoke Management Plan; and

(c) For research or filming purposes.

(D) Exemptions

(1) The requirements of this Rule shall not apply to:

(a) Backfires necessary to save life or valuable property pursuant to the Public Resources Code (§4426) set by, or under the jurisdiction of a fire protection agency, and the ignition devices used to set such backfires;

(b) Recreational fires, ceremonial fires, and cooking fires, where the combustible material is clean, dry wood or charcoal;

(2) The notification requirement given in Section (E)(2) shall not apply to instructional fires solely involving the combustion of propane or natural gas.

(3) The area limit in Section (C)(11) shall not apply if the following information is provided to the APCO for review and approval thirty (30) days in advance of the proposed Prescribed Burning:

(a) Location and specific objectives of the burning;

(b) Acreage, type, and arrangement of vegetation to be burned;

(c) Directions and distances to nearby sensitive receptor areas;

(d) Fuel condition, combustion, and meteorological prescription elements developed for the project;

(e) Projected schedule and duration of project ignition, combustion, and burn down;

(f) Specifications for monitoring and verifying of critical parameters;

(g) Specifications for disseminating project information; and

(h) Contingent suppression measures in case of public nuisance or exceedance of state or federal ambient air quality standard.

(E) Monitoring, Recordkeeping and Reporting

(1) The APCO shall receive a copy of any permit granted under Section (C)(8) within ninety (90) days of the issuance of such permit.

(2) The APCO shall be notified prior to burning conducted under the provisions of Section (C)(9), (C)(10), and (C)(11), by written means or a phone call received prior to the start of the burn.

[SIP: Submitted as amended 02/19/08 on mm/dd/yy; Submitted as amended 10/2/87 on 3/23/88; Approved 7/6/82, 47 FR 29231, 40 CFR 52.220(c)(104)(ii)(A); Disapproved, prior rules 57.1, 57.2, 57.3 and 57.4 retained 1/24/81, 46 FR 3883, 40 CFR 52.273(b)(7)(i); Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C)]

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(**Adopted:** 01/09/76; **Amended:** 09/03/76; **Amended:** 02/04/77; **Amended:** 11/18/77; **Amended:** 02/03/78; **Amended:** 01/05/79; **Amended:** 05/04/79; **Amended:** 12/07/79; **Amended:** 01/16/81; **Amended:** 10/15/82; **Amended:** 11/01/85; **Amended:** 03/04/88; **Amended:** 07/07/89; **Amended:** 09/08/95; **Amended:** 09/15/98; **Amended**: 10/21/08)

RULE 461
Gasoline Transfer and Dispensing

(A) General

(1) Purpose

(a) To reduce Volatile Organic Compounds (VOC) emissions from Gasoline Transfer and Dispensing.

(2) Applicability

(a) This rule applies to the transfer of Gasoline from any tank truck, trailer, or railroad tank car into any stationary storage tank or Mobile Fueler, and from any stationary storage tank or Mobile Fueler into any Mobile Fueler or Motor Vehicle fuel tank.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) Altered Gasoline Transfer and Dispensing Facility – A Gasoline Transfer and Dispensing Facility with any of the following:

(a) The removal or addition of storage tank(s), or changes in the number of Fueling Positions.

(b) The replacement of storage tank(s) or dispensing nozzle(s) with different characteristics or descriptions from those specified on the existing permit.

(2) Air Pollution Control Officer (APCO) – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

(3) Aspirator-assist System – A Phase II Vapor Recovery System that uses an aspirator to create a vacuum during Gasoline dispensing to capture Gasoline Vapors.

(4) Balance System – A Phase II Vapor Recovery System that operates on the principle of vapor displacement.

(5) Bellows-less Nozzle – Any nozzle that incorporates both an assist system and a Gasoline Vapor capture mechanism at the Motor Vehicle filler neck, such that vapors are collected at the vehicle filler neck without the need for an interfacing flexible bellows, and which is certified by the California Air Resources Board (CARB) for operation as a Bellows-less Nozzle.

(6) California Air Resources Board (CARB) – The California State Air Resources Board, the powers and duties of which are described in Part 2 of Division 26 of the California Health and Safety Code (commencing with §39500).

(7) "CARB Certified" Vapor Recovery System – 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.

(8) CARB Executive Orders – Orders published by CARB that document the requirements of specific vapor control equipment and procedures used in Phase I and Phase II Vapor Recovery Systems.

(9) Coaxial Hose – A hose that contains two passages with a configuration of a hose within a hose. One of the passages dispenses the liquid Gasoline into the vehicle fuel tank while the other passage carries the Gasoline Vapors from the vehicle fuel tank to the storage tank.

(10) District – The Antelope Valley Air Pollution Control District the geographical area of which is described in District Rule 103.

(11) Enhanced Vapor Recovery (EVR) – Performance standards and specifications set forth in the CARB CP 201 (Certification Procedure for Vapor Recovery Systems at Gasoline dispensing facilities) Sections 3 through 9.

(12) Fueling Position – A fuel dispensing unit consisting of nozzle(s) and meter(s) with the capability to deliver only one fuel product at one time.

(13) Gasoline – Any petroleum distillate or petroleum distillate/alcohol blend having a true vapor pressure greater than 200 mm Hg (3.9 psi) and less than 760 mm Hg (14.7 psi) at 100 degrees F as determined by ASTM Method D323-89.

(14) Gasoline Transfer and Dispensing Facility – A mobile system, including Mobile Fuelers, or a stationary facility consisting of one or more storage tanks and associated equipment which receive, store, and dispense Gasoline subject to the provisions of this rule.

(15) Gasoline Vapors – The organic compounds in vapor form displaced during Gasoline transfer and dispensing operations, and includes entrained liquid Gasoline.

(16) Insertion Interlock Mechanism – Any "CARB Certified" mechanism that ensures a tight fit at the nozzle fill pipe interface and prohibits the dispensing of Gasoline unless the bellows is compressed.

(17) Liquid Removal Device – A device designed specifically to remove trapped liquid from the vapor passages of a Coaxial Hose.

(18) Liquid-tight – A liquid leak rate not exceeding three drops per minute.

(19) Mobile Fueler – Any tank truck or trailer that is used to transport and dispense Gasoline from an onboard storage tank into any Motor Vehicle fuel tank.

(20) Motor Vehicle – Any self-propelled vehicle as defined in Section 415 of the California Vehicle Code.

(21) Onboard Refueling Vapor Recovery (ORVR) – Vehicle emission control system that captures fuel vapors from the vehicle gas tank during refueling.

(22) Owner/operator – Any person who owns, leases, or operates a Gasoline Transfer and Dispensing Facility.

(23) Poppetted Dry Break – A Phase I Vapor recovery device 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.

(24) Pressure/vacuum Relief Valve – A valve that is installed on the vent pipes of the Gasoline storage tanks to relieve pressure or vacuum build-up at preset values of pressure or vacuum.

(25) Rebuild – An action that repairs, replaces, or reconstructs 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.

(26) Retail Gasoline Transfer and Dispensing Facility – Any Gasoline Transfer and Dispensing Facility subject to the payment of California sales tax for the sale of Gasoline to the public.

(27) Spill Box – 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.

(28) Submerged Fill Tube – Any fill tube the discharge opening of which is entirely submerged, when the liquid level above the bottom of the tank is:

(a) 15.2 cm (6 inches), for tanks filled from the top, or

(b) 45.7 cm (18 inches) for tanks filled from the side.

(29) Unites States Environmental Protection Agency (USEPA) – The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(30) Vacuum-assist System – A Phase II Vapor Recovery System that uses vacuum-producing device such as a compressor or turbine to create a vacuum during Gasoline dispensing to capture Gasoline Vapors.

(31) Vapor Check Valve – A valve that opens and closes the vapor passage to the storage tank to prevent Gasoline Vapors from escaping when the nozzle is not in use.

(32) Vapor-tight – The detection of less than 10,000 ppm hydrocarbon concentration, as determined by EPA Method 21, using an appropriate analyzer calibrated with methane.

(33) Volatile Organic Compound (VOC) – Any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds as listed in 40 CFR 51.100(s)(1).

(C) Requirements

(1) Gasoline Transfer Into Stationary Storage Tanks and Mobile Fuelers (Phase I)

A person shall not transfer, permit the transfer or provide equipment for the transfer of Gasoline from any tank truck, trailer or railroad tank car into any stationary storage tank with a capacity of 950 liters (251 gallons) or more, or any Mobile Fueler tank of greater than 454 liters (120 gallons) capacity unless all of the following conditions are met:

(a) Such stationary storage tank or Mobile Fueler tank is equipped with a "CARB Certified" Submerged Fill Tube;

(b) Such stationary storage tank or Mobile Fueler tank is equipped with a "CARB Certified" Vapor Recovery System, which is maintained and operated according to the manufacturer's specifications;

(c) All vapor return lines are connected between the tank truck, trailer or railroad tank car, and the stationary storage tank or Mobile Fueler. In addition, all associated hoses, fittings, and couplings are maintained in a Liquid-tight and Vapor-tight condition, as defined under subsection (B)(18) and (B)(32);

(d) The hatch on any tank truck, trailer, or railroad tank car shall not be opened for more than three (3) minutes for each visual inspection, provided that:

(i) Transfer or pumping has been stopped for at least three (3) minutes prior to opening; and

(ii) The hatch is closed before transfer or pumping is resumed.

(e) Underground tank lines are gravity drained, and above-ground tanks are equipped with dry breaks, or as approved by the District, such that upon line disconnect the liquid leak rate does not exceed three (3) drops per minute;

(f) Equipment subject to this subsection is operated and maintained, according to all of the following requirements:

(i) All fill tubes are equipped with Vapor-tight covers, including gaskets;

(ii) All dry breaks are equipped with Vapor-tight seals and dust covers;

(iii) Fixed or Spring-Loaded coaxial fill tubes are operated so that the vapor passage from the stationary storage tank or the Mobile Fueler back to the tank truck, trailer, or railroad tank car is not obstructed;

(iv) The fill tube assembly, including fill tube, fittings and gaskets, is maintained to prevent vapor leakage from any portion of the Vapor Recovery System; and

(v) All stationary storage tank or the Mobile Fueler vapor return lines without dry breaks are equipped with Vapor-tight covers, including gaskets.

(g) Any time an underground stationary storage tank is installed or replaced at any Gasoline Transfer and Dispensing Facility, a "CARB Certified" Spill Box shall be installed;

(h) A person shall not install or permit the installation of any Phase I Vapor Recovery System of the coaxial design at any Gasoline Transfer and Dispensing Facility unless such system was certified by CARB after January 1, 1994; and

(i) A person shall not install or permit the installation of any Phase I Vapor Recovery System of the dual-point design at any Gasoline Transfer and Dispensing Facility unless such system incorporates "CARB Certified" Poppetted Dry Breaks or spring-loaded Vapor Check Valves on the vapor return coupler.

(2) Gasoline Transfer Into Vehicle Fuel Tanks (Phase II)

A person shall not transfer, or permit the transfer, or provide equipment for the transfer of Gasoline from a stationary storage tank or a Mobile Fueler of greater than 454 liters (120 gallons) capacity into any Mobile Fueler of greater than 454 liters (120 gallons) capacity or any Motor Vehicle fuel tank of greater than 19 liters (5 gallons) capacity unless all of the following conditions are met:

(a) The dispensing unit used to transfer the Gasoline from the stationary storage tank or Mobile Fueler to the Mobile Fueler or Motor Vehicle fuel tank is equipped with a "CARB Certified" Vapor Recovery System;

(b) The Vapor Recovery System and associated components are operated and maintained in a Vapor-tight and Liquid-tight manner in accordance with the manufacturer's specifications and the applicable CARB certification;

(c) Equipment subject to this rule is operated and maintained with none of the defects listed in California Code of Regulations, Section 94006, Subchapter 8, Chapter 1, Part III of Title 17, as specified in the most recently adopted CARB “Vapor Recovery Equipment Defects List” (http://www.arb.ca.gov/vapor/title17/title17.htm);

(d) A person shall not install or permit the installation of any Balance System bellows-equipped nozzle at any Gasoline Transfer and Dispensing Facility unless the nozzle is equipped with a "CARB Certified" Insertion Interlock Mechanism;

(e) A person shall not install or permit the installation of any Balance System nozzle at a new or Altered Gasoline Transfer and Dispensing Facility unless a Vapor Check Valve is located in the nozzle. In addition, effective January 1, 1997, a person shall not operate or permit the operation of any Balance System nozzle unless a Vapor Check Valve is located in the nozzle;

(f) A person shall not install or permit the installation of any nozzle at a new or Altered Gasoline Transfer and Dispensing Facility unless the nozzle is equipped with a Coaxial Hose. In addition, effective January 1, 1998, a person shall not operate any Gasoline-dispensing nozzle unless the nozzle is equipped with a Coaxial Hose;

(g) Unless otherwise specified in the applicable CARB Executive Orders, the inside diameter of the connection between the riser and dispenser cabinet at a new or Altered Gasoline Transfer and Dispensing Facility shall not be less than 0.75 inch. If a flexible tubing is used for this connection, the material shall be appropriate for use with Gasoline and shall be equipped with a clearly visible bonding strap;

(h) Unless otherwise specified in the applicable CARB Executive Orders, all Liquid Removal Devices installed for any Gasoline-dispensing nozzle with a dispensing rate of greater than five gallons per minute shall be "CARB Certified" with a minimum liquid removal rate of five milliliters per gallon transferred; and

(i) The breakaway coupling shall be CARB certified. Any breakaway coupling shall be equipped with a poppet valve, which shall close and maintain both the gasoline vapor and liquid lines vapor tight and liquid tight when the coupling is separated. In the event of a separation due to a “drive-off”, the owner/operator shall complete one of the following and document the activities pursuant to paragraph (C)(5)(e) recordkeeping requirements:

(i) Conduct a visual inspection of the affected equipment and perform qualified repairs on any damaged components before placing any affected equipment back in service. In addition, the applicable re-verification tests pursuant to section (D), or equivalent test methods as approved in writing by the Executive Officer and CARB, shall be conducted and successfully passed prior to the affected equipment dispensing gasoline into any vehicle; or

(ii) Conduct a visual inspection of the affected equipment and replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are CARB certified, before placing any affected equipment back in service.

(3) Additional Requirements

(a) A person shall not supply, offer for sale, sell, install or allow the installation of any Vapor Recovery System or any of its components, unless the system and component 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, the qualified manufacturer's unique serial number for each component shall also be clearly and permanently marked for the dispensing nozzles. Any qualified manufacturer who rebuilds a component shall also clearly and permanently mark the corresponding information on the component.

(b) A person shall not perform or permit the "pump-out" (bulk transfer) of Gasoline from a storage tank subject to subsection (C)(1); unless such bulk transfer is performed using a vapor collection and transfer system capable of returning the displaced vapors to the stationary storage tank.

(c) A person shall not store, or allow the storage of, Gasoline in any stationary storage tank with a capacity of 950 liters (251 gallons) or more unless such tank:

(i) Complies with Rule 463(a); or
(ii) Is equipped with a Phase I Vapor Recovery System.

(d) The Owner/operator of any Gasoline Transfer and Dispensing Facility shall conspicuously post District-required signs specified in Attachment A of this rule in the immediate Gasoline dispensing area.

(e) A dispenser that is not intended to be used to fuel Motor Vehicles shall have sign posted on it to that effect.

(f) A person shall not store, or allow the storage of, gasoline in any stationary storage tank with a capacity of 950 liters (251 gallons) or more, or any mobile fueler with a capacity of 454 liters (120 gallons) or more, unless the vent pipe of the tank complies with all of the following:

(i) The vent pipe opening is equipped with a "CARB certified" pressure-vacuum relief valve.
(ii) The vent pipe opening for a stationary storage tank is at least 12 feet above the driveway level used for tank truck filling operations.
(iii) Unless otherwise specified in the applicable CARB Executive Orders, the pressure-vacuum relief valve for an underground storage tank vent shall be set for pressure relief at 2.5 to 6.0 inches water column and vacuum relief at 6.0 to 10.0 inches water column. The valves for vents on aboveground tanks and mobile fuelers shall meet the applicable CARB certified specifications.
(iv) Pressure-vacuum relief valves for stationary storage tanks, as supplied and installed, shall be color-coded or otherwise clearly marked to identify the pressure-vacuum setting. The valves shall be installed on the vent pipe(s) such that the color codes or marks shall be legible to ground-level observers.
(v) For the purpose of this requirement, vent pipes of gasoline storage

tanks may be manifolded to a single valve when the stationary storage tanks are manifolded according to the applicable CARB Executive Order.

(g) Gasoline shall not be stored in open container(s) of any size or handled in any manner (spillage, spraying, etc.) that permits Gasoline or Gasoline Vapors to enter the atmosphere, contaminate the ground, or the sewer.

(h) The failure of an Owner/operator of any Gasoline Transfer and Dispensing Facility to meet any requirements of section (C) of this rule shall constitute a violation. Such non-compliant equipment shall be tagged "Out of Order."

(i) Except during repair activity, the "Out of Order" tag specified in subsection (C)(3)(h) shall not be removed and the non-compliant equipment shall not be used, permitted to be used, or provided for use unless all of the following conditions are satisfied:

(i) The non-compliant equipment has been repaired, replaced, or adjusted, as necessary;
(ii) The Owner/operator has notified the District of the repairs by completing, signing and submitting the form supplied by the District; and,
(iii) The non-compliant equipment has been reinspected and/or authorized for use by the District.

(j) The Owner/operator of a new or Altered Gasoline Transfer and Dispensing Facility shall have all underground storage tank installation and associated piping configuration inspected prior to any backfilling to verify that all underground equipment is properly installed in accordance with the requirements specified in the applicable CARB Executive Order. The District shall be notified by telephone at least 24 hours prior to the backfilling.

(k) The Owner/operator of a new or Altered Gasoline Transfer and Dispensing Facility shall have all Phase I and Phase II Vapor Recovery Systems inspected upon completion of the construction to verify that all components were installed in accordance with the description specified in the Authority to Construct and in compliance with all District requirements. The District shall be notified in writing of any changes to the information and specifications submitted with the application under which the Authority to Construct was issued.

(4) Self-Compliance Program Requirements

The Owner/operator of any Retail Gasoline Transfer and Dispensing Facility shall implement a self-compliance program as follows:

(a) The self-compliance program shall include the following elements:

(i) Weekly maintenance inspections shall be conducted in accordance with the protocol specified in Attachment B to ensure proper operating conditions of all components of the Vapor Recovery Systems.

(ii) Periodic compliance inspections shall be conducted at least once every twelve months and in accordance with the protocol specified in Attachment C to verify the compliance with all applicable District rules and regulations, as well as all permit conditions.

(iii) Maintenance schedules consistent with the applicable Phase I and Phase II Vapor Recovery Systems and components installed at the Gasoline transfer and dispensing facility.

(iv) An employee training program including the following:

a. Itemized training procedures for employees responsible for conducting any part of the self-compliance program.

b. A training schedule to periodically train any employee responsible for conducting any part of the self-compliance program.

c. A record for each employee of the dates of training provided and the next training date.

d. A procedure to review and establish any additional necessary training following any changes or updates to the CARB Executive Order for the installed Vapor Recovery System.

(b) Any equipment with major defect(s) which are identified during the weekly maintenance inspections or periodic compliance inspections shall be removed from service, repaired, brought into compliance, and duly entered into the repair logs required under subsection (C)(5)(e) before being returned to service.

(c) Defects discovered during self inspection and repair shall not constitute a violation of Rule 461.

(5) Testing, Reporting and Recordkeeping Requirements

(a) Within 90 calendar days or after dispensing the first 60,000 gallons of fuel into a Mobile Fueler or a vehicle fuel tank, the Owner/operator of a new or Altered Gasoline Transfer and Dispensing Facility shall conduct and successfully pass the performance tests in accordance with the test methods specified in section (D), and any additional tests required by the applicable CARB Executive Orders and District Permits, to verify the proper installation and operation of Phase I and Phase II Vapor Recovery Systems. Test results shall be submitted as stated in subsections (C)(5)(c)(iv) and (C)(5)(c)(v).

(b) The Owner/operator shall conduct and successfully pass the re-verification tests in accordance with the test methods specified in section (D), and any additional tests required by the applicable CARB Executive Orders or District Permits, to verify the proper operation of the Vapor Recovery Systems. Test results shall be submitted as stated in subsections (C)(5)(c)(iv) and (C)(5)(c)(v).

(i) The re-verification tests at Retail Gasoline Transfer and Dispensing Facilities shall be conducted annually.

(ii) The Owner/operator of a non-retail Gasoline Transfer and Dispensing Facility shall complete the re-verification tests annually.

(iii) Once a facility re-verification testing month(s) are established, subsequent re-verification testing shall be conducted during the same months each year. When a new performance test schedule is required due to a facility alteration, new re-verification testing months shall be established based on the date of the performance tests.

(iv) In case of a change of operator, the new operator shall conduct the next re-verification test on the same testing month as established by the previous operator, if the previous re-verification testing records are available. When no testing records are available, the new operator shall complete all the applicable re-verification testing within 90 calendar days of the change of operator.

(c) A person who conducts performance or re-verification tests shall comply with all of the following:

(i) Conduct performance or re-verification tests in accordance with the applicable test methods listed in section (D) and other CARB testing procedures. Tests shall be conducted using calibrated equipment meeting the calibration range and calibration intervals specified by the manufacturer.

(ii) Notify the District at least ten calendar days prior to testing. In the event that a performance test or re-verification test cannot be conducted at the scheduled date and time, the test may be re-scheduled to a later date and time provided that the District is notified at least 24 hours prior to the originally scheduled time. All notification under this subsection shall be provided by District approved methods.

(iii) Conduct performance and re-verification tests during normal District business hours. The APCO may approve alternative testing.

(iv) Submit a copy of the PASS/FAIL test results in a District approved format to the APCO within 30 calendar days after each test is

conducted. The PASS/FAIL test results are a summary of the overall results of each test.

(v) Submit the final test report demonstrating compliance within 30 calendar days of the date when all tests were passed. The test report shall include all the required records of all tests performed, test data, current AVAQMD facility ID number of the location being tested, the equipment Permit to Operate or Application number and, a statement whether the system or component tested meets the required standards.

(d) The Owner/operator shall not operate or resume operation of a Gasoline transfer and dispensing facility, unless the facility has successfully passed the applicable performance or re-verification tests. Notwithstanding the above, when a dispenser associated with any equipment that has failed a re-verification test is isolated and shut down, the Owner/operator may continue operation or resume operation of the remaining equipment at the facility, provided that test results demonstrate that the remaining equipment is in good operating condition. All test results and the method of isolating the defective equipment shall be documented in the test reports to be submitted to the APCO pursuant to subsection (C)(5)(e)(iii), (C)(5)(c)(iv) and (C)(5)(c)(v).

(e) Recordkeeping

A person who performs the installation of components, self-compliance inspections, repairs or testing at any Gasoline Transfer and Dispensing Facility, including, but not limited to, the activities for normal operation and maintenance, performance testing, re-verification testing and those following a drive-off, shall provide to the Owner/operator all records listed below, as applicable, at the end of each day when the service is provided. The Owner/operator of any Retail or non-retail Gasoline Dispensing Facility shall maintain all records listed below and any other test results or maintenance records that are required to demonstrate compliance on site for a period of at least two (2) years (or five (5) years for Title V facilities). Notwithstanding, records for non-retail Gasoline Dispensing Facilities that are unmanned may be kept at other locations approved by the APCO. All records shall be made available to the APCO upon request both on site during inspections and offsite as specified.

(i) Records of all components installed, defective components identified or repaired during self-compliance inspections.

(ii) Repair logs, which shall include:

a. Date and time of each repair.

b. The name of the person(s) who performed the repair, and, if applicable, the name, address and phone number of the person's employer.

c. Description of service performed.
d. Each component that was installed, repaired, serviced, or removed, including the required component identification information pursuant to subsection (C)(3)(a).
e. Each component that was installed as replacement, if applicable, including the required component identification information pursuant to subsection (C)(3)(a).
f. Receipts for parts used in the repair and, if applicable, work orders, which shall include the name and signature of the person responsible for performing the repairs.

(iii) Records of tests, which shall include:
a. Date and time of each test.
b. Name, affiliation, address and phone number of the person(s) who performed the test.
c. Test data and calibration data for all equipment used.
d. Date and time each test is completed and the facility Owner/operator is notified of the results. For a test that fails, a description of the reasons for the test failure shall also be included.
e. For a re-test following a failed performance or re-verification test, description of repairs performed pursuant to subsection (C)(5)(e)(i) and (C)(5)(e)(ii).
f. Copies of test reports in District approved format.

(iv) Monthly Gasoline throughput records.

(v) Records to prove that the installer/contractor that installed or altered the Enhanced Vapor Recovery (EVR) equipment has successfully completed a manufacturer training program and any relevant state certification program applicable to the Phase I and Phase II Enhanced Vapor Recovery systems and associated components as specified in subsection (C)(3)(a).

(f) Recordkeeping for Exempt Fleets

An Owner/operator claiming exemption under Section (E)(4) shall keep a record of the make , model, model year, and vehicle identification number of all vehicles refueled at the Gasoline dispensing facility. These records shall be maintained on the premises for at least two (2) calendar years.

(D) Performance and Re-verification Test Methods

All test methods referenced in this subsection shall be the most recently CARB approved version or as stated in the applicable CARB Executive Orders.

(1) The static pressure performance of a Phase I or Phase II Vapor Recovery System for underground and aboveground tanks shall be determined by the CARB Test Procedure TP-201.3 and TP-201.3B, as applicable.

(2) The dynamic pressure performance of a Phase II Vapor Recovery System shall be determined by the CARB Test Procedure TP-201.4.

(3) The air-to-liquid volume ratio of a Phase II Vapor Recovery System shall be determined by the CARB Test Procedure TP-201.5.

(4) The liquid removal rate of a Phase II Vapor Recovery System shall be determined by the CARB Test Procedure TP-201.6.

(5) The manifold of the underground storage tanks shall meet CARB tank tie test requirements pursuant to TP-201.3C.

(6) The static torque of rotatable adaptors for a Phase I Enhanced Vapor Recovery system shall be determined by the CARB Test Procedure TP-201.1B.

(7) The applicable tests for the drop tube, drain valve assembly, and overfill prevention device are the following:

(a) The leak rate of the drop tube/drain valve assembly for a Phase I Enhanced Vapor Recovery system shall be determined by the CARB Test Procedure TP-201.1C.

(b) The leak rate of the drop tube overfill protection device and spill container drain valve for a Phase I Enhanced Vapor Recovery system shall be determined by the CARB Test Procedure TP-201.1D.

(8) The leak rate and cracking pressure of pressure/vacuum vent valves for a Phase I Enhanced Vapor Recovery system shall be determined by the CARB Test Procedure TP-201.1E.

(9) Any other test methods approved by the USEPA, CARB, and the District for underground tanks, aboveground tanks, and Mobile Fuelers.

(E) Exemptions

The provisions of this Rule shall not apply to the transfer of Gasoline:

(1) Into or from any stationary storage tank or Mobile Fueler if 75 percent or more of its monthly throughput is used for the fueling of implements of husbandry, such as vehicles defined in Division 16 (Section 36000, et seq.) of the California Vehicle Code, provided such a tank is equipped with a Submerged Fill Tube.

(2) Into or from any stationary storage tank or Mobile Fueler used exclusively for fueling agricultural wind machines.

(3) From any Mobile Fueler of greater than 454 liters (120 gallons) into any Motor

Vehicle fuel tank of greater than 19 liters (5 gallons) capacity until 12 months following the general commercial availability of an applicable vapor recovery design suitable to the Mobile Fueler's Gasoline transfer and storage equipment and certification of such a system by CARB.

(4) The requirements of (C)(2) shall not apply to dedicated, non-public accessible, fuel dispensing equipment serving vehicle fleets where 95 percent of the fleet vehicles are equipped with Onboard Refueling Vapor Recovery (ORVR) systems. To qualify for this exemption, the fleet operator must also own the Gasoline Transfer and Dispensing operation that services the vehicle fleet.

(a) Prior to operating under the exemption in Section (E)(4), operator shall obtain a valid Authority to Construct or Permit to Operate allowing such operations.

[SIP: Submitted as amended mm/dd/yy on _____; Disapproved 6/21/01, 66 FR 33177, 40 CFR 52.269(b)(3)(ii)(a) Prior version dated 1/3/96 retained; Approved 10/7/96, 61 FR 52297, 40 CFR 52.220(c)(229)(i)(A)(1); Approved 8/17/94, 59 FR 42165, 40 CFR 52.220(c) (182)(i)(A)(4); Approved 5/3/84, 49 FR 18829, 40 CFR 52.220(c)(127)(vii)(B); Approved 7/8/82, 47 FR 2968, 40 CFR 52.220(c)(95)(iv)(A); Approved _____, _____, 40 CFR 52.220(c)(66)(i)(A); Approved _____, _____, 40 CFR 52.220(c)(45)(iii)(A); Disapproved prior version of 4/21/76 retained 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(A), 40 CFR 52.220(c)(39)(vi)(B) and 40 CFR 52.229(b)(2)(i); Approved 7/26/77, 42 FR 37976, 40 CFR 52.220(c)(31)(vi)(A) and 40 CFR 52.220(c)(35)(ii)(A)]

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ATTACHMENT A

AVAQMD-REQUIRED SIGNS

(A) The operator shall post the following signs:

(1) "NOZZLE" operating instructions;

(2) Antelope Valley AQMD" toll-free telephone number; and

(3) A "warning" stating:

"TOXIC RISK - FOR YOUR OWN PROTECTION
DO NOT BREATHE FUMES
DO NOT TOP TANKS"

(B) All required signs shall conform to all of the following:

(1) For decal signs:

(a) Each sign shall be visible from all Fueling Positions it serves; and

(b) Sign shall be readable from a distance of 3 feet.

(2) All other signs:

(a) For pump toppers, one double-back sign per island;

(b) For permanent (non-decal) signs, two single-sided or one double-sided sign(s) per two (2) dispensers; and

(c) All signs shall be readable from a distance of 6 feet.

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ATTACHMENT B

WEEKLY MAINTENANCE INSPECTION PROTOCOL

The Owner/operator of a Retail Gasoline Transfer and Dispensing Facility shall at minimum verify the following during the weekly maintenance inspections:

(A) PHASE I VAPOR RECOVERY SYSTEM INSPECTION

(1) The spill container is clean and does not contain Gasoline. The spill containment drain valve shall be Vapor-tight.

(2) The fill caps are not missing, damaged or loose.

(3) If applicable:

(a) The spring-loaded Submerged Fill Tube seals properly against the coaxial fitting.

(b) The dry break (poppet valve) is not missing or damaged.

(4) The Submerged Fill Tube is not missing or damaged.

(B) PHASE II VAPOR RECOVERY SYSTEM INSPECTION

(1) The fueling instructions are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs.

(2) The following nozzle components are in place and in good condition, as specified in CARB Executive Orders:

(a) faceplate/facecone; vapor splash guard/fill guard/efficiency compliance device (ECD)/VEG

(b) bellows

(c) latching device spring

(d) Vapor Check Valve

(e) spout (proper diameter/vapor collection holes)

(f) Insertion Interlock Mechanism

(g) automatic shut-off mechanism

(h) hold open latch

(3) The hoses are not torn, flattened or crimped.

(4) For Vacuum-assist Systems, the vapor processing unit and burner are functioning properly.

(C) RECORDS OF DEFECTIVE COMPONENTS

ATTACHMENT C

PERIODIC COMPLIANCE INSPECTION PROTOCOL

The Owner/operator of a Retail Gasoline Transfer and Dispensing Facility shall at minimum verify the following during the periodic compliance inspections:

(A) GENERAL INSPECTION

(1) The District permit is current.

(2) The equipment and District permit description match.

(3) The facility complies with all permit conditions.

(4) The required sign is properly posted and the sign contains all the necessary information (i.e., toll-free complaint phone number, toxic warning sign, etc.).

(B) PHASE I VAPOR RECOVERY SYSTEM INSPECTION

(1) The spill container is clean and does not contain Gasoline.

(2) The fill caps are not missing, damaged or loose.

(3) If applicable:

(a) The spring-loaded Submerged Fill Tube seals properly against the coaxial fitting.

(b) The dry break (poppet valve) is not missing or damaged.

(4) The Submerged Fill Tube is not missing or damaged.

(5) The distance between the highest level of the discharge opening of the Submerged Fill Tube and the bottom of the stationary storage tank does not exceed six inches (6").

(6) The Phase I Vapor Recovery System complies with required CARB certification and is properly installed.

(7) The Spill Box complies with required CARB certification and is properly installed.

(8) The vent pipes are equipped with required Pressure/vacuum Relief Valves.

(C) PHASE II VAPOR RECOVERY SYSTEM INSPECTION

(1) The fueling instructions are clearly displayed.

(2) Each nozzle is the current CARB-certified model.

(3) Each nozzle is installed in accordance with the applicable CARB Executive Orders.

(4) The following nozzle components are in place and in good condition, as specified in CARB Executive Orders or California Code of Regulations, Title 17, Part III, Chapter 1, subchapter 8, section 94006 or Health and Safety Code Section 41960.2 (e):

(a) faceplate/facecone; vapor splash guard/fill guard/efficiency compliance device (ECD)

(b) bellows

(c) latching device spring

(d) Vapor Check Valve

(e) spout (proper diameter/vapor collection holes)

(f) Insertion Interlock Mechanism

(g) automatic shut-off mechanism

(h) hold open latch

(5) The hoses are not torn, flattened or crimped.

(6) The vapor recovery hoses are the required size and length.

(7) The hoses with retractors are adjusted to maintain a proper loop, and the bottom of the loop is within the distance from the island surface certified by the CARB Executive Order for that particular dispenser configuration.

(8) The vapor recovery nozzles are equipped with required hoses.

(9) The bellows-equipped vapor recovery nozzles are equipped with "CARB Certified" Insertion Interlock Mechanisms.

(10) If required, the flow limiter is not missing and is installed properly.

(11) The swivels are not missing, defective, or leaking, and the dispenser-end swivels, if applicable, are Fire-Marshall approved with 90-degree stops.

(12) If required, the Liquid Removal Devices comply with required CARB certifications and are properly installed.

(13) For Bellows-less Nozzles, the hoses are inverted coaxial type except for Hirt systems, and the vapor collection holes are not obstructed.

(14) For Vacuum-assist Systems, the vapor processing unit and burner are functioning properly.

(15) For Aspirator-assist Systems, the major components (i.e. aspirator or jet pump, modulating valve, and Vapor Check Valve) are present inside each dispenser. For Aspirator-assist Systems with certification-required calibration stickers, the current calibration sticker is present.

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(**Adopted**; 01/09/76; **Amended**; 05/05/78; **Amended**; 10/14/79; **Amended;** 04/04/86; **Amended**; 12/07/90; **Amended**; 06/09/95; **Amended**; 09/19/17)

RULE 462
Organic Liquid Loading

(A) General

(1) Purpose

(a) This rule is intended to control emissions of Volatile Organic Compounds (VOC) from Facilities that load Organic Liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car.

(2) Applicability

(a) The provisions of this rule shall apply to all Organic Liquid loading facilities that are defined as Class "A", "B" or "C" facilities pursuant to Section (B) of this rule.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) "Background" - The ambient concentration of organic vapors in the air measured according to the EPA Method 21.

(2) "Class "A" Facility" - Any Facility which loads 20,000 gallons (75,700 liters) or more on any one day of Organic Liquids into any tank truck, trailer, or railroad tank car.

(3) "Class "B" Facility" - Any Facility which:

(a) was constructed before January 9, 1976 and loads more than 4,000 gallons (15,140 liters) but not more than 20,000 gallons (75,700 liters) of Gasoline on any one day into any tank truck, trailer, or railroad tank car.

(b) was constructed before January 9, 1976 and loads not more than 4,000 gallons (15,140 liters) of Gasoline on any one day, but more than 500,000 gallons (1,892,500 liters) of Gasoline in any one calendar year, into any tank truck, trailer, or railroad tank car.

(c) was constructed after January 9, 1976 and loads not more than 20,000 gallons (75,700 liters) of Gasoline on any one day into a tank truck, trailer or railroad tank car.

(4) "Class "C" Facility" - Any Facility existing before January 9, 1976 which loads not more than 4,000 gallons (15,140 liters) of Gasoline on any one day and not more than 500,000 gallons in any one calendar year, into any tank truck, trailer, or railroad tank car.

(5) "Exempt Compounds" - Those compounds listed in 40 CFR 51.100(s)(1).

(6) "Facility" - An Organic Liquid or Gasoline loading rack or set of such racks that load Organic Liquid or Gasoline into tanks, trailers or railroad cars, which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person or persons under common control.

(7) "Facility Vapor Leak" - The escape of organic vapors from a source other than a tank truck, trailer or railroad tank car in excess of 3,000 ppm as methane above Background when measured according to EPA Method 21. A Facility Vapor Leak source does not include liquid spillage or condensate resulting from "Liquid Leaks".

(8) "Gasoline" - Any petroleum distillate or petroleum distillate/alcohol blend or alcohol, except any liquefied petroleum gas (LPG), which has a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions and is used as a fuel for internal combustion engines.

(9) "Liquid Leak" - The dripping of liquid organic compounds at a rate in excess of three drops per minute from any single leak source other than the liquid fill line and vapor line of disconnect operations.

(10) "Liquid Leak from Disconnect Operations" - Defined as:

(a) more than two milliliters of liquid drainage per disconnect from a top loading operation; or

(b) more than ten milliliters of liquid drainage per disconnect from a bottom loading operation.

Such liquid drainage shall be determined by computing the average drainage from three consecutive disconnects at any one loading arm.

(11) "Organic Liquid" - Any liquid compound containing the element carbon that has a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions excluding liquefied petroleum gases (LPG), methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds.

(12) "Submerged Fill Loading" - A type of Organic Liquid loading operation where the discharge opening is completely submerged when the liquid level above the bottom of the Transport Vessel is eight centimeters (3.2 inches) or higher.

(13) "Switch Loading" - The transfer of organic liquids with a vapor pressure of less than 1.5 psia (77.5 mm Hg) under actual loading conditions into any tank truck, trailer or railroad tank car that was loaded with an Organic Liquid with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater, immediately preceding the transfer.

(14) "Transfer Equipment" - Shall consist of all the components of the liquid loading line between the liquid pump and the transporting vessel, and the vapor return line from the transporting vessel to the storage tank, or to and including the Vapor Recovery System.

(15) "Transport Vessel" - A tank truck, trailer or railroad tank car that is equipped to receive and transport Organic Liquid.

(16) "Transport Vessel Vapor Leak" - The escape of organic vapors from a Transport Vessel in excess of 100 percent of the lower explosive limit when monitored according to the CARB Vapor Recovery Test Procedure TP 204.3 – *Determination of Leak(s).*

(17) "Vapor Disposal System" - The control equipment designed and operated to reduce VOC emissions into the atmosphere.

(18) "Vapor Recovery System" - A vapor gathering system which is capable of collecting and returning discharged hydrocarbon vapors and gases during loading of Organic Liquids into Transport Vessels, back to a stationary storage container, or into an enclosed process system.

(19) "Volatile Organic Compound (VOC) - Any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds.

(C) Requirements

(1) Loading Requirements at Class "A" Facilities

(a) Each Class "A" Facility shall be equipped with a CARB certified Vapor Recovery System and/or disposal system.

(b) Each vapor recovery and/or disposal system at a Class "A" Facility shall be equipped with a continuous monitoring system (CMS) that is installed, operated, and maintained according to the manufacturer's specifications and is approved by the Executive Officer or designee.

(c) The transfer of Organic Liquids shall be accomplished in such a manner that the displaced organic vapors and air are vented, under design conditions, to the vapor recovery and/or disposal system.

(d) Each vapor recovery and/or disposal system shall reduce the emissions of VOCs to 0.08 pound or less per thousand gallons (10 grams per 1,000 liters) of Organic Liquid transferred.

(e) Any Class "A" Facility transferring Gasoline into any truck, trailer, or railroad tank car shall be designed and operated for bottom loading only.

(f) The Transfer Equipment shall be operated and maintained so that there are no overfills, Facility Vapor Leaks, Liquid Leaks, or Liquid Leaks from disconnect operations.

(g) The backpressure in the vapor recovery and/or disposal system shall not exceed 18 inches of water column pressure.

(2) Loading Requirements at Class "B" Facilities

(a) Each Class "B" Facility shall be equipped with a CARB certified Vapor Recovery System.

(b) Such system shall be designed and operated to recover at least 90 percent of the displaced vapors.

(c) The backpressure in the Vapor Recovery System shall not exceed 18 inches of water column pressure.

(d) Any Class "B" Facility transferring Gasoline into any truck, trailer, or railroad tank car, shall be designed for bottom loading only.

(e) The Transfer Equipment shall be operated and maintained so that there are no overfills, Facility Vapor Leaks, Liquid Leaks, or Liquid Leaks from disconnect operations.

(3) Loading Requirements at Class "C" Facilities

(a) Each Class "C" Facility shall be equipped and operated for Submerged Fill Loading or bottom fill loading. All Gasoline or equivalent vapor pressure Organic Liquids shall be transferred in this manner.

(b) The Transfer Equipment shall be operated and maintained so that there are no overfills, Liquid Leaks, or Liquid Leak from disconnect operations.

(4) Loading Requirements for Transport Vessels

(a) No person shall allow loading or unloading of Organic Liquid or other use or operation of any Transport 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).

(b) Transport Vessel vapor leaks from dome covers, pressure vacuum vents or other sources shall be determined in accordance with the CARB Vapor Recovery Test Procedure TP-204.3 – *Determination of Leak(s).*

(c) The Transport Vessel shall be operated so that there are no Transport Vessel Vapor Leaks or Liquid Leaks.

(5) Switch Loading

(a) Uncontrolled Switch Loading is prohibited except at Class "C" facilities.

(6) Leak Inspection Requirements

(a) The owner and operator of any Class "A", "B", or "C" Facility shall be required to perform an inspection of the vapor collection system, the Vapor Disposal System, and each loading rack handling Organic Liquids, for Facility Vapor Leaks or Liquid Leaks of VOC's on one of the following schedules:

(i) Annual inspection using EPA Method 21 if monthly sight, sound, and smell are used as detection methods; or
(ii) Quarterly inspection if EPA Method 21 is used to monitor for Facility Vapor Leaks.

(b) Each detection of a leak shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement component shall be reinspected the first time the component is in operation after the repair or replacement.

(7) CARB Certification

(a) Within 30 calendar days after completing construction of any new or modified vapor recovery and/or disposal system, the owner/operator of a Class "A" or Class "B" facility shall submit a written request to CARB for certification of the new or modified vapor recovery and/or disposal system.

(D) Compliance Determination/Test Methods

(1) Compliance with the emission limit of organic vapors as specified in (C)(1)(d) shall be determined according to EPA Method 25A, 25B or SCAQMD Method 501.1, as applicable.

(2) Continuous Monitoring System required pursuant to (C)(1)(b) shall be in compliance with Code of Federal Regulation Title 40 Part 63 Subpart R Section 63.427 and Code of Federal Regulations Title 40 Part 60 Appendix B, as applicable.

(3) Compliance with the vapor recovery efficiency as specified in (C)(2)(b) shall be determined according to CARB Vapor Recovery Certification Procedure CP-202 – Certification Procedure for Vapor Recovery Systems of Bulk Plants.

(4) Determination of Facility Vapor Leaks as defined in (B)(7) shall be conducted according to EPA Method 21.

(5) Any other alternative test method approved in writing by the Executive Officer, CARB, and USEPA may be used only when none of the test methods identified in this section are applicable.

(6) When more than one test method or set of test methods are specified for any testing, a violation of any requirements of this rule established by any one of the specified test methods or set of methods shall constitute a violation of the rule.

(E) Recordkeeping

(1) The owner and operator of any Class “A”, “B”, or “C” Facility, in order to verify the classification of such Facility, shall maintain a daily log of the throughput and a summary of the throughput for the calendar year to date, of the liquid organic compounds subject to the provisions of this rule. A log showing daily compliance shall suffice to satisfy this requirement.

(2) The owner and operator of any Class “A”, “B”, or “C” Facility shall maintain records for verification of compliance with the requirements in paragraph (C)(6). The records shall include, but are not limited to, inspection dates, description of leaks detected, repair/replacement dates, and reinspection dates.

(3) All records shall be maintained at the Facility for at least two years and shall be available to the Executive Officer or designee upon request.

(F) Distribution of Responsibilities

(1) The owner and operator of any Class "A", "B", or "C" Facility shall be responsible and liable for complying with the provisions of paragraphs (C)(1), (C)(2), (C)(3), and (C)(6) and sections (D) and (E) of this rule, and for maintaining the equipment at the Facility in such condition that it can comply with the requirements of this rule if properly operated. If employees of the owner or operator of the Facility supervise or affect the transfer operation, the owner or operator of the Facility shall be responsible for ensuring that the transfer operation complies with all requirements of this rule and that the Transfer Equipment is properly operated.

(2) The owner, operator, and driver of a Transport Vessel shall be responsible and liable for complying with paragraphs (C)(4) and (C)(5) of this rule.

(G) Exemptions

(1) The provisions of subparagraphs (C)(1)(f), (C)(2)(e) and (C)(3)(b) shall not apply to components found in violation of Facility Vapor Leaks or Liquid Leaks either of which is detected and recorded originally by the owner or operator, provided the repair or replacement of applicable equipment is completed within the specified period as given in subparagraph (C)(6)(b).

(2) The provisions of subparagraphs (C)(1)(a) and (C)(1)(b) shall not apply to vapor recovery and/or disposal systems which vent displaced hydrocarbon vapors to an adjacent refinery flare or other combustion device that receives gaseous streams from other refinery sources.

See SIP table
at: http://avaqmd.ca.gov/files/aa5e9c334/AVAQMD%20State%20Implementation%20Plan%20(SIP)%20Table.pdf

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5/24/94

(Adopted August 15, 1977)(Amended June 1, 1984)(Amended December 7, 1990)
(Amended March 11, 1994)

RULE 463. ORGANIC LIQUID STORAGE

(a) Applicability

This rule applies to any above-ground stationary tank with a capacity of 75,000 liters (19,815 gallons) or greater used for storage of organic liquids, and any above-ground tank with a capacity between 950 liters (251 gallons) and 75,000 liters (19,815 gallons) used for storage of gasoline.

(b) Definitions

For purposes of this rule, the following definitions apply:

(1) CERTIFIED person is a person who has successfully completed the District tank self-inspection program, and who holds a certificate issued by the Executive Officer evidencing that such person is in good standing in this program.

(2) EXEMPT COMPOUND is any of the following compounds which have been determined to be non-precursors of ozone:

(A) Group I

chlorodifluoromethane (HCFC-22)
trifluoromethane (HFC-23)
dichlorotrifluoroethane (HCFC-123)
2-chloro-1,1,2,2-tetrafluoroethane (HCFC-124)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
1,1,1-trifluoroethane (HFC-143a)
1,1-diflouroethane (HFC-152a)
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
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II

carbon tetrachloride
methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

Use of Group II compounds will be restricted in the future because they are either toxic or potentially toxic, or upper atmospheric ozone depleters, or cause other environmental impacts. Specifically, the District Board has established a policy to phase out chlorofluorocarbons (CFC), methyl chloroform (1,1,1-trichloroethane), and carbon tetrachloride on or before January 1, 1996.

(3) GASOLINE means any petroleum distillate having a Reid vapor pressure of 200 mm Hg (3.9 pounds per square inch), or greater.

(4) ORGANIC LIQUID is any liquid containing VOCs.

(5) PRESSURE RELIEF VALVE (PRV) is a valve which is automatically actuated by upstream static pressure, and used for safety or emergency purposes.

(6) SEAL is a closure device between the tank wall and the floating roof edge that controls emissions of volatile organic compounds. Approved floating roof tank seals are categorized as follows:

(A) Category "A" seals are seals approved by the Executive Officer as most effective in the control of volatile organic compounds and are deemed Best Available Control Technology (BACT) according to the criteria set forth in Attachment A - "Floating Roof Tank Seal Categories."

(B) Category "B" seals are seals approved by the Executive Officer that are considered more effective than Category "C" seals based on the criteria set forth in Attachment A - "Floating Roof Tank Seal Categories."

(C) Category "C" seals are seals approved by the Executive Officer

which are currently in service but are considered least effective in the control of volatile organic compounds.

(7) TANK is any stationary above-ground reservoir or any other stationary above-ground container used for storage of an organic liquid.

(8) VAPOR TIGHT is a condition that exists when the reading on a portable hydrocarbon meter is less than 1,000 parts per million (ppm), expressed as methane, above background.

(9) VOLATILE ORGANIC COMPOUND (VOC) is any volatile or gaseous chemical compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, or carbonates, ammonium carbonate, and exempt compounds other than carbon tetrachloride.

(c) Tank Roof Requirements

No person shall place, store or hold in any tank with a capacity of 150,000 liters (39,630 gallons) or greater, any organic liquid having a true vapor pressure of 25.8 mm Hg (0.5 psi) absolute or greater under actual storage conditions, and in any tank of more than 75,000 liters (19,815 gallons) capacity, any organic liquid having a true vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions, unless such tank is a pressure tank maintaining working pressures sufficient at all times to prevent organic vapor loss to the atmosphere, or is designed and equipped with one of the following vapor control devices, which is properly installed and continuously maintained in good operating condition:

(1) External Floating Roof

An external floating roof shall consist of a pontoon-type or double deck-type cover that continuously rests on the surface of the organic liquid and is equipped with a closure device between the tank shell and roof edge. The closure device shall consist of two seals, with one seal placed above the other. The seal below shall be designated as the primary seal, and the seal above shall be designated as the secondary seal. A seal which is not identified on the current list of seals approved by the Executive Officer shall not be installed or used unless the Executive Officer determines that

such seal meets the applicable criteria of subparagraphs (c)(1)(A) through (c)(1)(C).

(A) A closure device on a welded or a riveted tank shell which uses a metallic shoe-type seal as its primary seal shall comply with the following requirements:

(i) Gaps between the tank shell and the primary seal shall not exceed 1.3 centimeters (1/2 inch) for a cumulative length of 30 percent of the circumference of the tank, and 0.32 centimeter (1/8 inch) for 60 percent of the circumference of the tank. No gap between the tank shell and the primary seal shall exceed 3.8 centimeters (1-1/2 inches). No continuous gap between the tank shell and the primary seal greater than 0.32 centimeter (1/8 inch) shall exceed 10 percent of the circumference of the tank.

(ii) Gaps between the tank shell and the secondary seal shall not exceed 0.32 centimeter (1/8 inch) for a cumulative length of 95 percent of the circumference of the tank. No gap between the tank shell and the secondary seal shall exceed 1.3 centimeters (1/2 inch).

(iii) Metallic shoe-type seals installed on or after August 1, 1977 shall be installed so that one end of the shoe extends into the stored organic liquid and the other end extends a minimum vertical distance of 61 centimeters (24 inches) above the stored organic liquid surface.

(iv) The geometry of the shoe shall be such that the maximum gap between the shoe and the tank shell is no greater than double the gap allowed by the seal gap criteria specified in clause (c)(1)(A)(i) for a length of at least 46 centimeters (18 inches) in the vertical plane above the liquid surface.

(B) A closure device which uses a resilient toroid-type seal as its primary seal shall comply with the applicable requirements of subparagraph (c)(1)(A).

(C) The primary and secondary seals shall comply with the following requirements:

(i) The primary seal envelope shall be made available for unobstructed inspection by the Executive Officer along its circumference. In the case of riveted tanks with resilient toroid-type seals, at least eight such locations shall be made available; for all other types of seals, at least four such locations shall be made available. If the Executive Officer deems it necessary, further unobstructed inspection of the primary seal may be required to determine the seal's condition along its entire circumference.

(ii) The secondary seal shall be installed in a way that permits the Executive Officer to insert probes up to 3.8 centimeters (1-1/2 inches) in width to measure gaps in the primary seal.

(iii) The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal.

(iv) Notwithstanding the secondary and the primary seal requirements of paragraph (c)(1), a secondary or primary seal may be loosened or removed for preventive maintenance, inspection or repair for a period not exceeding 72 hours with prior notification to the Executive Officer .

(D) All openings in the roof except pressure-vacuum valves, shall provide a projection below the liquid surface to prevent belching, escape, or entrainment of organic liquid, and shall be equipped with a cover, seal or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps, except when the device or appurtenance is in use. Pressure vacuum valves shall be set to within 10 percent of the maximum allowable working pressure of the roof.

(E) There shall be no holes, tears or openings in the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal.

(F) Any emergency roof drain shall be provided with a slotted membrane fabric cover, or equivalent device, that covers at least nine-tenths (9/10) of the area of the opening.

(2) Internal Floating-Type Cover

A fixed roof tank equipped with an internal floating-type cover shall comply with the following requirements:

(A) A fixed roof tank with an existing internal floating-type cover approved by the Executive Officer on or before June 1, 1984, shall comply with the requirements applicable at the time such approval was given.

(B) A fixed roof tank which has an internal floating-type cover installed, modified, or replaced after June 1, 1984, shall have a closure device which consists of either a single liquid mounted primary seal or a primary and a secondary seal. All openings and fittings shall be fully gasketed or controlled in a manner specified by the Executive Officer. The closure device shall control vapor loss with an effectiveness equivalent to a closure device which meets the requirements of subparagraph (c)(1)(A). Seal designs not identified on the current list of seals approved by the Executive Officer shall not be installed or used unless the Executive Officer has given his prior written approval to its installation or use. For purposes of this paragraph, modification includes an identical replacement.

(C) The concentration of organic vapor in the vapor space above the internal floating-type cover shall not exceed 50 percent of its lower explosive limit (LEL) for those installed prior to June 1, 1984 and 30 percent of its LEL for those installed after June 1, 1984. Compliance shall be verified by the use of an explosimeter.

(3) Vapor Recovery System

A fixed roof tank equipped with a vapor recovery system shall comply with the following requirements:

(A) Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a vapor-tight cover which shall be closed at all times except during gauging or sampling. The roof of such tank shall be properly maintained to be vapor tight with no holes, tears or uncovered openings.

(B) All piping, valves and fittings shall be constructed and maintained

in a vapor-tight condition, in accordance with requirements of other District rules for such equipment.

(C) For purposes of this paragraph, the efficiency of a vapor recovery system shall be determined by making a comparison of controlled emissions to those emissions which would occur from a fixed cone roof tank holding the same organic liquid without a vapor control or vapor recovery system. The vapor recovery system shall have an efficiency of at least 95 percent by weight.

(d) Other Performance Requirements

(1) A person shall not place, store or hold gasoline in any tank, with a capacity of between 950 liters (251 gallons) and 75,000 liters (19,815 gallons) unless such tank is equipped with a pressure-vacuum valve which is set to within 10 percent of the maximum allowable working pressure of the container, or is equipped with a vapor loss control device which complies with the requirements set forth in subdivision (c).

(2) The roof of any internal or external floating roof tank shall float on the organic liquid at all times (i.e., free of the roof leg supports) except when the tank is being completely emptied for cleaning, or repair. The process of emptying or refilling, when the roof is resting on leg supports, shall be continuous.

(3) If a tank has been gas-freed and is to be refilled with gasoline, the roof shall be refloated with water or by an equivalent procedure approved by the Executive Officer. Paragraphs (d)(2) and (d)(3) shall be inapplicable to gasoline storage tanks at bulk gasoline distribution terminals which do not have:

(A) existing facilities for treatment of waste water used to refloat the tank roof; or

(B) facilities for equivalent emission control when refloating the roof with organic liquid.

(4) No crude oil containing in excess of 70 ppm by weight of hydrogen sulfide shall be stored in a floating roof tank.

(5) A fixed roof tank with an internal floating-type cover or a tank with an external floating roof cover shall not be used for storing organic liquids

having a true vapor pressure of 11 psia (569 mm Hg) or greater under actual storage conditions.

(6) Replacement of a seal on a floating roof tank shall be allowed only if the replacement seal is chosen from the current list of seals approved by the Executive Officer. Category "A" seals shall be replaced only by Category "A" seals. Category "B" seals shall be replaced only by Category "A" or Category "B" seals. Category "C" seals shall be replaced only by Category "A" or Category "B" seals.

(e) Self-Inspection of Floating Roof Tanks

Any owner or operator of a floating roof tank(s) shall conduct self-inspections of its tank(s) according to the following procedures:

(1) Inspection and Maintenance Plan

(A) On or before September 14, 1994, each owner or operator shall submit an Inspection and Maintenance Plan to the Executive Officer for his/her approval. After September 14, 1994, each owner or operator constructing tank(s) subject to this rule shall submit an Inspection and Maintenance Plan, or a revision of its current Inspection and Maintenance Plan, to the Executive Officer prior to the completion of construction. The Inspection and Maintenance Plan shall include an inventory of tanks subject to this rule, the proposed self-inspection schedule, the number of certified persons to be dedicated to the program, any self-inspection procedures proposed in addition to those required by the District, and a copy of the owner or operator's safety procedures used for floating roof tanks. The tank inventory shall include tank identification number, maximum design capacity, product, shell type, dimensions, seal type and manufacturer, floating roof type, date of construction and location.

(2) Identification Requirements

(A) All tanks subject to this rule shall be clearly and visibly identified by a sign on the outside wall for inventory, inspection and recordkeeping purposes.

(B) Any change(s) in tank identification shall require prior written approval by the Executive Officer.

(3) Owner or Operator Inspection Requirements

(A) All tanks subject to this rule shall be inspected by a certified person twice per year at 4 to 8 months intervals according to the procedures and guidelines set forth in Attachment B - "Inspection Procedures and Compliance Report Form."

(B) The primary and secondary seals shall be inspected by a certified person each time a tank is emptied and degassed. Gap measurements shall be performed on an external floating roof tank when the liquid surface is still but not more than 24 hours after the tank roof is refloated.

(C) The Executive Officer shall be notified in writing at least 2 weeks prior to the start of any tank-emptying or roof-refloating operation for planned maintenance of a tank.

(4) Maintenance Requirements

Any tank which does not comply with any provision of this rule shall be brought into compliance within 72 hours of the determination of non-compliance.

(5) Reporting and Recordkeeping Requirements

(A) All inspections shall be recorded on compliance inspection report forms approved by the Executive Officer as described in Attachment B - "Inspection Procedures and Compliance Report Form."

(B) All compliance inspection reports and documents shall be submitted to the Executive Officer within 5 working days of completion of the self-inspection.

(C) If a tank is determined to be in violation of the requirements of this rule, a written report shall be submitted to the Executive Officer within 120 hours of the determination of non-compliance, indicating corrective actions taken to achieve compliance.

(D) All records of owner or operator inspection and repair shall be maintained at the facility for a period of 3 years and shall be made available to the Executive Officer upon request.

(E) Emissions Reporting

(i) An owner or operator shall provide emissions information in a format consistent with Attachment C to the Executive Officer upon request. The requirement shall apply to all organic liquid storage tanks without regard to exemptions specified in subdivision (f).

(ii) An owner or operator shall provide all upset emissions information associated with product change, repair, and turnover or any other excess emission incidents.

(iii) An owner or operator shall maintain records of emissions data for all organic liquid storage tanks for the most recent two (2) year period.

(f) Exemptions

The provisions of this rule shall not apply to the following tanks, provided the person seeking the exemption supplies proof of the applicable criteria sufficient to satisfy the Executive Officer:

(1) Oil production tanks with a capacity of between 75,000 liters (19,815 gallons) and 159,000 liters (42,008 gallons) which have a properly maintained vapor-tight roof and are equipped with a pressure-vacuum valve which is set within 10 percent of the maximum allowable working pressure of the tank, are exempt from the control requirements of this rule when:

(A) The organic liquid contents fail to comply with paragraph (b) only when heated for shipment, and such heating occurs for not more than 48 hours and not more than once in any 20-day period; or

(B) The tank has a monthly average throughput of not more than 30 barrels of oil per day and was constructed prior to June 1, 1984.

(2) Tanks being brought into compliance within the time period specified in paragraph (e)(4).

(g) Test Methods

(1) Efficiency of a vapor recovery system specified in subparagraph (c)(3)(C) shall be determined according to SCAQMD Test Method 501.1 for the

determination of total organic compound emissions. EPA Methods 25 or 25A may be used, as applicable, in place of SCAQMD Test Method 25.1 specified in Method 501.1. An efficiency determined to be less than established by this rule through the use of any of the above-referenced test methods shall constitute a violation of the rule. Baseline emissions shall be calculated by using the criteria outlined in American Petroleum Institute Bulletin 2518.

(2) Exempt compounds shall be determined according to SCAQMD Test Method 303. For the purpose of testing the efficiency of a vapor recovery system, exempt compounds shall be determined according to EPA Method 18 or ARB Method 422. Any test method(s) for exempt compounds which cannot be identified through these referenced test methods shall be specified by the owner of operator seeking an exemption and shall be subject to approval in accordance with the procedures set forth in paragraph (g)(6).

(3) The Reid vapor pressure specified in paragraph (b)(3) and the Reid vapor pressure used in determining the true vapor pressure limit specified in paragraph (d)(5) shall be determined according to ASTM D-323-82 or California Code of Regulations, Title 13, Section 2297.

(4) Vapor tight condition specified in subparagraphs (c)(3)(A) and (c)(3)(B) shall be determined according to EPA's Reference Method 21 subject to the following limitations:

(A) vapor tight condition shall be determined at a distance of 1 cm. or less from the source ; and

(B) the soap bubble test shall not be used in lieu of quantitative test methods for vapor tightness determination.

(5) The hydrogen sulfide concentration limit specified in paragraph (d)(4) shall be determined according to SCAQMD Method 315.

(6) Alternate test methods which are new methods not previously referenced in this rule, or which involve major changes to a referenced test method, may be used if they are approved in advance as a source-specific SIP revision by the United States Environmental Protection Agency and the California Air Resources Board, and have been authorized by the Executive Officer.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

RULE 463 - ADDENDUM

Storage Temperatures Versus Actual Vapor Pressure
(Gravity/Initial Boiling Points Referenced)

	Reference Property A - °API B - IBP, °F		Temperature, °F Not to Exceed Vapor Pressure	
Organic Liquids	A	B	0.5 psia	1.5 psia
Crude Oils	12	--	--	--
	13	--	120	180
	14	--	85	145
	16	--	60	107
	18	--	55	93
	20	--	52	84
	22	--	49	77
	24	--	45	73
	26	--	42	70
	28	--	40	67
	30	--	38	64
Middle Distillates				
Kerosene	42.5	350	195	250
Diesel	36.4	372	230	290
Gas Oil	26.2	390	249	310
Stove Oil 23	421	275	340	
Jet Fuels				
JP-1	43.1	330	165	230
JP-3	54.7	110	--	25
JP-4	51.5	150	20	68
JP-5	39.6	355	205	260
JP-7	44-50	360	205	260
Fuel Oil				
No. 1	42.5	350	195	250
No. 2	36.4	372	230	290
No. 3	26.2	390	249	310
No. 4	23	421	275	340
No. 5	19.9	560	380	465
No. 6	16.2	625	450	--

RULE 463 - ADDENDUM (Cont.)

Organic Liquids	Reference Property A - °API B - IBP, °F A	B	Temperature, °F Not to Exceed Vapor Pressure 0.5 psia	1.5 psia
Asphalts				
60 - 100 pen.	--	--	490	550
120 - 150 pen.	--	--	450	500
200 - 300 pen.	--	--	360	420
Acetone	47.0	133	--	35
Acrylonitrile	41.8	173	30	60
Benzene	27.7	176	35	70
Carbon Disulfide	10.6 (lb/gal)	116	--	10
Carbon Tetrachloride	13.4	170	30	60
Chloroform	12.5 (lb/gal)	142	--	40
Cylohexane	49.7	177	35	70
1,2 Dichloroethane	10.5 (lb/gal)	180	35	77
Ethyl Acetate	23.6	171	35	70
Ethyl Alcohol	47.0	173	45	83
Isopropyl Alcohol	47.0	181	45	87
Methyl Alcohol	47.0	148	--	50
Methylene Chloride	11.1 (lb/gal)	104	--	70
Methylethyl Ketone	44.3	175	30	70
1,1,1-Trichloroethane	11.2 (lb/gal)	165	60	100
Trichloroethylene	12.3 (lb/gal)	188	50	91
Toluene	30.0	231	73	115
Vinyl Acetate	19.6	163	--	60

ATTACHMENT A

FLOATING ROOF TANK SEAL CATEGORIES

PRIMARY SEALS

Category A	Category B	Category C
1. Liquid mounted multiple wipers with drip curtain and weight	1. Liquid mounted single wiper with drip curtain and weight	1. Liquid mounted single wiper
2. Liquid mounted mechanical shoe	2. Liquid mounted double foam wipers with vapor curtain	2. Liquid mounted foam log
	3. Vapor mounted primary wiper	3. Liquid mounted foam log with vapor curtain
	4. Vapor mounted E wiper	4. Liquid mounted resilient toroid type liquid filled log
	5. Vapor mounted double wipers	5. Vapor mounted foam log/bag
	6. Vapor mounted double foam wipers	6. Vapor mounted foam wiper
	7. Vapor mounted multiple wipers	

SECONDARY SEALS

Category A	Category B	Category C
1. Multiple wipers	1. Single wiper	1. Liquid mounted wiper 2. Foam log/bag 3. Maloney

Criteria used for categorization of floating roof tank seals:

1. Emission control effectiveness design
2. Ability to maintain contact with tank wall
3. Longevity in service

ATTACHMENT B

INSPECTION PROCEDURES AND COMPLIANCE REPORT FORM

Equipment Needed:

Explosimeter (for internal floating roof tanks), liquid resistant measuring tape or device, tank probe (to measure gaps in tank seals - 1/8 inch, 1/2 inch, 1-1/2 inch), flashlight.

Inspection Procedures:

1. The findings of all tank self-inspections, whether completed or not, shall be recorded on the Rule 463 Compliance Report form prescribed by the Executive Officer and submitted to the District's Refinery Section in accordance with the rule's requirements. If an inspection is stopped before completion, indicate the reason for this action in the Comments section of the compliance report form.

2. During compliance inspection, the person(s) conducting the inspection must have a copy of the Permit to Operate or Permit to Construct pertinent to the tank being inspected. Any discrepancies between the permit equipment description and the existing tank or the permit conditions and the actual operating conditions of the tank as verified during inspection must be recorded in the Comments section of the compliance report form.

3. Inspect the ground level periphery of each tank for possible leaks in the tank shell. Complete the tank information section (D) on the report.

4. For external floating roof tanks:

   - o From the platform, conduct an overall visual inspection of the roof and check for obvious permit or rule violations. Record the information as shown under section F of the compliance report form.
   - o During visual inspection of the roof, check for unsealed roof legs, open hatches, open emergency roof drains or vacuum breakers and record the findings on the report accordingly. Indicate presence of any tears in the fabric of both seals.
   - o After the visual inspection, conduct an inspection of the entire secondary seal using the 1/8" and 1/2" probes. Record the gap data in section F(4) of the report.
   - o Conduct an inspection of the entire primary seal using the 1/8", 1/2", and 1 1/2" probes. Inspect the primary seal by holding back the secondary seal. Record the gap data in section F(5) of the report.
   - o Record all cumulative gaps between 1/8 inch and 1/2 inch ; between 1/2 inch and 1-1/2 inch ; and in excess of 1-1/2 inches, for both primary and secondary seals in section G of the report. Secondary seal gaps greater than 1/2 inch should be measured for length and width, and recorded in Comments under section (J) of the report.

5. For internal floating roof tanks:

   - o Using an explosimeter, measure the concentration of the vapor space above the internal floating roof in terms of lower explosive limit (LEL), and record the reading in section (E) of the report.
   - o Conduct a visual inspection of the roof openings and the secondary seal, if applicable, and record findings on the report.

6. Complete all necessary calculations and record all required data accordingly on the report.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

RULE 463 COMPLIANCE REPORT

** *PLEASE COMPLETE FORM LEGIBLY IN BLACK INK* **

Tank No. _____ SCAQMD Permit No. _____ Inspection Date _____ Time _____

Is This a Follow-up Inspection? No [ ] Yes [ ] If yes, Date of Previous Inspection _____

A. COMPANY INFORMATION:

Company Name _____

Location Address _____ City _____ Zip _____

Mailing Address _____ City _____ Zip _____

Contact Person _____ Title _____

Phone _____

B. INSPECTION CONDUCTED BY:

Name _____ Title _____

Company Name _____ Phone _____

Mailing Address _____ City _____ Zip _____

C. TANK INFORMATION:

Capacity _____(bbls) Installation Date _____ Tank Diameter _____ (ft) Tank Height _____ (ft)

Product Type _____ Product RVP _____ If Crude, H_2S Content _____ (ppm- weight)

Type of Tank: Riveted [ ] Welded [ ] Other [ ] (describe) _____

Color of Shell _____ Color of Roof _____

Roof Type: Pontoon [ ] Double Deck [ ] Other (describe) _____

External floating roof [ ] Internal floating roof [ ]

D. GROUND LEVEL INSPECTION:

1) Product Temperature _____ °F 2) Product Level _____ (ft)

3) List type and location of leaks found in tank shell.

_____

4) List any discrepancies between the existing equipment and the equipment description on the Permit.

_____

5) Is tank in compliance with Permit conditions? No [ ] Yes [ ]. If no, explain:

_____

_____

E. INTERNAL FLOATING ROOF TANK:

1) Check vapor space between floating roof and fixed roof with explosimeter. _____ % LEL

2) Conduct visual inspection of roofs and secondary seals, if applicable.

3) Are all roof openings covered? No [ ] Yes [ ]. If no, explain in Comments section (J) and proceed to part H (6).

F. EXTERNAL FLOATING ROOF TANK:

1) On the diagram (below) indicate the location of the ladder, roof drain(s), anti-rotation device(s), platform, gauge well, and vents or other appurtenances. *Note information in relation to North (to the top of the worksheet).*

2) Describe any uncovered openings found on the roof in the Comments section (J). (Refer to Rule 463 (a)(1)(F)):

3) Identify any tears in the seal fabric. Describe and indicate on diagram (below) :

_____

_____

_____

4) Secondary Seal Inspection

a) Type of Secondary Seal: _____

b) Does 1/2" probe drop past seal? No [ ]; Yes [ ] - if yes, measure length(s) and show on diagram

c) Does 1/8" probe drop past seal? No [ ]; Yes [ ] - if yes, measure length(s) and show on diagram.

d) Record dimensions of gap for gaps > 1/8" _____ > 1/2" _____

NOTE: Record the actual width and cumulative length of gaps in feet and inches.

(Do not include gaps > 1/2" in 1/8" measurements)

5) Primary Seal Inspection

a) Type of Primary Seal: [ ] Shoe; [ ] Tube; [ ] Other _____

b) (shoe seal) does 1 1/2" probe drop past seal? No [ ]; Yes [ ] - if yes, measure length(s) and show on diagram

c) (shoe seal) does 1/2" probe drop past seal? No [ ]; Yes [ ] - if yes, measure length(s) and show on diagram.

d) (tube seal) does 1/2" probe drop past seal? No [ ]; Yes [ ] - if yes, measure length(s) and show on diagram.

e) (all seal types) does 1/8" probe drop past seal? No [ ]; Yes [ ] - if yes, measure length(s) and show on diagram.

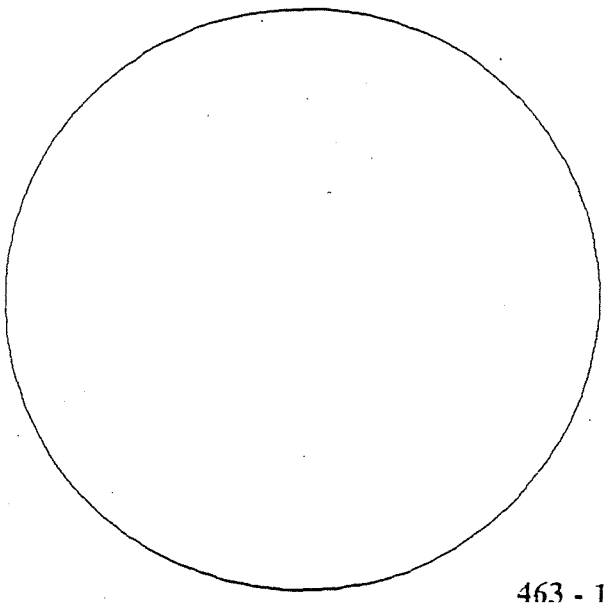
f) Record dimensions of gaps for gaps > 1/8" _____ > 1/2" _____

> 1 1/2" _____ *NOTE: Record the actual width and cumulative length of gaps in feet and inches.*

(Do not include gaps > 1/2" in 1/8" measurements, or gaps > 1 1/2" in 1/2" measurements)

NOTE: Show defects using symbols. Show seal gaps and lengths.

N



LEGEND:

Equipment:

..... Antirotational device
..... Gauge well
⊤ ..... Leg stand
..... Roof drain
* ..... Emergency roof drain
ø ..... Vacuum breaker
▲ ..... Vent
..... Platform & ladder

Defects:

..... Leg top
‖ ..... Leg pin
..... Open hatch
\/\ ..... Torn seal
|-P-| .... Primary seal gap
|-S-| . Secondary seal gap

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

RULE 463 COMPLIANCE REPORT

** *PLEASE COMPLETE FORM LEGIBLY IN BLACK INK* **

Tank No. _____ SCAQMD Permit No. _____

IF INTERNAL FLOATING ROOF TANK, PROCEED TO PART H (6).

G. CALCULATIONS - complete all applicable portions of the following:

Record dimensions of indicated gaps [from F(4)(d), F(5)(b), and F(5)(f)]. Record in feet and inches.

Gaps in primary seal between 1/8 and 1/2 inch: _____

Gaps in primary seal between 1/2 and 1 1/2 inch: _____

Gaps in primary seal greater than 1 1/2 inches: _____

Gaps in secondary seal between 1/8 and 1/2 inch: _____

Gaps in secondary seal greater than 1/2 inch: _____

Multiply diameter (ft) of tank to determine appropriate gap limits:

5% circumference = diameter X 0.157 = _____ 60 % circ. = diam. X 1.88 = _____

10% circumference = diameter X 0.314 = _____ 90 % circ. = diam. X 2.83 = _____

30% circumference = diameter X 0.942 = _____ 95 % circ. = diam. X 2.98 = _____

H. DETERMINE COMPLIANCE STATUS OF TANK:

1) Were any openings found on the roof? No [ ] Yes [ ]

2) Were any tears in the seals found: No [ ] Yes [ ]

3) Is the product level lower than the level at which the roof would be floating? No [ ] Yes [ ]

4) Secondary Seal:

Did 1/2" probe drop between shell and seal? No [ ] Yes [ ]

Did cumulative 1/8"-1/2" gap exceed 95% circumference length? No [ ] Yes [ ]

5) Primary Seal:

Shoe - Did 1 1/2" probe drop between shell and seal? No [ ] Yes [ ]

Did cumulative 1/2"-1 1/2" gap exceed 30% circumference length, and

Did cumulative 1/8"-1/2" gap exceed 60% circumference length? No [ ] Yes [ ]

Did any <u>single continuous</u> 1/8" - 1 1/2" gap exceed 10% circ. length? No [ ] Yes [ ]

Tube - Did 1/2" probe drop between shell and seal? No [ ] Yes [ ]

Did cumulative 1/8"-1/2" gap exceed 95% circumference length? No [ ] Yes [ ]

6) Internal floating roof (*installed before 6/1/84*) did LEL exceed 50%? No [ ] Yes [ ]

(*installed after 6/1/84*) did LEL exceed 30%? No [ ] Yes [ ]

7) Does tank have permit conditions? No [ ] Yes [ ]

Does tank comply with these conditions? No [ ] Yes [ ].

I. IF INSPECTION WAS TERMINATED PRIOR TO COMPLETION FOR ANY REASON, PLEASE EXPLAIN:

_____

_____

J. COMMENTS:

Use this section to complete answers to above listed items and to describe repairs made to the tank; include date and time repairs were made.

K. *I(we) certify the foregoing information to be correct and complete to the best of my(our) knowledge.*

Inspection completed by: _____ (signature) _____ (Certification ID #) Date: _____

Compliance status by: _____ (signature) _____ (Certification ID #) Date: _____

Company Representative: _____ (signature) _____ (Certification ID #) Date: _____

SEND COMPLETED REPORT (Both Sheets) TO:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
17215 Studebaker Rd., Suite 320
Cerritos, CA. 90701-2538 FAX: (310) 403-6034
Attn: Rule 463 Program Supervisor

FOR SCAQMD USE ONLY: Date received _____

Reviewed by: _____ (signature) _____ (Certification ID #) Date reviewed _____

Tank Status: [ ] in compliance [ ] in violation, Rule(s) _____

Comments: _____

ATTACHMENT C

DATA REPORTING REQUIREMENT FOR ROOF TANKS

The data items shall include, but not be limited to, the following:

A. External Floating Roof Tank

1. Tank I.D.
2. Product Code
3. Type of Floating Roof Seal
4. Shell Construction
5. Reid Vapor Pressure
* 6. Average Stock Storage Temperature
7. True Vapor Pressure
8. Tank Diameter
* 9. Wind Speed Exponent
* 10. Average Wind Velocity
* 11. Seal Factor
* 12. Product Factor
* 13. Vapor Molecular Weight
* 14. Clingage Factor
15. Throughput
* 16. Density of Liquid Stock
17. Total Number of Different Type of Fitting
18. Total Roof Fitting Loss Factor
19. Vapor Pressure Function
20. Roof Fitting Loss
21. Standing Loss
22. Withdrawal Loss
23. Total Loss
24. Number of Excess Upset Emissions Incidents
25. Total Excess Upset Emissions

B. Internal Floating Roof Tank

1. Tank I.D.
2. Product Code
3. Type of Floating Roof Seal
4. Shell Construction
5. Reid Vapor Pressure
* 6. Average Stock Storage Temperature
7. True Vapor Pressure
8. Tank Diameter
* 9. Wind Speed Exponent
* 10. Average Wind Velocity
* 11. Seal Factor
* 12. Product Factor
* 13. Vapor Molecular Weight
* 14. Clingage Factor
15. Throughput
* 16. Density of Liquid Stock
* 17. Number of Columns
* 18. Effective Column Diameter
19. Total Number of Different Types of Fittings
* 20. Total Deck Fitting Loss Factor
21. Vapor Pressure Function
* 22. Deck Seam Length Factor
* 23. Deck Seam Loss per Unit
24. Deck Seam Loss
25. Deck Fitting Loss
26. Standing Loss
27. Withdrawal Loss
28. Total Loss
29. Number of Excess Upset Emissions Incidents
30. Total Excess Upset Emissions

C. Fixed Roof Tank

1. Tank I.D.
2. Product Code
3. Vent Type to Vapor Recovery System
* 4. Average Stock Storage Temperature
5. True Vapor Pressure
6. Tank Diameter
* 7. Vapor Molecular Weight
8. Average Outage
* 9. Average Daily Temperature Change
10. Throughput
11. Turnover Factor
* 12. Turnovers Per Year
* 13. Adjustment Factor for Small Tank
* 14. Paint Factor
* 15. Crude-Oil Factor (Breathing)
* 16. Crude-Oil Factor (Working)
17. Breathing Loss
18. Working Loss
19. Total Loss (Without Vapor Recovery)
* 20. Vapor Recovery System Efficiency
21. Total Loss (With Vapor Recovery)
22. Number of Excess Upset Emissions Incidents
23. Total Excess Upset Emissions

*** Default values are available from the District**

The Data format and order shall be specified and approved by the Executive Officer.

Appendix A
SAMPLE ORGANIC LIQUID STORAGE TANKS
ANNUAL EMISSIONS SAMPLE DATA REPORTING REQUIREMENTS
External Floating Roof Tank

File Name: 800070_A.XLS

	A	B	C	D	E	F	G	H	I	J	K	L
1	TANK I.D.	PRODUCT CODE	TYPE OF FLOATING ROOF SEAL	SHELL CONSTRUCTION	REID VAPOR PRESSURE	AVE. STOCK STOR. TEMP.	TRUE VAPOR PRESSURE	TANK DIAMETER	WIND SPEED EXP.	AVE. WIND VELOCITY	SEAL FACTOR	PRODUCT FACTOR
2					psi	F	psia	feet		mile/hour		
3	1	6	1C	W	2	68	1.1	80	1	6.8	0.2	0.4
4	2	3	1C	W	0.03	68	0.01	95.5	1	6.8	0.2	1
5	3	9	1C	W	0	68	0	95.5	1	6.8	0.2	1
6	4	3	1C	W	0.03	68	0.01	90	1	6.8	0.2	1
7	25	5	4A	R	0.2	68	0.01	117.2	1.5	6.8	1.3	1
8	26	5	1A	W	0.2	68	0.01	120	1.5	6.8	1.2	1
9	27	9	1A	W	0	99	0	120	1.5	6.8	1.2	1

	M	N	O	P	Q	R	S	T	U	V
1	VAPOR MOLECULAR WEIGHT	CLINGAGE FACTOR	THROUGHPUT	DEN. OF LIQUID STOCK	TOTAL NO. OF DIFF. TYPE OF FITTING	TOTAL ROOF FITTING LOSS FACTOR	VAPOR PRESSURE FUNCTION	ROOF FITTING LOSS	STANDING LOSS	WITHDRAWAL LOSS
2	lb/lb Mole	bbl/1000 sq. ft.	bbl/year	lb/gal		lb-mole/year		lbs/year	lbs/year	lbs/year
3	50	0.6	334914	7.1	3	147.3	2	55	42	168
4	130	0.15	234841	7.1	3	152.3	0	3	3	25
5	190	0.15	73651	7.9	3	152.3	0	0	0	9
6	130	0.15	151702	7.1	3	146.6	0	3	2	17
7	130	0.15	184615	7	3	158.6	0	3	60	16
8	130	0.15	2223784	7	3	162.1	0	3	19	183
9	190	0.15	773173	7.9	2	162.1	0	0	0	72

	W	X	Y
1	TOTAL LOSS	NO. OF EXCESS UPSET INCIDENTS	TOTAL UPSET EMISSIONS
2	lbs/year		lbs/year
3	265	0	0
4	30	2	0.1
5	9	0	0
6	22	0	0
7	79	0	0
8	206	0	0
9	73	0	0

Appendix B
SAMPLE ORGANIC LIQUID STORAGE TANKS
ANNUAL EMISSIONS SAMPLE DATA REPORTING REQUIREMENTS
Internal Floating Roof Tank

File Name: 800070_B.XLS

	A	B	C	D	E	F	G	H	I	J	K	L
1	TANK I.D.	PRODUCT CODE	TYPE OF FLOATING ROOF SEAL	SHELL CONSTRUCTION	REID VAPOR PRESSURE	AVE. STOCK STOR. TEMP.	TRUE VAPOR PRESSURE	TANK DIAMETER	WIND SPEED EXP.	AVE. WIND VELOCITY	SEAL FACTOR	PRODUCT FACTOR
2					psi	F	psia	feet		mile/hour		
3	12	2	5A	W	3.4	140	6.2	64	0	6.8	3	0.4
4	13	2	6A	W	3.4	140	6.2	64	0	6.8	6.7	0.4

	M	N	O	P	Q	R	S	T	U	V
1	VAPOR MOLECULAR WEIGHT	CLINGAGE FACTOR	THROUGHPUT	DEN. OF LIQUID STOCK	NO. OF COLUMNS	EFFECTIVE COLUMN DIAMETER	TOTAL NO. OF DIFF. TYPE OF FITTING	TOTAL DECK FITTING LOSS FACTOR	VAPOR PRESSURE FUNCTION	DECK SEAM LEN. FACTOR
2	lb/lb Mole	bbl/1000 sq. ft.	bbl/year	lb/gal		feet		lb-mole/year		1/ft
3	50	0.006	466095	7.1	1	1	0	105	0.14	0
4	50	0.006	466095	7.1	1	1	0	210	0.14	0

	W	X	Y	Z	AA	AB	AC	AD
1	DECK SEAM LOSS PER UNIT	DECK SEAM LOSS	DECK FITTING LOSS	STANDING LOSS	WITHDRAWAL LOSS	TOTAL LOSS	NO. OF EXCESS UPSET INCIDENTS	TOTAL UPSET EMISSIONS
2	lb-mole/ft year	lbs/year	lbs/year	lbs/year	lbs/year	lbs/year		lbs/year
3	0	0	286	523	297	1106	0	0
4	0	0	571	1167	297	2035	0	0

Appendix C
SAMPLE ORGANIC LIQUID STORAGE TANKS
ANNUAL EMISSIONS SAMPLE DATA REPORTING REQUIREMENTS
Fixed Roof Tank

File Name: 800144_C.XLS

	A	B	C	D	E	F	G	H	I	J	K
1	TANK I.D.	PRODUCT CODE	VENT TYPE TO VAPOR RECOVERY SYSTEM	AVE. STOCK STOR. TEMP.	TRUE VAPOR PRESSURE	TANK DIAMETER	VAPOR MOLECULAR WEIGHT	AVE. OUTAGE	AVE. DAILY TEMP. CHANGE	THROUGHPUT	TURNOVER FACTOR
2				F	psia	feet	lb/lb Mole	feet	F	bbl/year	
3	210	9	N	99.99	0	120	190	14	16	300027	1
4	285	9	N	99.99	0	35	190	0	16	151414	1
5	286	9	N	99.99	0	35	190	0	16	151414	1
6	294	9	V	68	0	120	190	20	16	505615	1

	L	M	N	O	P	Q	R	S	T
1	TURNOVERS PER YEAR	ADJ. FACTOR FOR SMALL TANK	PAINT FACTOR	CRUDE OIL FACTOR (BREATHING)	CRUDE-OIL FACTOR (WORKING)	BREATHING LOSS	WORKING LOSS	TOTAL LOSS (W/O VAPOR RECOVERY)	VAPOR RECOVERY SYSTEM EFFICIENCY
2						lbs/year	lbs/year	lbs/year	
3	4	1	1	1	1	56	3	60	0
4	30	1	1	1	1	0	2	2	0
5	30	1	1	1	1	0	2	2	0
6	6	1	1	1	1	68	6	74	95

	U	V	W
1	TOTAL LOSS (W/ VAPOR RECOVERY)	NO. OF EXCESS UPSET EMISSIONS INCIDENTS	TOTAL UPSET EMISSIONS
2	lbs/year		lbs/year
3	60	0	0
4	2	0	0
5	2	0	0
6	4	0	0

(Adopted May 7, 1976)(Amended September 1, 1978)(Amended April 6, 1979)
(Amended April 4, 1980)(Amended December 7, 1990)

RULE 464. WASTEWATER SEPARATORS

(a) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) WASTEWATER SEPARATOR is a wastewater treatment equipment used to separate petroleum-derived compounds from wastewater, which includes separator basins, skimmers, grit chambers, and sludge hoppers.

(2) WASTEWATER SEPARATOR FOREBAY is that section of a gravity-type separator which (a) receives the untreated, contaminated wastewater from the preseparator flume, and (b) acts as a header which distributes the influen4 to the separator channels.

(b) Requirements

(1) A person shall not use any compartment of any vessel or device operated for the recovery of oil or tar from effluent water from any equipment which processes, refines, stores or handles petroleum or coal tar products unless such compartment is equipped with one of the following vapor loss control devices:

(A) a solid cover with all openings sealed and totally enclosing the liquid contents of the compartment; or

(B) a floating pontoon or double-deck type cover, equipped with closure seals that have no tears or leaks, installed and maintained so the gaps between the compartment wall and the seal shall not exceed 0.32 centimeter (1/8 inch) for an accumulative length of 97 percent of the perimeter of the compartment. No gap between the compartment wall and the seal shall exceed 1.3 centimeters (1/2 inch).

(2) Any gauging and sampling device in the compartment cover shall be equipped with a cover or lid. The cover shall be in a closed position at all times, except when the device is in actual use. There shall be no visible gaps between the cover and the compartment when the cover is closed.

(3) All wastewater separator forebays shall be covered.

(4) Skimmed oil or tar removed from wastewater separating devices shall be either charged to process units with feed or transferred to a container

approved by the Executive Officer. A Permit to Operate issued for the container in such service shall be considered to be approval by the Executive Officer.

(c) Exemptions

This rule shall not apply to:

(1) gravity type wastewater separators used exclusively in conjunction with the production of crude oil if the water fraction of the wastewater entering the separator contains less than 5 ppm hydrogen sulfide, organic sulfides, or a combination thereof, and less than 100 ppm ammonia.

(2) all units which handle only coal tar products with a true vapor pressure of less than 10 mm Hg (0.2 pound per square inch) at 60°F.

(3) any compartment of a wastewater separator for which the operator has demonstrated to the satisfaction of the Executive Officer that compliance with section (b) will cause the value of

$$\frac{A}{f \times V}$$ to exceed 420, where

A is the area to be covered in square feet.

V is the oil recovery rate in gallons/day on an annual basis.

f is the estimated fractional volume loss of oil and is computed as:

$$f = - 0.0663 + 0.000319 \times (\text{annual mean ambient temperature, } ^oF) - 0.000286 \times (10\% \text{ true boiling point, } ^oF) + 0.00215 \times (\text{annual average influent temperature, } ^oF)$$

The provisions of subsection (c)(3) shall not apply to coal tar wastewater separators.

ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

RULE 468
Sulfur Recovery Units

(Adopted: 05/07/76; Amended: 10/08/76)

A person shall not discharge into the atmosphere from any sulfur recovery unit producing elemental sulfur, effluent process gas containing more than:

a. 500 ppm of sulfur compounds expressed as sulfur dioxide, calculated on a dry basis averaged over a minimum of 15 consecutive minutes.

b. 10 ppm of hydrogen sulfide averaged over a minimum of 15 consecutive minutes and calculated on a dry basis.

c. 90 kilograms (198.5 pounds) per hour of sulfur compounds expressed as sulfur dioxide. Any sulfur recovery unit having an effluent process gas discharge containing less than 5 kilograms (11.0 pounds) per hour of sulfur compounds expressed as sulfur dioxide may dilute to meet the provision of subsection (a) above until October 1, 1976.

[SIP: Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(ii)(C); Approved 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(37)(i)(A)]

~~RULE 468. Sulfur Recovery Units (Revised 10/8/76)~~

2/10/7

~~A person shall not discharge into the atmosphere from any sulfur recovery unit producing elemental sulfur, effluent process gas containing more than:~~

~~(a) 500 ppm of sulfur compounds expressed as sulfur dioxide, calculated on a dry basis averaged over a minimum of 15 consecutive minutes.~~

~~(b) 10 ppm of hydrogen sulfide averaged over a minimum of 15 consecutive minutes and calculated on a dry basis.~~

~~(c) 90 kilograms (198.5 pounds) per hour of sulfur compounds expressed as sulfur dioxide.~~

~~Any sulfur recovery unit having an effluent process gas discharge containing less than 5 kilograms (11.0 pounds) per hour of sulfur compounds expressed as sulfur dioxide may dilute to meet the provision of subsection (a) above until October 1, 1976.~~

RULE 469. Sulfuric Acid Units (Revised 10/8/76)

A person shall not discharge into the atmosphere from any sulfuric acid unit, effluent process gas containing more than:

(a) 500 ppm of sulfur compounds expressed as sulfur dioxide, calculated on a dry basis averaged over a minimum of 15 consecutive minutes.

(b) 90 kilograms (198.5 pounds) per hour of sulfur compounds expressed as sulfur dioxide.

8/2/78

RULE 470. Asphalt Air Blowing

A person shall not operate or use any equipment for the air blowing of asphalt less all gases, vapors and gas-entrained effluents from such equipment are:

(a) Incinerated at temperatures of not less than 760°C (1400°F) for a period of not less than 0.3 second, 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 subsection (a).

2/2/76

8/2/76

RULE 472. Reduction of Animal Matter

(a) A person shall not operate or use any equipment for the reduction of animal matter unless all gases, vapors and gas-entrained effluents from such equipment are:

(1) Incinerated at temperatures of not less than 650°C (1202°F) for a period of not less than 0.3 second, or

(2) 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 (1) above.

(b) 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 by the Air Pollution Control Officer, for indicating temperature, pressure or other operating conditions.

(c) The provisions of this rule shall not apply to any equipment used exclusively for the processing of food for human consumption.

11/13/75

South Coast
3/1/82

~~Proposed~~ Amended Rule 474 - Fuel Burning Equipment - Oxides of Nitrogen

~~November 9, 1981~~
December 4, 1981

(a) A person shall not discharge into the atmosphere from any non-mobile fuel burning equipment, oxides of nitrogen, expressed as nitrogen dioxide (NO_2), calculated at three percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes, in excess of the concentrations shown in the following table:

	Maximum Gross Heat Input Rate in Millions Per Hour					
Fuel	Kilogram-Calories	British Thermal Units	Kilogram-Calories	British Thermal Units	Kilogram-Calories	British Thermal Units
	140 or more but less than 450	555 or more but less than 1786	450 or more but less than 540	1786 or more but less than 2143	540 or more	2143 or more
Gas	300 ppm NO_x		225 ppm NO_x		125 ppm NO_x	
Liquid or Solid	400 ppm NO_x		325 ppm NO_x		225 ppm NO_x	

~~The emission limitations for equipment with a maximum gross heat input from at least 140 but less than 450 million kilogram calories (555 but less than 1786 million BTU) per hour shall not be effective until January 1, 1977.~~

(b) A person shall not discharge into the atmosphere from any steam generating equipment, oxides of nitrogen expressed as nitrogen dioxide (NO_2), calculated at three percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes, in excess of the concentrations shown in the following table:

Fuel	Maximum Gross Heat Input Rate in Millions Per Hour	
	Kilogram-Calories	British Thermal Units
	140 or more	555 or more
Gas	125 ppm NO_x	
Liquid or Solid	225 ppm NO_x	

The provisions of this subsection shall be effective only in San Bernardino and Riverside Counties.

(c) When more than one type of fuel is used, the allowable concentration shall be determined by proportioning the gross heat input for each fuel to its respective allowable concentration.

(d) Notwithstanding the provisions of subsection (a), a person operating a supercritical steam generating unit with a maximum gross heat input exceeding 2143 million BTUs per hour may discharge oxides of nitrogen into the atmosphere not to exceed 400 ppm calculated at three percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes during the pressure ramp periods of the boiler startup operations.

(e) For the purpose of this rule, :

(1) Fuel burning equipment shall be comprised of the minimum number of boilers, furnaces, jet engines or other fuel burning equipment, the simultaneous operations of which are required for the production of useful heat or power.

(2) A supercritical steam generating unit is a steam boiler which normally operates above the water critical temperature (705°F) and critical pressure (3210 psia) where water can exist only in the gaseous phase.

(3) Pressure ramps are two steam pressure build-up periods, after a heat-soak period at 400 psia in the startup of a supercritical steam generating unit:

(A) Low pressure, 400 psia to 1000 psia, and

(B) High pressure, 1000 psia to 3500 psia.

Rule 475 Rule 413 Electric power generating equipment

(a) A person shall not discharge into the atmosphere from any equipment having a maximum heat input rate of more than 12.5 million kilogram calories (50 million BTU) per hour used to produce electric power, for which a permit to build, erect, install or expand is required after May 7, 1976, air contaminants that exceed the following: 2/10/7

(1) Oxides of nitrogen, expressed as nitrogen dioxide (NO_2), calculated at 3 percent oxygen on a dry basis averaged over a minimum of 15 minutes, as shown in the following table:

Fuel	Gas	Liquid	Solid
Concentration	80 ppm NO_x	160 ppm NO_x	225 ppm NO_x

When more than one type of fuel is used, the allowable concentration shall be determined by proportioning the gross heat input and allowable concentration of each fuel.

(2) Combustion contaminants that exceed both of the following two limits:

(A) 5 kilograms (11 pounds) per hour.

(B) 23 milligrams per cubic meter (0.01 gr/SCF) calculated at 3 percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes.

(b) A person shall not discharge into the atmosphere from any gas turbine, installed and placed into operation after January 1, 1970, having a maximum heat input rate of more than 12.5 million kilogram calories (50 million BTU) per hour and used to produce electric power, combustion contaminants that exceed both of the following two limits:

(1) 5 kilograms (11 pounds) per hour.

(2) 23 milligrams per cubic meter (0.01 gr/SCF) calculated at 3 percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes

(c) For the purpose of this rule, equipment used to produce electric power shall be comprised of the minimum number of boilers, furnaces, jet engines or other fuel burning equipment, the simultaneous operations of which are required for the production of useful electric power.

(d) Nothing in this rule shall be construed as preventing the maintenance or preventing the alteration or modification of existing electric power generating equipment which will not increase the mass rate of air contaminant emissions.

ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

RULE 476
Steam Generating Equipment

(Adopted May 7, 1976)(Amended October 8, 1976)

(a) A person shall not discharge into the atmosphere from any equipment having a maximum heat input rate of more than 12.5 million kilogram calories (50 million BTU) per hour used to produce steam, for which a permit to build, erect, install or expand is required after May 7, 1976, air contaminants that exceed the following:

1. Oxides of nitrogen, expressed as nitrogen dioxide (NO2), calculated at three percent oxygen on a dry basis averaged over a minimum of 15 minutes, as shown in the following table:

Fuel	Gas	Liquid or Solid
Concentration	125 ppm NO_x	225 ppm NO_x

   When more than one type of fuel is used, the allowable concentration shall be determined by proportioning the gross heat input and allowable concentration of each fuel.

2. Combustion contaminants that exceed both of the following two limits:

   A. 5 kilograms (11 pounds) per hour.

   B. 23 milligrams per cubic meter (0.01 gr/SCF) calculated at three percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes.

(b) Nothing in this rule shall be construed as preventing the maintenance or preventing the alteration or modification of existing steam generating equipment which will not increase the mass rate of air contaminant emissions.

[SIP: Submitted as amended 10/8/76 on 11/26/96; Approved 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(ii)(C); Approved 6/14/78, 43 FR 25684, 40 cFR 52.220(c)(37)(i)(A)]

ADOPTED 10/7/77
AMENDED 12/2/77
AMENDED 5/5/78

1/2/79

RULE 481. Spray Coating Operations

(a) A person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

(1) The spray coating equipment is operated inside a control enclosure which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.

(2) Coatings are applied with electrostatic and/or airless spray equipment.

(3) A method of application or control is used which has an effectiveness equal to or greater than the equipment specified in Subsection (a)(1) or (a)(2) of this rule.

(b) The provisions of this rule shall not apply to:

(1) Spray coating of three gallons per day or less of coatings at a single location.

(2) Spray coating of a dwelling and its appurtenances by the owner or occupant of a four-family dwelling or less.

(3) Spray coating of lacquers on cabinets and wood and simulated-wood surfaces, adhesives, fiberous coatings, abrasive materials,

portland cement mixtures, elastomers, stains, metal surface primers, or textured coatings, provided such spray coating cannot be conducted inside a control enclosure.

(4) Spray coating for construction or maintenance purposes of: structural steel; pipes, valves and flanges six inches in diameter or less; ornamental objects on buildings, structures and their appurtenances; or aircraft ground support equipment which cannot fit inside of a spray enclosure with effective internal dimensions of 10'W x 25'L x 8' H.

(5) Spray coating of catalyzed epoxy or polyurethane primers or coatings on large aerospace subassemblies or completed vehicles where the stage of assembly precludes placement inside a control enclosure.

(6) Any control enclosure connected to an external air pollution control device with a control efficiency equivalent to the filters specified in Subsection (a) (1) of this rule and which has been approved by the Executive Officer.

(**Adopted:** 5/6/77; **Amended:** 6/2/78; **Amended:** 4/4/80; **Amended:** 7/9/82; **Amended:** 9/8/95; **Amended:** 6/13/97; **Amended:** 1/20/98; **Amended:** 07/18/00: **Amended**: 04/15/14)

RULE 701
Air Pollution Emergency Contingency Actions

(A) General

(1) The purpose of this rule is to:

(a) Define air pollution Episode criteria;

(b) Provide for Episode notification to the public;

(c) Recommend precautionary actions to be taken during Episodes; and

(d) Prevent or reduce the severity of Episodes.

(2) Applicability

(a) This rule shall apply to all persons within the jurisdiction of Antelope Valley Air Quality Management District (AVAQMD) and shall also specify the measures to be taken by AVAQMD during air pollution Episodes

(B) Definitions

For the purpose of this rule, the following definitions apply:

(1) "Air Contaminant or Air Pollutant" - Any discharge, release, or other propagation into the atmosphere and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids or any combination thereof.

(2) "Air Pollution Control Officer" (APCO) – The person appointed to the position of Air Pollution Control Officer of AVAQMD pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

(3) "Air Quality Index" (AQI) - The uniform reporting system established by the U.S. Environmental Protection Agency (USEPA) to make air pollution reports more easily understood by the public. The AQI simplifies information by converting units of air pollution measurement into a uniform scale from 0 to 500.

(4) "Child Day Care Facility" - A State licensed child day care, pre-school, or after-school program.

(5) "Declared Episode" - Exists whenever the APCO determines:

(a) That any of the applicable Episode criteria levels specified in this rule have been attained; or

(b) That it is likely that any of the applicable Episode criteria levels specified in this rule is imminent to be attained that day.

(6) "Electric Power Generating System" - All boiler and approved alternative resources owned or operated by, and approved alternative resources and replacement units under contract to sell power to, any one of the following: Southern California Edison, Los Angeles Department of Water and Power, or any of their successors.

(7) "Employee" – Any person employed by a person(s), firm, business, educational institution, non-profit agency or corporation, government or other entity. The term exempts seasonal employees, temporary employees, volunteers, field personnel, field construction workers, and independent contractors.

(8) "Episodes" - The intermediate levels between the National Ambient Air Quality Standard and the Level of Significant Harm for Air Pollutants at which some pollution abatement or health notification action must be taken. The applicable Episode criteria, by pollutant and averaging period established by the USEPA and the California Air Pollution Emergency Plan, are presented in Attachment 2.

(9) "Essential Public Service":

(a) A sewage treatment facility which is publicly owned and operated consistent with an approved regional growth plan;

(b) A prison;

(c) Police or fire fighting operations;

(d) Schools, hospitals, or ambulance operations;

(e) Construction and operation of a landfill gas control or processing facility;

(f) Water delivery operations;

(g) Public or private utility operations responding to public emergencies or utility outages, excluding routine maintenance,

(h) Public transit; or

(i) U.S. Postal Service Operations.

(10) "Fleet Vehicles" - Motor vehicles as defined by the Motor Vehicle Code Division 1, Section 415 of the State of California Vehicle Code and operated from one business address.

(11) "Force Majeure Natural Gas Curtailment" - An interruption in natural gas service due to unforeseeable failure, malfunction, or natural disaster, not resulting from an intentional or negligent act or omission on the part of the owner or operator of a boiler, or a supply restriction resulting from California Public Utility Commission (CPUC) priority allocation system of CPUC Rule 23, such that the daily fuel needs of a boiler cannot be met with the natural gas available.

(12) "News Media" - The written press, television, radio, and other mass media of communication such as on-line computer information services.

(13) "Outdoor Activity Curtailment Actions" - Measures, as presented in Attachment 1, to reduce outdoor activities by children during periods when air quality exceeds the Health Advisory Episode level for ozone or the Stage 1 Episode for all other pollutants for which Episode criteria are defined.

(14) "Predicted Episode" - Exists whenever the APCO determines that it is likely that any of the Episode levels specified in this Rule will be reached during the following day.

(15) "School" - Public and private educational institutions for children ranging from grades Kindergarten through 12.

(16) "Upset of Production" - A situation in which the process throughput or production rate is reduced by more than 20 percent of normal daily operations as a direct result of reducing emissions in order to comply with this regulation for Stage 2 or Stage 3 Episodes.

(17) "Volatile Organic Compound" (VOC) – Any compound of carbon which may participate in such atmospheric photochemical reactions and contribute to the formation of photochemical smog, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and those exempt compounds listed in 40 CFR 51.100(s)(1).

(18) "Wildland Vegetative Management Burning" - The use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass or standing brush as defined by Title 17, California Administrative Code, Section 80100.

(C) Facility Requirements

(1) The following actions are required for the owner or operator of any facility which has actual emissions of 91 metric tons (100 tons) or more per year of either VOCs, oxides of nitrogen (NO_x), or oxides of sulfur (SO_x), and are encouraged for all other emitters of these pollutants:

(a) Upon notification of a predicted Stage 2 or Stage 3 Episode either from the APCO or via the News Media, reduce combined emissions for VOCs, NO_x, and SO_x, by at least 20 percent of normal weekday operations.

(b) Upon notification by the APCO of the declaration of an air pollution state of emergency by the Governor, take the applicable actions which the Governor requires.

(2) The following actions are required for any facility having 100 or more Employees:

(a) Upon notification of a predicted Stage 2 or 3 Episode either from the APCO or via the News Media, post at least one sign in a conspicuous place designating the Predicted Episode stage and requesting ridesharing and telecommuting.

(b) Upon notification of a predicted Stage 2 or Stage 3 Episode either from the APCO or via the News Media, reduce Fleet Vehicle miles traveled by at least 20 percent of normal week day operations.

(c) Upon notification by the APCO of the declaration of an air pollution state of emergency by the Governor, take the applicable actions which the Governor requires.

(3) All facilities subject to subsections (C)(1) or (C)(2) are encouraged to develop and maintain an internal plan to meet the specified requirements.

(4) Upon a predicted Stage 2 or Stage 3 Episode, an owner or facility shall maintain a log of the actions taken to meet the requirements in subsections (C)(1) or (C)(2).

(5) Facilities required to implement Stage 2 or Stage 3 actions shall implement such actions by at least just after midnight (00:01 hours standard time) or upon commencement of normal business hours on the day for which an Episode is predicted.

(6) Liquid or solid fossil fuel shall not be burned in Electric Power Generating Systems on predicted or declared Stage 2 or Stage 3 Episode days of ozone, sulfur dioxide, sulfur dioxide plus ozone, or sulfates in combination with ozone unless a Force Majeure Natural Gas Curtailment is in effect.

(D) AVAQMD Requirements

(1) Measurements

(a) The APCO shall maintain air monitoring stations throughout AVAQMD so that air quality can be monitored on a continuous basis and air pollution Episodes can be measured and predicted. Air quality information will be reported daily using the AQI.

(2) Episode Notifications by the APCO

(a) The APCO shall notify the California Air Resources Board and the News Media (e.g. those media in each county determined to be most likely to result in widespread public knowledge) whenever an Episode is predicted, declared, or terminated.

(b) The APCO may notify directly or shall otherwise rely on the News Media to disseminate to the following whenever an Episode is predicted, declared, or terminated:

(i) School officials;
(ii) Local and state law enforcement agencies;
(iii) Public safety personnel who have responsibilities for or interest in air pollution control;
(iv) All facilities or activities subject to subsections (C)(1) or (C)(2).

(c) The APCO shall announce the prediction of an Episode not later than 2:00 pm (4:30 pm for sulfate portion of ozone/sulfate Episode) of the day before the Episode is predicted to occur.

(d) A declared or Predicted Episode shall be terminated whenever the Air Contaminant which caused the Episode has been verified by the APCO to be below the applicable Episode criteria set forth for the calling of such Episode and the available scientific and meteorological data indicate that the concentration of such Air Contaminant will not likely increase again within the next hour so as to reach the previously attained Episode.

(e) The notice of an Episode shall include the following:

(i) Stage level and predicted duration.
(ii) The affected source and receptor areas.
(iii) Air Contaminants for which the Episode is declared.
(iv) The AQI value for the Air Pollutant with the highest predicted or actual AQI reading and associated health message.

(3) Upon the declaration of any Predicted or attained Episode, the APCO shall take the following actions:

(a) For Ozone Health Advisories Only:

(i) Recommend as part of the notification required by subsection (D)(2) that Schools and Child Day Care Facilities take the actions specified in Attachment 1, paragraph (b);
(ii) Recommend as part of the notification required by subsection (D)(2) to the public that individuals with special health problems follow the precautions recommended by their physicians or health officials;
(iii) By means of a telephone recorded message, notify members of the public who contact the AVAQMD.

(b) For Stage 1 Episodes:

(i) Recommend as part of the notification required by subsection (D)(2) that Schools and Child Day Care Facilities take the actions specified in Attachment 1, paragraph (c);
(ii) Take the actions specified in subsections (D)(3)(a)(ii) and (iii);
(iii) Encourage the public to reduce unnecessary driving;
(iv) Encourage the public to ride share;
(v) Encourage employers to limit the amount of time their Employees work outdoors to the degree practicable.

(c) For Stage 2 and Stage 3 Episodes:

(i) Recommend as part of the notification required by subsection (D)(2) that Schools and Child Day Care Facilities take the actions specified in Attachment 1, paragraph (d);
(ii) Take the actions specified in subsections (D)(3)(b)(ii) through (v);
(iii) Within the receptor area(s) of the Episode:
a. Recommend the suspension of programs which involve the physical exertion by participants using public parks or public recreation facilities;
b. Recommend that all non-emergency driving be discontinued as soon as possible.
(iv) The APCO shall implement source inspections upon a Predicted Episode.

(E) Special Actions for Wildland Vegetative Management Burning

(1) Upon declaration of any predicted Stage 2 or Stage 3 Episode, all Wildland Vegetative Management Burning is prohibited.

(2) Upon the declaration of any attained Stage 2 or Stage 3 Episode, all Wildland Vegetative Management Burning, if already ignited, shall be terminated.

(F) Interdistrict Coordination

Upon request of an air pollution control officer in an adjoining air basin for action to abate Stage 2 or Stage 3 Episodes occurring within that district, the APCO shall make a determination, and if the need for action is confirmed, direct the implementation of the actions required in this Rule for any significant source area identified within the District which contributes to the ongoing Episode in the adjoining district. Sources in that area shall comply as though an Episode has been declared in their area.

(G) Exemptions

(1) Percentage emissions reductions or percentage reductions in vehicle miles traveled lower than those specified in section (C) shall be allowed by the APCO:

(a) If the facility submits a letter to the APCO, not later than 30 days following a predicted Stage 2 or Stage 3 Episode, demonstrating at least one of the following conditions:

(i) That meeting the stated percentage reductions jeopardizes public health or safety,

(ii) That meeting the stated percentage reductions damages equipment or creates an Upset of Production, or

(b) The facility or activity is an Essential Public Service.

(2) Buses, commuter van pool vehicles or other vehicles, used exclusively for multi-passenger commuting between home and the place of work or School are excluded from the Fleet Vehicle reduction provisions of subsection (C)(2)(b).

Programs that include adult participants in scheduled athletic events with paid attendance are exempted from subsection (D)(3)(c)(iii)a..

[SIP: See SIP Table at
http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921]

ATTACHMENT 1
OUTDOOR ACTIVITY CURTAILMENT ACTIONS

State and federal guidance identifies the following actions that Schools and Child Day Care Facilities can take to curtail outdoor activities to reduce or minimize children's exposure to air pollution:

(a) For periods of unhealthful air quality (exceeding the federal clean air standards):

(1) Susceptible individuals, e.g. children with heart or lung disease:
Minimize outdoor activity.

(2) Healthy individuals with a noticeable adverse health response to existing conditions:
Minimize outdoor activity.

(b) For Health Advisory Episodes (applies only to Ozone and $PM_{2.5}$):

(1) All children:
Discontinue prolonged, vigorous outdoor exercise lasting longer than one hour.

(2) Susceptible persons, such as those with heart or lung disease:
Avoid outdoor activity.

(3) Examples of the kinds of outdoor activities that should be avoided are calisthenics, basketball, running, soccer, football, tennis, swimming laps, water polo.

(c) For Stage 1 Episodes:

(1) All children:
Discontinue all vigorous outdoor activities regardless of duration.

(2) Outdoor physical education (PE) classes, sports practices, and athletic competitions should be re-scheduled or canceled if practicable.

(d) For Stage 2 or Stage 3 Episodes:

(1) All children:
Discontinue all outdoor activities.

ATTACHMENT 2
EPISODE CRITERIA

For the purpose of Rule 701, the following Episode criteria shall apply:

Air Contaminant	Averaging Time	Health Advisory	Stage 1	Stage 2	Stage 3
Ozone	1 Hour	0.15 ppm	0.20 ppm	0.35 ppm	0.50 ppm
Ozone, Combination w/ Sulfur Dioxide	1 Hour		0.20 ppm*	0.35 ppm*	0.50 ppm*
Carbon Monoxide	1 Hour		40 ppm	75 ppm	100 ppm**
	8 Hours***		15 ppm	30 ppm	40 ppm
Sulfur Dioxide	1 Hour		0.5 ppm	1.0 ppm	2.0 ppm
	24 Hours***		0.2 ppm	0.6 ppm	0.8 ppm
Sulfate, in Combination with Ozone	24 Hours*** (Sulfate)			25 ug/m^3	
	1 Hour (Ozone)			0.20 ppm	
Nitrogen Dioxide	1 Hour		0.6 ppm	1.2 ppm	1.6 ppm
	24 Hours***		0.15 ppm	0.3 ppm	0.4 ppm
Particulate Matter ($PM_{2.5}$)	24 Hours***	35.5 µg/m^3	55.5 µg/m^3	150.5 µg/m^3	250.5 µg/m^3

* These levels shall apply when the ozone concentration and the sulfur dioxide concentration each exceeds 0.10 ppm, one-hour average, and shall be determined by adding the ozone and sulfur dioxide concentration.** For one hour and predicted to persist for one additional clock hour. *** Averaging time is based on a running clock hourly average.

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5/13/91

(Adopted January 6, 1978)(Amended August 3, 1979)(Amended July 11, 1980)
(Amended August 3, 1990)(Amended December 7, 1990)

RULE 1102. PETROLEUM SOLVENT DRY CLEANERS

(a) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) CONSUMED SOLVENT is the amount of solvent purchased and emitted to the atmosphere in that year.

(2) EXEMPT COMPOUNDS are any of the following compounds which have been determined to be non-precursors of ozone:

(A) Group I (General)

chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)

(B) Group II (Under Review)

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (CFC-23)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC115)

The Group II compounds may have restictions on their use because they are toxic or potentially toxic, upper atmosphere ozone depleters, or cause other environmental impacts. The District Board has adopted a policy which states that chlorofluorocarbons (CFC) will be phased out at the earliest practicable date on or before 1997.

(3) PETROLEUM SOLVENT is a petroleum distillate that exists as a liquid under standard conditions.

(4) PETROLEUM SOLVENT DRY CLEANING FACILITY is any facility engaged in the cleaning of fabrics or leather using petroleum solvent. The facility includes, but is not limited to, washers, extractors, dryers, filters, purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves.

(5) SOLVENT RECOVERY DRYER is a class of dry-cleaning dryers that employs a condenser to liquefy and recover solvent vapors evaporated in a closed-loop, recirculating stream of air.

(6) TRANSFER CART is a cart or container used for the transfer of wet fabrics from the washer to the dryer that has a lid and walls which are impervious to the solvent, and is equipped with drains that drain solvent into closed containers.

(7) VOLATILE ORGANIC COMPOUND (VOC) is any chemical compound containing the element carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, methane, and exempt compounds.

(b) Operating Requirements

A person shall not operate any petroleum solvent dry-cleaning facility unless:

(1) there is no liquid leaking in a continuous flow, or in a visible mist, or at the rate of three drops per minute or more from any portion of the equipment.

(2) all washer lint traps, button traps, access doors, and other parts of the equipment where solvent may be exposed to the atmosphere are kept closed at all times except when required for proper operation or maintenance.

(3) the still residue is stored in sealed containers.

(4) the dry-cleaning facility is equipped with one of the following filtering systems:

(A) cartridge filters containing paper or carbon or a combination thereof, which are fully drained in the filter housing for at least 12 hours before removal; or

(B) any other type of filtering system or process that reduces the VOC content in all filtration wastes to 1.0 kilogram or less per 100 kilograms dry weight of articles dry-cleaned before disposal.

(5) articles which have been dry-cleaned are transferred to the dryer within five minutes after they are removed from the washer, or are stored in closed transfer carts.

(6) all solvents are stored in closed containers.

(7) the solvent recovery dryer remains closed and the recovery phase continues until there is no visible flow in the sight glass of the condenser for at least one minute.

(8) all petroleum solvent leaks are repaired within three working days.

(c) Control Equipment Requirements

A person shall not operate any petroleum solvent dry-cleaning facility unless:

(1) overall solvent consumption is less than 4.5 kilograms per 100 kilograms of articles dry-cleaned for those facilities that do not have a still, or 6.5 kilograms per 100 kilograms of articles dry-cleaned for those facilities that do have a still; and

(2) a solvent recovery dryer or an equivalent control device that reduces VOC emissions from drying tumblers and cabinets by at least 90 percent by weight is installed.

(d) Recordkeeping Requirements

(1) The owner or operator shall maintain records of:

(A) pre-washed weight of articles,

(B) all solvent purchases and inventory of solvent.

(2) All records shall be maintained pursuant to Rule 109.

(e) Test Methods

EPA Test Method 25 or SCAQMD Test Method 25.1 (March 1989), shall be used to determine compliance with this rule. Emissions determined to exceed limits established by this rule through the use of either of the above referenced test methods shall constitute a violation of this rule.

(f) Compliance Schedule

(1) All petroleum solvent dry-cleaning facilities consuming more than 10,000 liters (2,642 gallons) of solvent per year shall comply with the provisions of this rule.

(2) Effective January 1, 1992, petroleum solvent dry-cleaning facilities consuming more than 5,000 liters (1,320 gallons) of solvent per year shall comply with the provisions of this rule.

(3) Effective January 1, 1993 all petroleum solvent dry-cleaning facilities shall comply with the provisions of this rule.

(g) Increments of Progress

In order to comply with the compliance dates specified in paragraph (f), an owner or operator of a petroleum solvent dry-cleaning facility shall comply with the following increments of progress schedule.

(1) Twelve months prior to the effective dates, submit to the Executive Officer an application for Permit to Construct, describing at a minimum, the steps that will be taken to achieve compliance with the provision of paragraph (c) of this rule.

(2) Eight months prior to the effective dates, initiate on-site construction or installation of the equipment to reduce or control emissions.

(3) Upon the effective dates, complete on-site construction or installation of equipment to reduce or control emissions, and assure final compliance with the provisions of paragraph (c) of this rule.

5/13/91

(Adopted June 6, 1980)(Amended February 13, 1981)
(Amended April 2, 1982)(Amended April 3, 1987)
(Amended December 7, 1990)

RULE 1102.1. PERCHLOROETHYLENE DRY CLEANING SYSTEMS

(a) Definitions

For the purpose of this rule, the following definition shall apply:

DRY CLEANING FACILITY is any facility engaged in the cleaning of fabrics or leather using one or more washes in perchloroethylene solvent, extracting excess solvent by spinning, and drying by tumbling in an airstream. The facility includes, but is not limited to, washers, dryers, filter and purification systems, waste disposal systems, holding tanks, pumps and attendant piping and valves.

(b) Operating Requirements A person shall not operate any perchloroethylene dry cleaning facility unless:

(1) there is no liquid leaking in a continuous flow, or in a visible mist, or at the rate of three drops per minute or more from any portion of the equipment.

(2) all washer lint traps, access doors, and other parts of this equipment where perchloroethylene may be exposed to the atmosphere are kept closed at all times, except when required to be open for proper operation or maintenance.

(3) backwash from all filters, other than diatomaceous earth types, is treated in a still or muck cooker so that the perchloroethylene content of the residue does not exceed 60 percent, by weight.

(4) backwash from all diatomaceous earth type filters is treated in a still or muck cooker so that the residue contains no more than 25 percent perchloroethylene, by weight.

(5) cartridge-type filters are drained in the filter housing for at least 24 hours before discarding the cartridges or for at least 12 hours, provided that drained cartridges are dried in a dryer which is equipped with perchloroethylene control equipment approved by the Executive Officer.

(6) all waste containing perchloroethylene is stored in sealed containers and disposed in accordance with local, state, and federal regulations.

c) Control Equipment Requirements

A person shall not operate any perchloroethylene dry cleaning facility unless all vents from dry cleaning equipment and floor pickups are vented through a control device

approved in writing by the Executive Officer. The control equipment shall meet one of the following conditions.

(1) The concentration of perchloroethylene at the outlet of a carbon adsorber shall not exceed 100 ppm as measured over a period of one minute before dilution; or

(2) The air temperature at the outlet of a refrigerated condenser must reach 45°F or less during the cool-down period. A temperature gauge with a minimum range from OOF to 150°'F must be installed on the condenser outlet duct; or

(3) The demonstrated control efficiency for any other control device must be 90 percent or greater, by weight, prior to the discharge to the atmosphere measured over a complete control cycle, based upon the amount of perchloroethylene entering the control device.

(d) Recordkeeping Requirements

A person operating a perchloroethylene daily cleaning facility shall maintain daily records of perchloroethylene purchase and use, and equipment maintenance and repair information. Records shall be maintained at the facility for at least two years and be made available to the District upon request.

(e) Test Methods

Efficiency of the control device shall be determined according to EPA Method 18.

(f) Compliance Determination

Compliance with liquid leak requirements in subparagraph (b)(1) of this rule shall be determined by means of visual inspection of the following components:

(1) hose connection, union, coupling and valves;
(2) machine door gaskets and seatings;
(3) filter head gasket and seating;
(4) pumps;
(5) base tanks and storage container;
(6) water separators;
(7) filter sludge recovery;
(8) distillation unit;
(9) diverter valves;
(10) saturated lint from lint basket; and
(11) cartridge filters.

(g) Exemptions

The provisions of paragraph (c) shall not apply to facilities using less than 1,210 liters (320 gallons) per year of perchloroethylene.

10-25-91

(Adopted April 7, 1978)(Amended December 7, 1984)(Amended May 5, 1989)
(Amended March 2, 1990)(Amended December 7, 1990)(Amended March 1, 1991)

RULE 1104. WOOD FLAT STOCK COATING OPERATIONS

(a) Applicability

This rule applies to all persons applying coatings, inks, and adhesives to wood flat stock for the purpose of manufacturing a finished wood panel intended for attachment to the inside walls of buildings, including, but not limited to, homes and office buildings, mobile homes, trailers, prefabricated buildings and similar structures, boats, and ships; or a finished exterior wood siding intended for use in construction.

(b) Definitions

For the purpose of this rule the following definitions shall apply:

(1) ADHESIVE is any substance that is capable of bonding surfaces together by attachment.

(2) CLEAR TOPCOAT means a coating which contains resins and binders but not opaque pigments, and which is specifically formulated to form a transparent or translucent solid protective film.

(3) COATING is a material which is applied to a surface and which forms a film in order to beautify and/or protect such surface, which includes, but is not limited to, water repellent preservatives, semitransparent stains, opaques stains, filler, and clear top coat.

(4) DIP COATER is to dip an object into a vat of coating material and drain off any excess coating.

(5) ELECTROSTATIC APPLICATION is charging of atomized paint droplets for deposition by electrostatic attraction.

(6) EXEMPT COMPOUNDS are any of the following compounds that have been determined to be non-precursors of ozone:

(A) Group I (General)

chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)

(B) Group II (Under Review)

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (FC-23)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The Group II compounds may have restrictions on their use because they are toxic or potentially toxic, or upper-atmosphere ozone depleters, or cause other environmental impacts. The District Board has adopted a policy which states that chlorofluorocarbons (CFC) will be phased out at the earliest practicable date on or before 1997.

(7) EXTERIOR WOOD SIDING is a wood or wood-containing board having a flat surface for use in commercial or residential construction, generally as a covering for an outside wall.

(8) FILLER is a semisolid viscous material used to fill voids.

(9) FLOW COATER is to coat an object by flowing a stream of coating over an object and draining off any excess coating.

(10) GRAMS OF VOC PER LITER OF COATING, ADHESIVES, OR INKS, LESS WATER AND LESS EXEMPT COMPOUNDS is the weight of VOC per combined volume of VOC and coating solids, and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Adhesives, or Inks, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:
W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters

(11) HAND APPLICATION METHODS is the application of coatings, sealants, or adhesives by manually held, non-mechanically-operated

equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

(12) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY EQUIPMENT is used to spray a coating by means of a gun that operates between 0.1 and 10 pounds per square inch gauge (psig) air pressure.

(13) INK is any fluid or viscous composition used in printing, impressing, or transferring an image onto a panel.

(14) OPAQUE STAINS are all stains not classified as semitransparent stains.

(15) PANEL is a flat piece of wood or wood-containing products, usually rectangular, and is attached to the inside walls of homes, office buildings, mobile homes, trailers, prefabricated buildings and similar structures, boats, and ships.

(16) PERSON is any firm, business establishment, association, partnership, corporation, or individual, whether acting as principal, agent, employee, or other capacity, including any governmental entity or charitable organization.

(17) ROLL COATER is a series of mechanical rollers that forms a thin coating film on the surface of roller, which is applied to a substrate by moving the substrate underneath the roller.

(18) SEMITRANSPARENT STAINS are coatings which are formulated to change the color of a surface but not conceal the surface.

(19) VOLATILE ORGANIC COMPOUND (VOC) is any volatile chemical compound that contains the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

(20) WATER-REPELLENT PRESERVATIVE is a penetrating coating designed to protect bare wood from mildew, decay, insect attack, and water staining.

(21) WOOD FLAT STOCK is defined as wood panels and exterior wood siding, which include, by way of illustration and not limitation, redwood, cedar or plywood stocks, plywood panels, particle boards, composition hard boards, and any other panels or siding constructed of solid wood or a wood-containing product.

(c) Requirements

Any person applying a coating, ink, or adhesive to wood flat stock shall comply with all of the following requirements:

(1) Process Requirements

(A) Use only wood flat stock coatings and adhesives for wood panels which contain no more than 250 grams of volatile organic compounds per liter of coating or adhesive, less water and exempt compounds (2.1 pounds per gallon).

(B) Use only wood flat stock inks for wood panels which contain no more than 300 grams of volatile organic compounds per liter of ink, less water and exempt compounds (2.5 pounds per gallon).

(C) Use only wood flat stock coatings for exterior wood siding, which contain no more than 350 grams of volatile organic compounds per liter of coating, less water and exempt compounds (2.9 pounds per gallon).

(2) Application Methods

On or after January 1, 1992, no owner or operator shall apply coatings, adhesives, or inks unless these materials are applied with properly operating equipment, according to operating procedures specified by the equipment manufacturer or the Executive Officer or his designee, and by the use of one of the following methods:

(i) Flow Coater, Roll Coater, or Dip Coater; or

(ii) Hand Application Methods; or

(iii) High-Volume, Low Pressure (HVLP) or Electrostatic Application

(3) Control Equipment Requirements

Any person owning or operating control equipment system, in association with a wood flat stock coating operation, may comply with provisions of subparagraph (c)(1) by using approved control equipment system provided that the VOC emissions from such operations or materials, or both, are reduced in accordance with the following provisions:

(A) The control device shall reduce emissions from an emission collection system by at least 95 percent, by weight, or the output of the air pollution control device is less than 50 ppm calculated as carbon.

(B) The emission collection system shall collect at least 90 percent, by weight, of the emissions generated by the sources of emissions.

(d) Recordkeeping Requirements

Notwithstanding provisions of paragraph (g), records shall be maintained pursuant to Rule 109 - Recordkeeping for Volatile Organic Compound Emissions.

(e) Compliance Test Methods

(1) The VOC content of materials subject to the provisions of this rule shall be determined by EPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A). The exempt compounds' content shall be determined by SCAQMD Laboratory Methods of Analysis for Enforcement Samples - Section III, Method 22.

(2) The efficiency of the control device and the VOC content measured and calculated as carbon in the control device exhaust gases shall be determined by EPA Test Methods 25 and 25A, or SCAQMD Method 25.1 (March 1989) (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon).

(3) The collection efficiency of the fugitive emissions will be determined pursuant to EPA's "Guidelines For Developing Capture Efficiency Protocols."

~~(e)~~(f) Alternative Emission Control Plan

Any person may achieve compliance with requirements of paragraph (c) by means of an Alternative Emission Control Plan pursuant to Rule 108 - Alternative Emission Control Plans.

(g) Exemptions

(1) Laminating of fiberglass, metal, or plastic sheets to wood panels that is subject to the provisions of Rule 1168 - Control of Volatile Organic Compound Emissions from Adhesive Application.

(2) Coating of wood panels for furniture end use that is subject to the provisions of Rule 1136 - Wood Products Coatings.

(3) Coating of wood panels for aircraft that is subject to the provisions of Rule 1124 - Aerospace Assembly and Component Manufacturing Operations.

9.14.92

(Adopted May 1, 1992)

RULE 1106.1. PLEASURE CRAFT COATING OPERATIONS

(a) Applicability

This rule is applicable to all coating operations of pleasure craft, as defined in paragraph (b)(12) of this rule, or their parts and components, for the purpose of refinishing, repairing, modification, or manufacturing such craft. This rule shall also apply to establishments engaged in activities described in the United States Office of Management and Budget's 1987 Standard Industrial Classification Manual, under Standard Industrial Classification (SIC) codes 3732 - Boat Building and Repairing and 4493 - Marinas. Pleasure craft coating operations which are subject to the requirements of this rule shall not be subject to the requirements of Rule 1106 - Marine Coating Operations.

(b) Definitions

For purposes of this rule, the following definitions shall apply:

(1) AEROSOL COATING is a hand-held, nonrefillable container which expels pressurized product ingredients by means of a propellant.

(2) ANTIFOULANT COATING is any coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms, and registered with the United States Environmental Protection Agency (EPA) as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136).

(3) CLEAR WOOD FINISHES are clear and semi-transparent topcoats applied to wood substrates to provide a transparent or translucent film.

(4) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I (General)

chlorodifluoromethane (HCFC-22)
trifluoromethane (HFC-23)
dichlorotrifluoroethane (HCFC-123)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
pentafluoroethane (HFC-125)
1,1,1,2-tetrafluoroethane (HCFC-134)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HFC-142b)

1,1,1-trifluoroethane (HCFC-143a)
1,1-difluoroethane (HFC-152a)
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
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II

methylene chloride
1,1,1-trichloroethane (TCA or methyl chloroform)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
trichlorotrifluoroethane (CFC-113)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

Use of Group II compounds or carbon tetrachloride may be restricted in the future because they are either toxic, potentially toxic, or are upper atmospheric ozone depleters, or cause other environmental impacts. Specifically, the District Board has established a policy to phase out chlorofluorocarbons (CFC) on or before 1997.

(5) EXTREME HIGH GLOSS COATING is any coating which achieves at least 95 percent reflectance on a 60° meter when tested by ASTM Method D 523-89.

(6) FINISH PRIMER/SURFACER is a coating applied with a wet film thickness of less then 10 mils prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promotion of a uniform surface necessary for filling in surface imperfections.

(7) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS is the weight of VOC per combined volume of VOC and coating solids and which is calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters

(8) HAND-APPLICATION METHODS are the methods used to apply coating to substrate by manually held, non-mechanically operated equipment. Such equipment includes, but is not limited to, paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

(9) HIGH BUILD PRIMER/SURFACER is a coating applied with a wet film thickness of 10 mils or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, or a moisture barrier, or promoting a uniform surface necessary for filling in surface imperfections.

(10) HIGH GLOSS COATING is any coating which achieves at least 85 percent reflectance on a 60° meter when tested by ASTM D 523-89.

(11) HIGH-VOLUME, LOW PRESSURE (HVLP) SPRAY is a coating application system which is operated between 0.1 and 10 pounds per square inch gauge (psig) flow pressure at the air cap/tip of the spray gun.

(12) PLEASURE CRAFT are vessels which are manufactured or operated primarily for recreational purposes, or leased, rented, or chartered to a person or business for recreational purposes. The owner or operator of such vessels shall be responsible for certifying that the intended use is for recreational purposes.

(13) PLEASURE CRAFT COATING is any marine coating, except unsaturated polyester resin (fiberglass) coatings, applied by brush, spray, roller, or other means to pleasure craft.

(14) PRETREATMENT WASH PRIMER is a coating which contains no more than 12 percent solids, by weight, and at least 1/2 percent acids, by weight; is used to provide surface etching; and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.

(15) SEALER is a low viscosity coating applied to bare wood to seal surface pores to prevent subsequent coatings from being absorbed into the wood.

(16) TEAK PRIMER is a coating applied to teak or previously oiled decks in order to improve the adhesion of a seam sealer to wood.

(17) TOPCOAT is any final coating applied to the interior or exterior of a pleasure craft.

(18) VARNISHES are clear wood topcoats formulated with various resins to dry by chemical reaction on exposure to air.

(19) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound which contains the element carbon, excluding methane, carbon dioxide, carbon monoxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

(c) Requirements

(1) VOC Content

(A) Within the District, a person shall not sell, offer for sale, solicit, apply, or require any other person to use in the District any pleasure craft coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter of coating applied, less water and exempt solvents:

COATING	VOC LIMIT		
	On or After 4/6/92	On or After 9/1/92	On or After 7/1/94
Topcoats			
Extreme High Gloss		650	490
High Gloss	420	420	420
Pretreatment Wash Primers	780	780	780
Finish Primer/Surfacer		600	420
High Build Primer Surfacer		420	340

COATING	VOC LIMIT		
	On or After 4/6/92	On or After 9/1/92	On or After 7/1/94
Teak Primer		775	775
Antifoulant Coatings			
Aluminum Substrate		560	560
Other Substrates	440	400	150
Clear Wood Finishes			
Sealers		550	550
Varnishes		490	490
Others		420	420

In the case of any coating sold, offered for sale, or solicited for use, this prohibition shall only apply where it is designated anywhere on the container by any sticker or label affixed thereto, or where it is indicated in any sales or advertising literature, that the coating may be used as, or is suitable for use as, a pleasure craft coating.

(B) This section shall not apply to pleasure craft coatings sold, offered for sale, or solicited, for shipment or use outside of this District or for shipment to other manufacturers for repackaging.

(2) On or after July 1, 1993, a person shall not apply coatings subject to this rule unless the coating is applied by use of one of the following methods:

(A) Hand Application Methods, or

(B) High Volume, Low Pressure (HVLP) Spray, or

(C) such other alternative spray application method as is demonstrated, in accordance with the provisions of paragraph (e)(2), to be capable of achieving equivalent or better transfer efficiency than the application method listed in subparagraph (c)(2)(B), and for which written approval of the District's Executive Officer has been obtained to use this method.

(3) Prior to September 1, 1994, the sale or application of a coating which fails to meet the VOC limits set forth in paragraph (c)(1) shall not constitute a violation of that paragraph, provided that it is manufactured more than 90 days prior to September 1, 1992. Further, it shall not constitute a violation

of paragraph (c)(1) for any coating to be sold or applied prior to July 1, 1996, provided that it is manufactured more than 90 days prior to July 1, 1994, and the coating meets the VOC limits applicable as of September 1, 1992. This subparagraph does not apply to any coating which fails to display on the product container or package the date on which the product was manufactured, or a code indicating such date. The manufacturer of coatings supplied in containers using a coded dating system shall file with the District's Executive Officer an explanation of each code.

(4) On or after July 1, 1992, solvent cleaning of coating application equipment referenced in paragraph (c)(2), parts, products, tools, machinery, equipment, and general work areas, and the storage and disposal of VOC-containing materials used in solvent cleaning operations, shall be carried out in accordance with Rule 1171 (Solvent Cleaning Operations).

(5) On and after January 1, 1997, a person shall not apply pleasure craft coatings subject to the requirements of this rule with a coating containing carbon tetrachloride or any of the Group II exempt compounds listed in subparagraph (b)(4)(B) except methylene chloride.

(d) Recordkeeping Requirement

Records shall be maintained in accordance with Rule 109.

(e) Compliance Test Methods

For purposes of this rule, the following test methods shall be used:

(1) VOC Content

(A) The VOC content of coatings shall be determined by:

(i) EPA Reference Method 24, (40 Code of Federal Regulations, Part 60, Appendix A). The exempt solvent content shall be determined by SCAQMD Method 19 and 22 (SCAQMD "Laboratory Method of Analysis for Enforcement Samples" manual); or

(ii) SCAQMD Methods 16 - Determination of Volatile Organic Compounds (VOC) in Various Materials, 17 - Density of Paint, Varnish, Lacquer and Related Products, 19 - Determination of Exempt Compounds, 22 - Distillation of Solvents from Paints,

Coatings and Inks, and 24 - Water in Paints and Paint Materials by Karl Fisher Method (SCAQMD "Laboratory Method of Analysis for Enforcement Samples" manual).

(B) VOC content determined to exceed the limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of this rule.

(2) Transfer Efficiency Demonstration

Compliance with subparagraph (c)(2)(C) shall be determined by the procedures described in SCAQMD's "Spray Equipment Transfer Efficiency Test Procedure For Equipment User, May 24, 1989."

(3) Acid Content in Coatings

The percent acid by weight of pretreatment wash primers shall be determined by ASTM D 1613-85 - Acidity in Volatile Solvents and Chemical Intermediates Used in Paints, Varnishes, Lacquers, and Related Products.

(4) The following classes of compounds: 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 sulfur bonds only to carbon and fluorine, will be analyzed as exempt compounds for compliance with subdivision (c), only at such time as manufacturers specify which individual compounds are used in the coating formulations and identify the test methods, which prior to such analysis, have been approved by the USEPA and the SCAQMD, that can be used to quantify the amounts of each exempt compound.

(f) Exemptions

(1) The provisions of this rule shall not apply to the use of aerosol coatings.

(2) Prior to July 1, 1996, the provisions of paragraphs (c)(1) and (c)(3) shall not apply to the sale of separate reactive resins, commonly known as catalysts.

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(Adopted June 1, 1979)(Amended December 4, 1981)(Amended May 7, 1982)
(Amended December 2, 1983)(Amended March 2, 1984)(Amended January 9, 1987)
(Amended June 5, 1987)(Amended May 5, 1989)(Amended March 2, 1990)
(Amended November 2, 1990)(Amended August 2, 1991)(Amended May 12, 1995)

RULE 1107. COATING OF METAL PARTS AND PRODUCTS

(a) Purpose and Applicability

The purpose of Rule 1107 is to reduce volatile organic compound (VOC) emissions from the coating of metal parts and products. This rule applies to all metal coatings operations except those performed on aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) AIR-DRIED COATING is a coating that is cured at a temperature below 90°C (194°F).

(2) BAKED COATING is a coating that is cured at a temperature at or above 90°C (194°F).

(3) CAMOUFLAGE COATING is a coating used, principally by the military, to conceal equipment from detection.

(4) CAPTURE EFFICIENCY is the percentage of volatile organic compounds used, emitted, evolved, or generated by the operation, that are collected and directed to an air pollution control device.

(5) COATING is a material which is applied to a surface and which forms a continuous film in order to beautify and/or protect such surface.

(6) CONTRACT PAINTER is a non-manufacturer of metal parts and products who applies coatings to such products at his facility exclusively under contract with one or more parties that operate under separate ownership and control.

(7) ELECTRIC-INSULATING VARNISH is a non-convertible-type coating applied to electric motors or components of electric motors.

(8) ETCHING FILLER is 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.

(9) EXEMPT COMPOUNDS are any of the following compounds:

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(A) Group I
trifluoromethane (HFC-23)
chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)
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
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II
methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (FC-23)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. The Group II compounds may have restrictions on their use because they are toxic or potentially toxic, or are upper-atmosphere ozone depleters, or cause other environmental impacts. By January 1, 1996, production of chlorofluorocarbons (CFC), 1,1,1-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulation Title 40, Part 82 (December 10, 1993).

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(10) EXTREME HIGH-GLOSS COATING is a coating which, when tested by the American Society for Testing Material Test Method D-523 adopted in 1980, shows a reflectance of 75 or more on a 60° meter.

(11) EXTREME-PERFORMANCE COATING is a coating used on a metal surface where the coated surface is, in its intended use subject to the following:

(A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution; or

(B) Repeated exposure to temperatures in excess of 250° F; or

(C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.

(12) GRAMS OF VOC PER LITER OF COATING LESS WATER AND LESS EXEMPT COMPOUNDS is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds $= \dfrac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters

(13) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and can be calculated by the following equation:

Grams of VOC per Liter of Material $= \dfrac{W_s - W_w - W_{es}}{V_m}$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters

(14) HAND APPLICATION METHODS is the application of coatings by manually held nonmechanically operated equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

(15) HEAT-RESISTANT COATING is a coating that must withstand a temperature of at least 400°F during normal use.

(16) HIGH-PERFORMANCE ARCHITECTURAL COATING is a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association's publication number AAMA 605.2-1980.

(17) HIGH-TEMPERATURE COATING is a coating that is certified to withstand a temperature of 1000°F for 24 hours.

(18) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a coating application system which is operated at air pressure between 0.1 and 10 pounds per square inch gauge (psig).

(19) INK is a fluid that contains dyes and/or colorants and is used to make markings but not to protect surfaces.

(20) MAGNETIC DATA STORAGE DISK COATING is a coating used on a metal disk which stores data magnetically.

(21) METAL PARTICLES are pieces of an elemental pure metal or a combination of elemental metals.

(22) METAL PARTS AND PRODUCTS are any components or complete units fabricated from metal, except those subject to the coating provisions of other source specific rules of Regulation XI.

(23) METALLIC COATING is a coating which contains more than 5 grams of metal particles per liter of coating, as applied.

(24) MILITARY SPECIFICATION COATING is a coating applied to metal parts and products and which has a paint formulation approved by a United States Military Agency for use on military equipment.

(25) MOLD-SEAL COATING is the initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

(26) MOTOR VEHICLE is a passenger car, light-duty truck, medium-duty vehicle, or heavy-duty vehicle as defined in Section 1902, Title 13, of the California Administrative Code.

(27) PAN-BACKING COATING is a coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.

(28) PREFABRICATED ARCHITECTURAL COMPONENT COATINGS are coatings applied to metal parts and products which are to be used as an architectural structure

(29) PRETREATMENT COATING is a coating which contains no more than 12 percent solids by weight, and at least 1/2-percent acid, by weight, is used to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping.

(30) REACTIVE DILUENT is a liquid which is a VOC during application and one in which, through chemical reaction such as polymerization, 20 percent or more of the VOC becomes an integral part of a finished coating.

(31) REPAIR COATING is a coating used to recoat portions of a product which has sustained mechanical damage to the coating following normal painting operations.

(32) SAFETY-INDICATING COATING is a coating which changes physical characteristics, such as color, to indicate unsafe conditions.

(33) SILICONE-RELEASE COATING is any coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans.

(34) SOLAR-ABSORBENT COATING is a coating which has as its prime purpose the absorption of solar radiation.

(35) SOLID-FILM LUBRICANT is a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE) or other solids that act as a dry lubricant between faying surfaces.

(36) STENCIL COATING is an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to metal parts and products.

(37) TEXTURED FINISH is a rough surface produced by spraying large drops of coating onto a previously applied coating.

(38) TOUCH-UP COATING is a coating used to cover minor coating imperfections appearing after the main coating operation.

(39) TRANSFER EFFICIENCY is the ratio of the weight or volume of coating solids adhering to an object to the total weight or volume, respectively, of coating solids used in the application process, expressed as a percentage.

(40) VACUUM-METALIZING COATING is the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film.

(41) VOLATILE ORGANIC COMPOUND (VOC) means any volatile chemical compound that contains the element carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates and metallic carbides; and excluding methane and exempt compounds.

(c) Requirements

(1) Operating Equipment

A person shall not apply VOC-containing coatings to metal parts and products subject to the provisions of this rule unless the coating is applied with properly operating equipment according to an operating procedure specified by the equipment manufacturer or the Executive Officer, or designee, and by the use of one of the following methods:

(A) Electrostatic attraction, or

(B) Flow coat, or

(C) Dip coat, or

(D) Roll coater, or

(E) High-Volume, Low-Pressure (HVLP) Spray, or

(F) Hand Application Methods, or

(G) Such other coating application methods as are demonstrated to the Executive Officer, or designee, using EPA approved procedures, specified in paragraph (f)(4) of this rule, to be capable of achieving at least 65 percent transfer efficiency and for which written approval of the Executive Officer, or designee, has been obtained.

(2) VOC Content of Coatings

A person shall not apply to metal parts and products subject to the provisions of this rule any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below:

LIMITS
Grams of VOC Per Liter of Coating,
Less Water and Less Exempt Compounds

Coating	Air Dried	(lb/gal)	Baked	(lb/gal)
General	340	(2.8)	275	(2.3)
Military Specification	340	(2.8)	275	(2.3)
Etching Filler	420	(3.5)	420	(3.5)
Solar-Absorbent	420	(3.5)	360	(3.0)
Heat-Resistant	420	(3.5)	360	(3.0)
Extreme High-Gloss	420	(3.5)	360	(3.0)
Metallic	420	(3.5)	420	(3.5)
Extreme Performance	420	(3.5)	360	(3.0)
Prefabricated Architectural Component	420	(3.5)	275	(2.3)
Touch Up	420	(3.5)	360	(3.0)
Repair	420	(3.5)	360	(3.0)
Silicone Release	420	(3.5)	420	(3.5)
High Performance Architectural	420	(3.5)	420	(3.5)
Camouflage	420	(3.5)	420	(3.5)
Vacuum-Metalizing	420	(3.5)	420	(3.5)
Mold-Seal	420	(3.5)	420	(3.5)
High-Temperature	420	(3.5)	420	(3.5)
Electric-Insulating Varnish	420	(3.5)	420	(3.5)
Pan Backing	420	(3.5)	420	(3.5)
Pretreatment Coatings	420	(3.5)	420	(3.5)

(3) A person shall not use VOC-containing materials which have a VOC content of more than 200 grams per liter of material for stripping any coating governed by this rule.

(4) Containers used for the disposal of cloth or paper used in stripping cured coating shall be closed except when depositing or removing the cloth or paper from the container.

(5) Solvent Cleaning Operations; Storage and Disposal of VOC-containing Materials

Solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-

containing materials used in cleaning operations shall be carried out pursuant to Rule 1171 - Solvent Cleaning Operations.

(6) For coatings that contain reactive diluents, the Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds shall be calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where: W_s = weight of volatile compounds not consumed during curing, in grams

W_w = weight of water not consumed during curing, in grams

W_{es} = weight of exempt compounds not consumed during curing, in grams

V_m = volume of the material prior to reaction, in liters

V_w = volume of water not consumed during curing, in liters

V_{es} = volume of exempt compounds not consumed during curing, in liters

(7) Owners and/or operators of control equipment may comply with provisions of subparagraph (c)(1) and/or (c)(2) by using approved air pollution control equipment provided that the VOC emissions from such operations and/or materials are reduced in accordance with the provisions of (A) and (B):

(A) The control device shall reduce emissions from an emission collection system by at least 95 percent by weight or the output of the air pollution control device is 50 PPM by volume calculated as carbon with no dilution.

(B) The owner/operator demonstrates that the system collects at least 90 percent by weight of the emissions generated by the sources of emissions.

(d) Prohibition of Specifications

A person shall not specify the use in the District of any coating to be applied to any metal parts and products subject to the provisions of this rule that does not meet the

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limits and requirements of this rule. The requirements of this paragraph shall apply to all written and oral contracts.

(e) [Reserved for Prohibition of Sale of Noncompliant Coating]

(f) Methods of Analysis

(1) Determination of VOC content

The volatile organic content of coatings subject to the provisions of this rule shall be determined by the following methods:

(A) United States Environmental Protection Agency (USEPA) Reference Method 24 (Code of Federal Regulations Title 40 Part 60, Appendix A). The exempt solvent content shall be determined by SCAQMD Method 303 (Determination of Exempt Compounds) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,

(B) SCAQMD Method 304 [Determination of Volatile Organic Compounds (VOCs) in Various Materials] contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(C) Exempt Perfluorocarbon Compounds

The following classes of compounds:

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 sulfur bonds only to carbon and fluorine,

will be analyzed as exempt compounds for compliance with paragraph (c), only when manufacturers specify which individual compounds are used in the coating formulation. In addition, the manufacturers must identify the United States Environmental Protection Agency, California Air Resources Board, and the District approved test methods used to quantify the amount of each exempt compound.

(2) Determination of Efficiency of Emission Control System

(A) Capture efficiency specified in paragraph (c)(7), shall be determined by the procedures presented in the USEPA technical guidance document, "Guidelines for Determining Capture Efficiency, January 9, 1995." Notwithstanding the test methods specified by the Guidelines, any other method approved by the USEPA, the California Air Resources Board, and the SCAQMD Executive Officer may be substituted.

(B) The efficiency of the control device of the emission control system as specified in paragraph (c)(7) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by the USEPA Test Methods 25, 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of exempt compounds.

(3) Multiple Test Methods

When more than one test method or set of methods are 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 the rule.

(4) Demonstrations of transfer efficiency shall be conducted in accordance with SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," May 24, 1989.

(g) Exemptions

(1) The provisions of subparagraphs (c)(1) and (c)(2) of this rule, shall not apply to:

(A) Stencil coatings;

(B) A facility which uses a total of less than one gallon of coating, including any VOC-containing materials added to the original coating as supplied by the manufacturer, subject to this rule, in any one day;

(C) Total noncompliant coating use per facility that does not exceed 55 gallons per rolling 12-month period;

(D) Safety-indicating coatings;

(E) Magnetic data storage disk coatings;

(F) Solid-film lubricants;

(2) The provisions of subparagraph(c)(1) of this rule shall not apply to any coating operation that, because of physical and/or chemical characteristics of the substrate or safety conditions, cannot meet a 65 percent transfer efficiency, provided that:

(A) A general coater submits a written petition to the Executive Officer setting forth the basis, including test data, for the claim that 65 percent transfer efficiency cannot be met, and approval is granted by the Executive Officer, or designee.

(B) A contract painter submits a written petition to, and receives approval from, the Executive Officer, or designee, to exempt the coating of such items; and the contract painter maintains a daily log:

(i) which describes the reason(s) why 65 percent transfer efficiency cannot be achieved, including a written and/or photographic description of the object to be used; and

(ii) into which the entry is made prior to commencement of coating operations for that object; and

(iii) which is made available for review by the District upon request; and

(iv) which is retained in the operator's files for at least two years.

(3) The Executive Officer, or designee, may revoke the approval granted pursuant to subparagraph (g)(2)(B) of this rule if:

(A) the daily log is not adequately maintained; or

(B) an entry is made after the application of coating; or

(C) the physical characteristics of the substrate do not warrant an exemption.

(4) The provisions of subparagraph (c)(1) of this rule shall not apply to the application of touch-up coatings, repair coatings, textured coatings, metallic coatings which have a metallic content of more than 30 grams per liter, mold-seal coatings, and to facilities that use less than three gallons of coating, as applied, including any VOC-containing materials added to the original coating as supplied by the manufacturer, per day.

(5) The provisions of subparagraphs (c)(1), (c)(2), and (c)(3) of this rule do not apply to the application of coatings and use of cleaning solvents while conducting performance tests on the coatings at paint manufacturing facilities.

(6) The provisions of paragraph (c)(2) of this rule shall not apply to high performance architectural, vacuum metalizing, and/or pretreatment coatings used at a facility which has the potential to emit a total of 10 tons or less per year of VOCs, before application of add-on controls.

(7) The provisions of paragraph (c)(2) of this rule shall not apply to vacuum metalizing coatings until January 1, 1997, provided the coatings meet a VOC content limit of 800 grams per liter, less water and less exempt compounds.

(8) The provisions of paragraph (c)(2) of this rule shall not apply to high performance architectural coatings until January 1, 1997, provided the coatings meet a VOC content limit of 750 grams per liter, less water and less exempt compounds.

(9) The provisions of paragraph (c)(2) of this rule shall not apply to pretreatment coatings until January 1, 1997, provided the coatings meet a VOC content limit of 780 grams per liter, less water and less exempt compounds.

(h) Rule 442 Applicability

Any coating, coating operation, or facility which is exempt from all or a portion of the VOC limits of this rule shall comply with the provisions of Rule 442.

(i) Alternative Emission Control Plan

An owner/operator may achieve compliance with subparagraph (c)(2) by means of an Alternative Emission Control Plan pursuant to Rule 108.

(j) Qualification for Classification as Extreme-Performance Coating

A coating may be classified as an extreme-performance coating provided that the applicator requests and receives written approval of such classification from the Executive Officer, or designee, prior to application of such coating, and shows that the intended use of each coated object would require coating with an extreme-performance coating.

(k) Recordkeeping

Daily records of coating and solvent usage shall be maintained pursuant to Rule 109.

(l) Emission Reduction Credits

Facilities that use high performance architectural, pretreatment, or vacuum metalizing coatings shall not receive emission reduction credit(s) pursuant to SCAQMD Rule 1309 above those emission reduction credit(s) that the facility would have received if it was operated with coatings having a VOC content of no more than 420 gm/L, less water and less exempt compounds.

ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

Rule 1108. Cutback Asphalt

(Adopted May 4, 1979)(Amended December 4, 1981)
(Amended November 4, 1983)(Amended February 1, 1985)

(a) Definitions

For the purpose of this rule, cutback asphalt is a liquid petroleum product produced by fluxing an asphaltic base with suitable distillate and is classed as medium or slow curing grade, as defined in Section 93 of the January 1981, State of California Department of Transportation Standard Specifications.

(b) Requirements

A person shall not sell or offer for sale for use in the District, or use any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260^{o}C (500^{o}F) or lower as determined by ASTM Method D402 (AASHTO T78) or other test method as approved by the Executive Officer.

(c) Exemptions

The provisions of this rule shall not apply to the use of cutback asphalt that is subject to the provisions of other Regulation XI rules, or specifically exempted in such rules.

ANTELOPE VALLEY AIR POLLUTION CONTROL DISTRICT

Rule1108.1. Emulsified Asphalt

(Adopted August 3, 1979)(Amended December 4, 1981) (Amended November 4, 1983)

(a) Definitions

For the purpose of this rule, emulsified asphalt is a liquid petroleum product produced by fluxing an asphaltic base with water and an emulsifier, and is classed as rapid, medium, or slow setting grade as described under Section 94 of the January 1981, State of California Department of Transportation Standard Specifications.

(b) Requirements

A person shall not sell or offer for sale for use in the District, or use any emulsified asphalt containing organic compounds which evaporate at 260^{o}C (500^{o}F) or lower as determined by ASTM Method D244 (AASHTO T59), or other test method as approved by the Executive Officer, in excess of:

(A) Effective January 1, 1982:

(i) Slow setting type, three percent by volume

(ii) Rapid setting type, three percent by volume

(B) Before January 1, 1987:

(i) Medium setting type for use with dense graded aggregate, eight percent by volume.

(ii) Medium setting type for use with dense graded aggregate, 12 percent by volume.

(C) On and after January 1, 1987:

(i) Medium setting type for use with any aggregate, three percent by volume.

(c) Exemptions

The provisions of this rule shall not apply to the use of emulsified asphalt that is subject to other Regulation XI rules, or specifically exempted in such rules.

(**Adopted**: 08/03/90; **Amended**: 09/07/90; **Amended:** 08/12/94; **Amended:** 12/09/94; **Amended:** 5/15/01; **Amended:** 01/21/03); **Amended:** 09/18/18)

RULE 1110.2
Emissions from Stationary, Non-Road and Portable Internal Combustion Engines

(A) General

(1) Purpose

(a) To limit emissions of Oxides of Nitrogen (NOx), Volatile Organic Compounds (VOCs) and Carbon Monoxide (CO) from Internal Combustion Engines.

(2) Applicability

(a) This rule is applicable to all Internal Combustion Engine(s) over 50 bhp.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) "Air Pollution Control Officer (APCO)" – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

(2) "District" – The Antelope Valley Air Quality Management District that includes the geographical area described in District Rule 103.

(3) "Emergency Engine" – Any Engine which operates as a temporary replacement for primary mechanical or electrical power during periods of fuel or energy shortage or while the primary power supply is under repair.

(4) "Exempt Compounds" – Those compounds listed as excluded from the definition of volatile organic compounds in 40 CFR 51.100(s).

(5) "Facility" – Any building, structure, emissions unit(s) or installation which emits or may emit a Regulated Air Pollutant and which is:

(a) Located on one or more contiguous or adjacent properties within the District; and

(b) Under the control of the same person (or by persons under common control); and

(c) Belongs to the same industrial grouping, as determined by being within the same two-digit Standard Industrial Classification Code (SICC).

(d) For the purpose of this regulation, such above-described grouping, remotely located but connected only by land carrying a pipeline, shall not be considered one Facility.

(6) "Internal Combustion Engine (Engine)" – Any spark- or compression-ignited Engine, not including Engines used for self-propulsion.

(7) "Location" – Any single site at a building, structure, Facility, or installation. For Engines that perform maintenance on equipment at its permanent or ordinary Location, each maintenance site shall be a separate Location.

(8) "Non-Road Engine" – Any Engine defined under 40 CFR Part 89, which meets the specified emissions limits therein, and that does not remain or will not remain at a Location for more than 12 consecutive months, or a shorter period of time where such period is representative of normal annual source operation at a stationary source that resides at a fixed Location for more than 12 months (e.g., seasonal source or operation such as canning facilities or equipment used to manufacture snow) and meets any one of the following:

(a) Is used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as an off highway mobile crane); or

(b) Is used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawn mowers and string trimmers); or

(c) By itself, or in or on a piece of equipment, is Portable or transportable. Portable means designed to be and capable of being carried or moved from one Location to another. Transportable includes, but is not limited to, wheels, skids, carrying handles, dolly, trailer, platform or mounting.

(9) "Portable Engine" – Any Engine designed and capable of being carried or moved from one Location to another. Indications of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

An Engine is not Portable if:

(a) It is attached to a foundation at a single Location; or

(b) It remains or will remain at a single Location for more than 12 consecutive months; or

(c) It is a replacement Engine for a specific application which remains or is intended to remain for 12 consecutive months; or

(d) It is a seasonal or other source that normally operates less than 12 consecutive months as its normal operational year.

Any period during which the Engine is not operated and is maintained at a designated storage facility shall be excluded from the residency time determination.

(10) "Rated Brake Horsepower (bhp)" – The rating specified by the manufacturer, without regard to any derating, and listed on the Engine nameplate.

(11) "Regulated Air Pollutant" – Any of the following air pollutants:

(a) Any air pollutant, and its precursors, for which an ambient air quality standard has been promulgated.

(b) Any air pollutant that is subject to a standard under 42 U.S.C. §7411, Standards of Performance for New Stationary Sources (Federal Clean Air Act §111) or the regulations promulgated thereunder.

(c) Any substance which has been designated a Class I or Class II substance under 42 U.S.C. §7671a (Federal Clean Air Act §602) or the regulations promulgated thereunder.

(d) Any air pollutant subject to a standard or other requirement established pursuant to 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112) or the regulations promulgated thereunder.

(12) "Stationary Engine" – Any Engine which is either attached to a foundation or if not so attached, does not meet the definition of a Portable or Non-Road Engine and is not a motor vehicle as defined in Section 415 of the California Vehicle Code.

(13) "Volatile Organic Compound (VOC)" – Any volatile compound of carbon, excluding Exempt Compounds.

(C) Requirements

(1) General Emissions Limits

(a) The owner or operator of any Stationary Engine subject to this rule shall:

(i) Replace any such Engine with an electric motor; or
(ii) Remove the Engine from service, permanently; or
(iii) Ensure that the emissions from such Engine do not exceed the emission limits of TABLE I.

TABLE I GENERAL ENGINE EMISSIONS LIMITS		
NO_X	**VOC**	**CO**
36 ppm*	250 ppm*	2000 ppm*

* Corrected to 15% oxygen on a dry gas basis and averaged over a 15-minute interval.

(2) Portable Engine Emission Limit

(a) The owner or operator of any Portable Engine subject to this rule shall:

(i) Register the Engine with the CARB Statewide Portable Equipment Registration Program, successfully obtaining a valid certificate for the Engine; or
(ii) Spark-Ignited Engines shall comply with the emission limits in TABLE II below:

TABLE II SPARK-IGNITION PORTABLE ENGINES COMPLIANCE LIMITS		
NOx	**VOC**	**CO**
80 ppm*	240 ppm*	176 ppm*

* Corrected to 15% oxygen on a dry gas basis and averaged over a 15 minute interval.

(iii) Compression-Ignited Engines shall comply with the emission limits in TABLE III below:

TABLE III PORTABLE COMPRESSION-IGNITED ENGINE LIMITS	
Rated Brake Horsepower (bhp)	**Requirements**
50 bhp or greater	535 ppm* NOx or a turbocharger and aftercooler/intercooler and 4-degree injection timing retard

* Corrected to 15% oxygen on a dry gas basis and averaged over a 15 minute interval.

(D) Monitoring

(1) For Stationary Engines of 1000 bhp and greater, subject to the provisions of section (C) of this rule and operating more than two million bhp-hr per calendar year:

(a) Continuous Emission Monitoring System (CEMS) Requirement

(i) The owner/operator shall install, operate and maintain a NO_x CEMS as approved by the APCO to demonstrate compliance within the emission limits of this rule.

(ii) This system shall include equipment that measures and records exhaust gas NO_x concentrations, corrected to 15% oxygen on a dry basis.

(iii) CEMS shall meet the requirements described in 40 CFR Part 60, particularly those in Appendix B, Spec. 2 and Appendix F.

(iv) CEMS reporting to the APCO shall be as prescribed in 40 CFR Part 60.7(c), 60.7(d) and 60.13, with NO_x reported after corrections to 15% oxygen on a dry basis.

(b) Alternative Monitoring Device or Equipment, in lieu of CEMS

(i) The owner/operator of an Engine that is required to install a CEMS may request in writing to the APCO, California Air Resources Board (CARB) and USEPA, approval of an alternative monitoring device (or system components) to demonstrate compliance with the limits of this rule.

(ii) The applicant shall demonstrate to the APCO, CARB and USEPA, that the proposed monitoring device is, at a minimum, comparable in relative accuracy, precision, reliability and timeliness to a CEMS for that Engine, on a case-by-case basis; or

(iii) The APCO, CARB and USEPA, may approve, on a case-by-case basis, criteria for equipment which is equivalent to the criteria specified in 40 CFR 75, Subpart E.

(iv) Such alternative monitoring device, equipment or procedure must be approved in writing by the APCO and obtain a valid permit to operate with the District. The approval shall include a monitoring plan that includes, at a minimum, equipment specifications, monitoring, record keeping, compliance testing and reporting requirements.

(2) For Stationary Engines of less than 1,000 bhp and Stationary Engines of greater than 1,000 bhp operating less than two million bhp-hr per calendar year which are subject to the provisions of section (C):

(a) Quarterly Screening Analysis

(i) The owner/operator shall inspect each Engine each calendar quarter in which compliance testing is not required pursuant to subsection (F)(1) of this rule with a Portable NO_x analyzer to determine compliance with the emissions limits contained in section (C) of this rule.

(ii) An instrument reading in excess of the emission limit contained in section (C) of this rule shall not be considered a violation of this rule, so long as the problem is corrected and a follow-up inspection is conducted within 15 days of the initial inspection.

(iii) Instrument readings, a determination of whether or not the Engine is in compliance, a description of corrective action(s) taken, and the initials of the person recording the reading shall be recorded on an inspection log and kept in accordance with the provisions of section (G) of this rule.

(b) Alternate Screening Analysis

(i) The owner/operator of an Engine that is required to be inspected pursuant to subsection (D)(2)(a) above, may request in writing to the APCO, for approval of an alternate screening analysis to demonstrate compliance with the emissions limits contained in section (C) of this rule.

(ii) The application for an alternate screening analysis shall include:

a. A listing of each Engine, its permit number and Location which is to be subject to the alternate screening analysis.

b. A specific emission inspection procedure to assure that the Engine is operated in compliance with the provisions of this rule. Inspections shall be conducted every quarter or after every 2,000 hours of Engine operations whichever is less, but in no case less than quarterly.

c. A description and schedule of preventative maintenance procedures or practices which will be used to maintain the Engine(s) in compliance with the provisions of this rule.

(3) Any monitoring system shall have data gathering and retrieval capability approved by the APCO. Data shall be maintained for at least five (5) years and made available for inspection by the APCO.

(E) Equipment Requirements

(1) All Engines subject to this rule shall:

(a) Have an operational, non-resettable totalizing time (in hours) meter, to determine the Engines elapsed operating time.

(b) Have a non-resettable fuel meter or acceptable alternative as approved by the APCO, CARB and USEPA, to determine fuel consumption.

(F) Compliance Test Requirements and Methods

(1) The owner/operator of any engine subject to this rule shall:

(a) Provide source test information regarding the exhaust gas; specifically for NO_x, VOC reported as methane and CO concentrations (concentrations in ppm by volume, corrected to 15% oxygen on dry basis) according to the following schedule:

(i) Once each 8,760 hours of operation or once every 24 months whichever period is shorter.
(ii) Compliance testing shall be conducted under conditions that are typical of normal Engine load and duty cycle.
(iii) The compliance test shall be conducted and the report received at the District not less than 90 days prior to the Engines permit renewal date.

(b) Conduct testing to verify compliance in accordance with the following test methods:

(i) NO_x emissions subject to the provisions of this rule shall be determined by the procedure detailed in EPA Test Method 7E.
(ii) CO emissions by EPA Test Method 10.
(iii) VOC emissions by EPA Test Method 25, 25A or 25B.
(iv) Other test methods determined to be equivalent after review by the staffs of the District, CARB, and the USEPA, and approved in writing by the APCO, may also be used to determine compliance with provisions of this rule.

(G) Record Keeping and Reporting

(1) The owner/operator of any Engine shall maintain an Engine operating log on a monthly basis that includes:

(a) The total hours of operation for each day of operation; and

(b) Type and quantity of fuel used (liquid/gas); and

(c) The cumulative hours of operation since the last source test required in subsection (F)(1); and

(d) The purpose or reason for operating the Engine for each day of operation.

(e) The results of any screening analysis or alternative screening analysis if required pursuant to subsection (D)(2).

(2) Required records and data shall be available for inspection any time, remain at the Facility for five (5) years, and upon request, be submitted to the APCO at the end of each calendar year in a manner and form approved by the APCO.

(H) Exemptions

(1) The provisions of sections (C), (D), (E), (F), and (G) shall not apply to:

(a) Engines operated for the purpose of performance verification and testing.

(b) Auxiliary Engines used to power other Engines or gas turbines during start-ups.

(c) Portable Engines that are registered under the Statewide Portable Equipment Registration Program pursuant to Title 13, Article 5 of the CCR.

(2) The provisions of sections (C), (D), and (F) shall not apply to:

(a) The operation of any Engine during the existence of any officially declared disaster or state of emergency.

(b) Emergency Engines and Engines used for fire-fighting and flood control.

(c) Non-Road Engines.

(d) Laboratory Engines used in research and testing purposes.

(e) Supplemental Engines which operate for the manufacture of snow which have a Facility limit to operate 1200 hours or less during seasonal operations (November 1 through April 15).

See SIP Table at www.avaqmd.ca.gov

10/27/83

7-8-83
SCAQMD

~~May 26, 1983~~

~~Proposed~~ Amended Rule 1111 - NO_x Emissions from Natural Gas-Fired Fan Type Central Furnaces

(a) Definitions

(1) Fan Type Central Furnace is a self-contained space heater providing for circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length, that have:

(A) an input rate of less than 175,000 BTU/hr; or

(B) for combination heating and cooling unit, a cooling rate of less than 65,000 BTU/hr.

(2) ~~Seasonal-Efficiency-shall-be-as-certified-by-the-California-Energy Commission-under-the-provisions-of-California-Administrative-Code, Title-20,-Chapter-2,-Subchapter-4,-Article-4,-Sections-1603-through 1607-(Appliance-Efficiency-Standards).~~

Annual Fuel Utilization Efficiency (AFUE) is defined in Section 4.2.35 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.

(3) Useful Heat Delivered to the Heated Space is the ~~seasonal-efficiency~~ AFUE (expressed as a fraction) multiplied by the heat input.

Proposed Amended Rule 1111

(b) Requirements

(1) A manufacturer shall not, after January 1, 1984 manufacture or supply for sale or use in the South Coast Air Quality Management District natural gas-fired fan type central furnaces, unless such furnaces meet the requirements of subparagraph (3).

(2) A person shall not, after April 2, 1984 sell or offer for sale within the South Coast Air Quality Management District natural gas-fired fan type central furnaces unless such furnaces meet the requirements of subparagraph (3).

(3) Natural gas-fired fan type central furnaces shall:

(A) not emit more than 40 nanograms of oxides of nitrogen (calculated as NO_2) per joule of useful heat delivered to the heated space; and

(B) be certified in accordance with paragraph (c) of this rule.

(c) Certification

(1) The manufacturer shall have each appliance model tested in accordance with the following:

(A) Oxides of nitrogen measurements, test equipment, and other required test procedures shall be in accordance with ~~approved EPA methods and standards or equivalent procedures~~ approved by the Executive Officer.

(B) Operation of the furnace shall be in accordance with the procedures specified in Section 3.1 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N. ~~American National Standard Z21.47-1978, Section 2.7.1, at normal test pressure, input rate, supply voltage and equipped with a 5-foot stack.~~

(2) One of the two formulas shown below shall be used to determine the nanograms of oxides of nitrogen per joule of useful heat delivered to the heated space:

$$N = \frac{4.566 \times 10^4 \times P \times U,}{H \times C \times E} \qquad N = \frac{3.655 \times 10^{10} \times P}{(20.9-Y) \times Z \times E}$$

Where:

N = nanograms of emitted oxides of nitrogen per joule of useful heat.

P = concentration (ppm volume) of oxides of nitrogen in flue gas as tested.

U = volume percent CO_2 in water-free flue gas for stoichiometric combustion.

H = gross heating value of fuel, BTU/Cu.Ft. (60°F, 30-in. Hg).

C = measured volume percent of CO_2 in water-free flue gas, assuming complete combustion and no CO present.

E = ~~Seasonal Efficiency, percent.~~ AFUE, percent (calculated using Table 2).

Y = volume percent of O_2 in flue gas.

Z = heating value of gas, joules/Cu. Meter (0.0°C, 1 ATM).

(3) The manufacturer shall submit to the Executive Officer the following:

(A) A statement that the model is in compliance with subsection (b). (The statement shall be signed and dated, and shall attest to the accuracy of all statements).

(B) General Information

(i) Name and address of manufacturer.

(ii) Brand name.

(iii) Model number, as it appears on the furnace rating plate.

(C) A description of the furnace and specifications for each model being certified.

(d) Identification

The manufacturer shall display the model number of the furnace complying with subsection (b) on the shipping carton and rating plate.

(e) Enforcement

(1) The Executive Officer may require the emission test results to be provided when deemed necessary to verify compliance.

(2) The Executive Officer may periodically conduct such tests as are deemed necessary to insure compliance with subsection (b).

(f) Exemptions

(1) The provisions of this rule shall not apply to furnaces to be installed in mobile homes.

(2) The provisions of this rule shall not apply to natural gas-fired fan type central furnaces utilizing three-phase electrical current until January 1, 1986.

(**Adopted**: 09/02/77; **Amended**: 02/02/77;**Amended**: 02/03/78; **Amended**: 09/05/80; **Amended**: 04/03/81; **Amended**: 07/03/81; **Amended** by CARB 10/21/81; **Amended**: 08/05/83; **Amended**: 03/16/84; **Amended**: 08/02/85; **Amended**: 11/01/85; **Amended**: 02/06/87; **Amended**: 01/05/90; **Amended**: 02/02/90; **Amended**: 11/02/90; **Amended**: 12/07/90; **Amended**: 09/06/91; **Amended**: 03/08/96; **Amended**: 08/09/96; **Amended**: 11/08/96; **Amended**: 03/18/03; **Amended**: 06/18/13**)**

RULE 1113
Architectural Coatings

(A) General

(1) Purpose: The purpose of this rule is to limit the quantity of Volatile Organic Compounds (VOC) in Architectural Coatings.

(2) Applicability: Except as provided in subsection (A)(3), this rule is applicable to any person who supplies, sells, offers for sale, manufactures, blends, or repackages any Architectural Coating for use within the Antelope Valley Air Quality Management District (District) as well as any person who applies or Solicits the application of any Architectural Coating within the District.

(3) This rule does not apply to:

(a) Any Architectural Coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.

(b) Any Aerosol Coating Product.

(c) With the exception of Section (E), any Architectural Coating that is sold in a container with a volume of one (1) liter (1.057 quart) or less.

(B) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) "Adhesive"- Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

(2) "Aerosol Coating Product"- A pressurized Coating product containing pigments or resins that dispenses 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.

(3) "Air Pollution Control Officer" (APCO)- The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750 and his or her designee.

(4) "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 method referenced in subsection (G)(5)(k).

(5) "Antenna Coating"- A Coating labeled and formulated exclusively for application to equipment and associated structural Appurtenances that are used to receive or transmit electromagnetic signals.

Effective 06/18/14 the Antenna Coating category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(6) "Antifouling Coating"- A Coating labeled and formulated for application to submerged stationary structures and their Appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling Coating, the Coating must be registered with both the USEPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. §§136 *et seq*.) and with the California Department of Pesticide Regulation.

Effective 06/18/14 the Antifouling Coating category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(7) "Appurtenance"- 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 downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

(8) "Architectural Coating"- A Coating to be applied to stationary structures or 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 purposes of this rule.

(9) "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. Coating must meet the following criteria:

(a) Coating must be capable of withstanding at least 10 psi of hydrostatic pressure, as determined in accordance with test method referenced in subsection (G)(5)(j).
(b) Coating must be resistant to mold and mildew growth and must achieve a microbial growth rating of eight (8) or more, as determined in accordance with test methods referenced in subsection (G)(5)(m).

(10) "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.

(11) "Bituminous Roof Coating"- A Coating which incorporates Bitumens that is labeled and formulated exclusively for roofing.

(12) "Bituminous Roof Primer"- A primer which incorporates Bitumens that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered or aged surface or improving the adhesion of subsequent surfacing components.

(13) "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.

(14) "California Air Resources Board" (CARB)- The California Air Resources Board, the Executive Officer of CARB and his or her authorized representative, the powers and duties of which are described in Part 2 of Division 26 of the California Health & Safety Code (commencing with §39500).

(15) "Clear Brushing Lacquers"- Clear wood finishes, excluding clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film, which are intended exclusively for application by brush, and which are labeled as specified in subsection (D)(1)(f).

Effective 06/18/14 the Clear Brushing Lacquers category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(16) "Clear Wood Coatings"- Clear and semi-transparent Coatings, including lacquers and varnishes, applied to Wood Substrates to provide a transparent or translucent solid film.

Effective 06/18/14 the Clear Wood Coating category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(17) "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.

(18) "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.

(19) "Concrete Curing Compound"- A Coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water and/or harden or dustproof the surface of freshly poured concrete.

(20) "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:

(a) Prevent penetration of water;
(b) Provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or
(c) Harden or dustproof the surface of aged or cured concrete.

(21) "District"- The Antelope Valley Air Quality Management District, the geographical area of which is described District Rule 103 – *Definition of Geographical Areas.*

(22) "Driveway Sealer"- A Coating labeled and formulated for application to worn asphalt driveway surfaces to perform one or more of the following functions:

(a) Fill cracks;
(b) Seal the surface to provide protection; or
(c) Restore or preserve the appearance.

(23) "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.

(24) "Exempt Compounds"- Those compounds listed in 40 Code of Federal Regulation (CFR) 51.100(s).

(25) "Faux Finishing Coating"- A Coating labeled and formulated to meet one or more of the following:

(a) 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.

(b) 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 applied (at least 0.4 pounds per gallon).

(c) 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 method referenced subsection (G)(5)(f).

(d) 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 method referenced subsection (G)(5)(f).

(e) A clear topcoat to seal and protect a Faux Finishing Coating that meets one or more of the requirements of subsection (a) –(d) above. These clear topcoats must be sold and used solely as a part of a Faux Finishing Coating system, and must be labeled in accordance with subsection (D)(1)(d).

(26) "Fire-Resistive Coating"– A Coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. The category includes sprayed fire resistive materials and intumescent Fire-Resistive Coatings that are used to bring 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 and shall be tested in accordance with the applicable test method found in subsection (G)(5)(h).

(27) "Fire-Retardant Coating"- A Coating labeled and formulated to retard ignition and flame spread, that has been fire tested and rated by a testing agency approved by building code officials for use in bringing building and construction materials into compliance with federal, state and local building code requirements. The Fire-Retardant Coating and the testing agency must be approved by building code officials and shall be tested in accordance with the test method referenced in subsection (G)(5)(g).

Effective 06/18/14 the Fire-Retardant Coating category is eliminated and Coatings with fire retardant properties will be subject to the VOC limit of their primary category (eg., Flat, Nonflat, etc.).

(28) "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 according to the applicable test method found in subsection (G)(5)(i).

(29) "Floor Coating"- An opaque Coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors, and other horizontal surfaces which may be subject to foot traffic.

(30) "Flow Coating"- A Coating labeled and formulated exclusively for use by electric power companies or their subcontractors to maintain the protective Coating systems present on utility transformer units.

Effective 06/18/14 the Flow Coating category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(31) "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 material other than concrete.

(32) "Graphic Arts Coating or Sign Paint"- A Coating labeled and formulated for hand-application by artists using brush, airbrush, or roller techniques to indoor and outdoor signs (excluding structural components) and murals including lettering enamels, poster colors, copy blockers, and bulletin enamels.

(33) "High-Temperature Coating"- A high performance Coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204^{o}C (400^{o}F).

(34) "Industrial Maintenance Coating"- A high performance Architectural Coating, including Primers, Sealers, Undercoaters, intermediate coats, and topcoats, formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions listed in subsections (a) - (e) below, and labeled as specified in subsection (D)(1)(e).

(a) Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
(b) Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
(c) Frequent exposure to temperatures above 121°C (250°F);
(d) Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, or scouring agents; or
(e) Exterior exposure of metal structures and structural components.

(35) "Lacquer"- A clear or opaque wood Coating, including clear lacquer sanding Sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

Effective 06/18/14 the Lacquer category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(36) "Low Solids Coating"- A Coating containing 0.12 kilogram or less of solids per liter (one (1) pound or less of solids per gallon) of Coating material as recommended for application by the manufacturer. The VOC Content for Low Solids Coating shall be calculated in accordance with subsection (G)(1)(a)(ii).

(37) "Magnesite Cement Coating"- A Coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

(38) "Manufacturer's Maximum Thinning Recommendation"- The maximum recommendation for thinning that is indicated on the label or lid of the Coating container.

(39) "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.

(40) "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.

(41) "Metallic Pigmented Coating"- A Coating labeled and formulated to provide a metallic appearance. The Coating must contain at least 48 grams of elemental metallic pigment (excluding zinc) per liter of Coating as applied (at least 0.4 pounds per gallon), when tested in accordance with the applicable test method found in subsection (G)(5)(k). The Metallic Pigmented Coating category does not include coatings applied to roofs or Zinc-Rich Primers. Effective for products manufactured on or after 06/18/14, the Metallic Pigmented Coating category does not include coatings applied to roofs or Zinc-Rich Primers.

(42) "Multi-Color Coating"- A Coating that is packaged in a single container and that is labeled and formulated to exhibit more than one color when applied in a single coat.

(43) "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 five (5) or greater on a 60-degree meter according to the applicable test method found in subsection (G)(5)(i).

(44) "Nonflat - High Gloss Coating"- A Nonflat Coating that registers a gloss of 70 or above on a 60-degree meter according to applicable test method found in subsection (G)(5)(i) and labeled in accordance with subsection (D)(1)(l).

(45) "Nonindustrial Use"- Nonindustrial use means any use of Architectural Coatings except in the construction or maintenance of any of the following: facilities used in the manufacturing of goods and commodities; transportation infrastructure, including highways, bridges, airports and railroads; facilities used in mining activities, including petroleum extraction; and utilities infrastructure, including power generation and distribution, and water treatment and distribution systems.

(46) "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.

(47) "Pearlescent"- Exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

(48) "Plywood"- A panel product consisting of layers of wood Veneers or composite core pressed together with resin. This includes panel products made by either hot or cold pressing (with resin) Veneers to a platform.

(49) "Post-Consumer Coating"- A finished Coating generated by a business or consumer that has served its intended end use and is recovered from, or otherwise diverted from, the waste stream for the purpose of recycling.

(50) "Pre-Treatment Wash Primer"- A primer that contains a minimum of 0.5 percent acid, by weight, is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats, and is tested in accordance with the applicable test method found in subsection (G)(5)(o).

(51) "Primer, Sealer, and Undercoater"- A Coating labeled and formulated for one or more of the following purposes:

(a) To provide a firm bond between the substrate and the subsequent Coatings;
(b) To prevent subsequent Coatings from being absorbed by the substrate;
(c) To prevent harm to subsequent Coatings by materials in the substrate;
(d) To provide a smooth surface for the subsequent application of Coatings;
(e) To provide a clear finish coat to seal the substrate; or
(f) To block materials from penetrating into or leaching out of a substrate.

(52) "Quick-Dry Enamel"- A nonflat Coating that is labeled as specified in subsection (D)(1)(k)(i) and that is formulated to have the following characteristics:

(a) Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16º and 27ºC (60º and 80ºF);

(b) When tested in accordance with ASTM Designation D 1640-95 sets to touch in two (2) hours or less, is tack free in four (4) hours or less, and dries hard in eight (8) hours or less by the mechanical test method; and

(c) Has a dried film gloss of 70 or above on a 60 degree meter.

Effective 06/18/14 the Quick-Dry Enamel category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(53) "Quick-Dry Primer, Sealer, and Undercoater"- A primer, sealer, or undercoater that is dry to the touch in 30 minutes and can be recoated in two (2) hours when tested in accordance with ASTM Designation D 1640-95.

Effective 06/18/14 the Quick-Dry Primer, Sealer, and Undercoater category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(54) "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. These Sealers must penetrate into concrete and

masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. They 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:

(a) 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 in accordance with applicable test methods found in subsection (G)(5)(q); and
(b) The Reactive Penetrating Sealer must not reduce the water vapor transmission rate by more than two (2) percent after application on a concrete or masonry substrate. This performance must be verified in accordance with applicable test method found in subsection (G)(5)(r); and
(c) Products labeled and formulated for vehicular traffic surface chloride screening applications must meet the performance criteria referenced in subsection (G)(5)(p).
(d) Reactive Penetrating Sealers must be labeled in accordance with subsection (D)(1)(i)(i).

(55) "Recycled Coating"- An Architectural Coating formulated such that it contains not less than 50 percent by volume post-consumer Coating, with a maximum of 50 percent by volume Secondary Industrial Materials or Virgin Materials.

(56) "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.

(57) "Roof Coating"- A non-bituminous Coating labeled and formulated for application to roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and ultraviolet radiation.

(58) "Rust Preventative Coating"- A Coating formulated to prevent the corrosion of metal surfaces.

(a) Rust Preventative Coatings include the following:

(i) Direct-to-metal Coating; or
(ii) Coating intended for application over rusty, previously coated surfaces

(b) Rust Preventative Coatings does not include the following:

(i) Coatings that are required to be applied as a topcoat over a primer; or
(ii) Coatings that are intended for use on wood or any other non-metallic surface.

Rust Preventative Coatings must be labeled as specified in subsection (D)(1)(g)(i)

(59) "Sanding Sealer"- A clear or semi-transparent wood Coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of Coatings. A Sanding Sealer that also meets the definition of a Lacquer is not included in this category, but is included in the Lacquer category.
Effective 06/18/14 the Sanding Sealer category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(60) "Sealer"- A coating labeled and formulated for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

Effective 06/18/14 the Sealer category is eliminated and coatings meeting this definition will be subject to the applicable VOC limits of Table 1.

(61) "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.

(62) "Semitransparent Coating"- A Coating that contains binders and colored pigments and is formulated to change the color of the surface, but not conceal the grain pattern or texture.

(63) "Shellac"- A clear or opaque Coating formulated solely with the resinous secretions of the lac beetle (*Laciffer lacca*), and formulated to dry by evaporation without a chemical reaction.

(64) "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).

(65) "Solicit"- To require for use or to specify, by written or oral contract.

(66) "Specialty Primer, Sealer, and Undercoater"- A Coating that is formulated for application to a substrate to block water-soluble stains resulting from: fire, smoke or water damage. Effective for products manufactured after 06/18/14, a Coating that is 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 (D)(1)(h)(i).

(67) "Stain"- A semitransparent or opaque Coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

(68) "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.

(a) Must penetrate into stone substrates to create bonds between particles and consolidate deteriorated material;
(b) Must be specified and used in accordance with method referenced in subsection (G)(5)(s); and
(c) Labeled for professional use only, in accordance with the labeling requirements in subsection (D)(1)(j)(i).

(69) "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. Effective 06/18/14 the Swimming Pool Repair and Maintenance Coating category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(70) "Temperature-Indicator Safety Coating"- A Coating labeled and formulated as a color-changing indicator Coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping, or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above 204^{o}C (400^{o}F).

Effective 06/18/14 the Temperature-Indicator Safety Coating category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(71) "Tint Base"- An Architectural Coating to which Colorant is added after packaging in sale units to produce a desired color.

(72) "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.

(73) "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. The Coatings must meet all the following criteria:

(a) A scratch hardness of 3H or harder and a gouge hardness of 4H or harder. This must be determined in accordance with test method referenced in subsection (G)(5)(w).
(b) A weight loss of 20 milligrams or less after 1000 cycles. This must be determined in accordance with test method referenced in subsection (G)(5)(u).

(c) Capability to withstand 1000 hours or more of exposure with few or no #8 blisters. This must be determined in accordance with test method referenced in subsection (G)(5)(x).

(d) An adhesion rating of 4B or better after 24 hours of recovery. This must be determined in accordance with test method referenced in subsection (G)(5)(v).

(74) "United States Environmental Protection Agency" (USEPA)- The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(75) "Varnish"- A clear or semi-transparent wood Coating, excluding lacquers and Shellacs, formulated to dry by chemical reaction on exposure to air. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.

Effective 06/18/14 the Varnish category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(76) "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.

(77) "Virgin Materials"- Materials that contain no Post-Consumer Coatings or Secondary Industrial Materials.

(78) "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 those compounds listed in 40 CFR 51.100(s).

(79) "VOC Content"- The weight of VOC per volume of Coating. VOC Content is VOC Regulatory, as calculated in subsection (G)(1)(a)(i), for all coatings expect those in the Low Solids category. For coating in the Low Solids category, the VOC Content is VOC Actual, as calculated in subsection (G)(1)(a)(ii). If the coating is a multi-component product, the VOC Content is 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.

(80) "Waterproofing Sealer"- A Coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water.

Effective 06/18/14 the Waterproofing Sealer category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(81) "Waterproofing Concrete/Masonry Sealer"- A clear or pigmented film-forming Coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and Staining.

Effective 06/18/14 the Waterproofing Concrete/Masonry Sealer Coating category is eliminated and will be subjected to the applicable VOC limits of Table 1.

(82) "Waterproofing Membrane"- A clear or opaque Coating that is labeled and formulated for application to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents any penetration of liquid water into substrate. Intended for the following applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters, and under flooring materials.

(a) Waterproofing Membranes must meet the following criteria: Coating must be applied in a single coat of at least 25 mils (at least 0.025 inch) dry film thickness; and Coating must meet or exceed the requirements referenced in subsection (G)(5)(z).

(b) 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.).

(83) "Wood Coatings"- Coatings labeled and formulated for application to Wood Substrates only. The category includes the following: clear and Semitransparent Coatings; Lacquers; Varnishes; Sanding Sealers; penetrating oils; clear Stains; wood conditioner used as undercoats; wood Sealers used as topcoats; opaque lacquers; opaque sanding Sealers; and opaque lacquer Undercoaters. The 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 subsection (D)(1)(m)(i).

(84) "Wood Preservative"- A Coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. §§136 *et seq.*) and with the California Department of Pesticide Regulation.

(85) "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.

(86) "Zinc-Rich Primer"- A Coating that meets all of the following specifications:

(a) Coating contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and
(b) Coating is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of Coating; and
(c) Coating is intended for professional use only and is labeled as such, in accordance with the labeling requirements in subsection (D)(1)(n)(i).

(C) Requirements

(1) VOC Content Limits

(a) Except as provided in subsections (C)(2) and (C)(5), no person shall:

(i) Manufacture, blend, or repackage for use within the District;
(ii) Supply, sell, or offer for sale for use within the District; or
(iii) Solicit for application or apply within the District,
any Architectural Coating with a VOC Content in excess of the corresponding limit specified in Table 1 or Table 2, after the specified effective date in Table 1 or Table 2. Limits are expressed as VOC Content, thinned to the Manufacture's Maximum Thinning Recommendation, excluding any Colorant added to Tint Bases.

(2) Most Restrictive VOC Limit

(a) If anywhere on the container of any Architectural Coating, or 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, any representation is made that indicates that the Coating meets the definition of, or is recommended for use for more than one of the Coating categories listed in Table 1 or Table 2, then the most restrictive VOC Content limit shall apply. This provision does not apply to the following Coating categories:

(i) Aluminum Roof Coatings
(ii) Bituminous roof primers
(iii) High temperature coatings.
(iv) Industrial maintenance coatings.
(v) Low-solids coatings.
(vi) Metallic pigmented coatings.
(vii) Pretreatment wash primers.
(viii) Shellacs.

(ix) Specialty Primers, Sealers and Undercoaters.
(x) Wood Coatings.
(xi) Wood preservatives.
(xii) Zinc-Rich Primers.

(b) (C)(2)(a) does not apply to the following Coating categories manufactured prior to 06/18/14:

(i) Antenna Coatings
(ii) Antifouling Coatings
(iii) Flow Coatings
(iv) Fire-Retardant Coatings
(v) Lacquer Coatings
(vi) Temperature-Indicator Safety Coatings

(3) Specialty Coating Categories

(a) If a Coating meets a definition in Section (B) for one or more specialty coating categories that are listed in Table 1 or Table 2, then that Coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat-High Gloss Coatings, but is required to meet the VOC limit for the applicable specialty Coating listed in Table 1 or Table 2.

(b) For any Coating that does not meet any of the definitions for the specialty Coatings categories listed in Table 1 or Table 2, the VOC Content limit shall be determined by classifying the Coating as a Flat Coating, Nonflat Coating, or Nonflat - High Gloss Coating based on its gloss, as defined in subsections (B)(28), (B)(43), and (B)(44) and the corresponding Flat, Nonflat, or Nonflat High Gloss VOC limit shall apply.

(4) Eliminated Categories

(a) Effective 06/18/14 the Coating categories listed in Table 2 are eliminated, and these Coatings will be subject to the VOC limit for the applicable category in Table 1, except as provided in subsections (C)(2), (C)(3) and (C)(5).

(5) Sell-Through of Coatings

(a) A Coating listed in Table 1 or Table 2 and manufactured prior to the 06/18/14 effective date may be sold, supplied, or offered for sale for up to three (3) years after 06/18/14, so long as the Coating complied with the standards in effect at the time the Coating was manufactured. A Coating listed in Table 1 or Table 2 and manufactured before the 06/18/14 effective date may be applied at any time, both before and after 06/18/14,

so long as the Coating complied with the standards in effect at the time the Coating was manufactured. This subsection does not apply to any Coating that does not display the date or date-code required by subsection (D)(1)(a).

(6) Painting Practices

(a) 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.

(b) Containers of any VOC-containing materials used for thinning and cleanup shall be closed when not in use.

(7) Thinning

(a) No person who applies or Solicits the application of any Architectural Coating shall apply a Coating that is thinned to exceed the applicable VOC limit specified in Table 1 or Table 2.

(8) Rust Preventative Coatings

(a) Effective until 06/18/14, a person shall only apply or Solicit the application of a rust preventative Coating for non-industrial uses, unless the rust preventative Coating complies with the industrial maintenance Coating VOC limit specified in Table 1.

(9) Early Compliance Provision

(a) Prior to 06/18/14, any coating that meets a definition in Section (B) for a coating category listed in Table 1 and complies with the applicable VOC limit in Table 1 and with Sections (C)(2)(a) and (D) shall be considered in compliance with this rule.

(D) Container Labeling Requirements

(1) Each manufacturer of any Architectural Coating subject to this rule shall display the following information on the Coating container (or label) in which the Coating is sold or distributed.

(a) Date Code

(i) The date the Coating was manufactured, or a date code representing the date the Coating was manufactured, shall be indicated on the label, lid, or bottom of the container.
(ii) If the manufacturer uses a date code for any Coating, the manufacturer shall file an explanation of each code with CARB.

(b) Thinning Recommendations

(i) A statement of the manufacturer's recommendation regarding thinning of the Coating shall be indicated on the label or lid of the container.
(ii) This requirement does not apply to the thinning of Architectural Coatings with water.
(iii) If thinning of the Coating prior to use is not necessary, the recommendation must specify that the Coating is to be applied without thinning.

(c) 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:

(i) Maximum VOC Content as determined from all potential product formulations; or
(ii) VOC Content as determined from actual formulation data; or
(iii) VOC Content as determined using the applicable test methods in Section (G
(iv) If the manufacturer does not recommend thinning, the container must display the VOC content, as supplied.
(v) If the manufacturer recommends thinning, the container must display the VOC content, including the maximum amount of thinning solvent recommended by the manufacturer.
(vi) Effective 06/18/14, if the coating is a multi-component product, the container must display the VOC content as mixed or catalyzed.
(vii) Effective 06/18/14, 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.

(d) Faux Finishing Coatings

(i) Effective 06/18/14 the labels of all clear topcoat Faux Finishing Coatings shall prominently display the statement “This product can only be sold or used as part of a Faux Finishing Coating system”.

(e) Industrial Maintenance Coatings

(i) The labels of all Industrial Maintenance Coating subject to this rule shall display on the label or lid of the container in which the Coating is sold or distributed one or more of the descriptions listed in subsections (a) - (c) below:

a. “For industrial use only”.
b. “For professional use only”.
c. “Not for Residential use” or “Not intended for Residential use”.

(f) Clear Brushing Lacquers

The labels of all Clear Brushing Lacquers shall prominently display the statements “For brush application only,” and “This product must not be thinned or sprayed”.

Category is eliminated as of 06/18/14.

(g) Rust Preventative Coatings

(i) The labels of all Rust Preventative Coatings shall prominently display the statement “For Metal Substrates Only”.

(h) Specialty Primers, Sealers, and Undercoaters

(i) Effective until 06/18/14, the labels of all Specialty Primers, Sealers, and Undercoaters shall prominently display one or more of the descriptions listed in subsections (a) - (e) below. Effective on or after 06/18/14, the labels of all Specialty Primers, Sealers and Undercoaters shall prominently display one or more of the descriptions listed in subsection (a)-(c). On or after 06/18/14, subsections (d)-(e) will no longer be effective.

a. For fire-damaged substrates
b. For smoke-damaged substrates
c. For water-damaged substrates
d. For excessively chalky substrates.
e. For blocking stains

(ii) Until 06/18/14, the Specialty Primer, Sealer, and Undercoater category includes coatings formulated to seal excessively chalky surfaces. An excessively chalky surface is one that is defined as having a chalk rating of four or less as determined by ASTM Designation D 4214-07. Until 06/18/14, the labels of Specialty Primers, Sealers, and Undercoaters may display "For excessively chalky substrates" instead of, or in conjunction with, one or more of the descriptions listed in Section (D)(1)(h)(i) above.

(i) Reactive Penetrating Sealers

(i) Effective 06/18/14, the labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer".

(j) Stone Consolidants

(i) Effective 06/18/14 the labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant – For Professional Use Only"

(k) Quick Dry Enamels

(i) The labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time.

(ii) Category is eliminated as of 06/18/14.

(l) Nonflat - High Gloss Coatings

(i) The labels of all Nonflat - High Gloss Coatings shall prominently display the words "High Gloss".

(m) Wood Coatings

(i) Effective 06/18/14, the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only".

(n) Zinc Rich Primers

(i) Effective 06/18/14, the labels of all Zinc Rich Primers shall prominently display the statement display one or more of the descriptions listed in subsections (a) - (c) below.

a. "For professional use only".
b. "For industrial use only".
c. "Not for residential use" or "Not intended for residential use".

(E) Reporting Requirements

(1) Sales Data

(a) 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 of written request, provide information, including, but not limited to:

(i) The name and mailing address of the manufacturer;
(ii) The name, address and telephone number of a contact person;
(iii) The name of the Coating product as it appears on the label and the applicable Coating category;
(iv) Whether the product is marketed for interior or exterior use or both;
(v) The number of gallons sold in California in containers greater than one (1) liter (1.057 quart) and equal to or less than one (1) liter (1.057 quart);
(vi) 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 (1) liter have a different VOC Content than containers greater than one (1) liter, list separately. If the Coating is a multi-component product, provide the VOC Content as mixed or catalyzed;
(vii) The names and Chemical Abstracts Service (CAS) numbers of the VOC constituents in the product;
(viii) The names and CAS numbers of any compounds in the product specifically exempted from the VOC definition, as referenced in subsection (B)(77);
(ix) Whether the product is marketed as solventborne, waterborne, or 100 percent solids;
(x) Description of resin or binder in the product;
(xi) Whether the Coating is a single-component or multi-component product;
(xii) The density of the product in pounds per gallon;
(xiii) The percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition, as referenced in subsection (B)(77); and
(xiv) The percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition, as referenced in subsection (B)(77).

(b) All sales data listed in subsections (E)(1)(a)(i) through (E)(1)(a)(xiv) shall be maintained by the responsible official for a minimum of three (3) years. Sales data submitted by the responsible official to the Executive Officer of the CARB 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.

(c) Although Tertiary Butyl Acetate (tBAc) is exempt as a VOC when determining VOC content of a coating and compliance with emission limitations, it remains a VOC for purposes of all recordkeeping, emissions inventory, and dispersion modeling and must be treated as such.

(F) Administrative Requirements

(1) District Rule 442 Applicability

(a) Any Coating, Coating operation, or facility which is exempt from all or a portion of the VOC limits of this rule shall comply with the provisions of District Rule 442.

(2) Severability

(a) Each provision of this rule shall be deemed severable, and in the event that any provision of this rule is held to be invalid, the remainder of this rule shall continue in full force and effect.

(G) Compliance Provisions and Test Methods

(1) Calculation of VOC Content

(a) For the purpose of determining compliance with the VOC Content limits in Table 1 and Table 2, the VOC Content of a Coating shall be determined by using the procedures described in subsection (i) or (ii) below, as appropriate. If the manufacture does not recommend thinning, the VOC Content must be calculated for the product as supplied. The VOC Content of a Tint Base shall be determined without Colorant that is added after the Tint Base is manufactured. 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.

(i) VOC Regulatory

With the exception of Low Solids Coatings, determine the VOC Content in grams of VOC per liter of Coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water and Exempt Compounds. Determine the VOC Content using equation 1 as follows:

Equation 1-VOC Regulatory is the weight of VOC per volume of coating, less the volume of water and exempt compounds.

$$VOC\ Regulatory = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})}$$

Where:

VOC Regulatory	=	grams of VOC per liter of Coating
W_S	=	weight of volatiles, in grams
W_W	=	weight of water, in grams
W_{ec}	=	weight of Exempt Compounds, in grams
V_m	=	volume of Coating, in liters
V_W	=	volume of water, in liters
V_{ec}	=	volume of Exempt Compounds, in liters

(ii) VOC Actual

For Low Solids Coatings, determine the VOC Content in units of grams of VOC per liter of Coating thinned to the manufacturer's maximum recommendation, including the volume of any water and Exempt Compounds. Determine the VOC Content using equation 2 as follows:

Equation 2:-VOC Actual is the weight of VOC per volume of coating.

$$VOC\ Actual_{ls} = \frac{(W_s - W_w - W_{ec})}{(V_m)}$$

Where:

VOC $Actual_{ls}$	=	The VOC Content of low solids coating in grams of VOC per liter of Coating
W_S	=	weight of volatiles, in grams
W_W	=	weight of water, in grams
W_{ec}	=	weight of Exempt Compounds, in grams
V_m	=	Volume of Coating, in liters

(2) VOC Content of Coatings

(a) To determine the physical properties of a Coating in order to perform the calculations in subsection (G)(1), the reference method for VOC Content is USEPA Method 24, incorporated by reference in subsection (G)(5)(y), except as provided in subsections (G)(3) and (G)(4).

(b) An alternative method to determine the VOC Content of Coatings is South Coast Air Quality Management District Method 304-91 (Revised February 1996), incorporated by reference in subsection (G)(5)(b).

(c) The Exempt Compounds content shall be determined by South Coast Air Quality Management District Method 303-91 (Revised August 1996), Bay Area Air Quality Management District Method 41, or Bay Area Air Quality Management District Method 43, incorporated by reference in subsections (G)(5)(b), (G)(5)(d), and (G)(5)(e).

(d) To determine the VOC Content of a Coating, the manufacturer may use USEPA Method 24, or an alternative method as provided in subsection (G)(3), formulation data, or any other reasonable means for predicting that the Coating has been formulated as intended (e.g., quality assurance checks, record keeping).

(i) However, if there are any inconsistencies between the results of USEPA Method 24 test and any other means for determining VOC Content, the USEPA Method 24 test results will govern, except when an alternative method is approved as specified in subsection (G)(3). The APCO may require the manufacturer to conduct a USEPA Method 24 analysis.

(3) Alternative Test Methods

(a) Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with subsection (G)(2), after review and approved in writing by the District, CARB, and USEPA, may also be used.

(4) Methacrylate Traffic Marking Coatings

(a) Analysis of methacrylate multicomponent Coatings used as Traffic Marking Coatings shall be conducted according to a modification of USEPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in subsection (G)(5)(l).

(b) 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.

(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:

(a) Acid Content of Coatings: The acid content of a coating shall be determined by ASTM Designation D 1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products".

(b) Alternative VOC Content of Coatings: The VOC Content of Coatings may be analyzed either by U.S. EPA Method 24 or South Coast Air Quality Management District Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," *South Coast Air Quality Management District Laboratory Methods of Analysis for Enforcement Samples*.

(c) Aluminum Roof Coatings: The metallic content of the Coating 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".

(d) Exempt Compounds--Parachlorobenzotrifluoride (PCBTF): The Exempt Compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section (G) by Bay Area Air Quality Management District Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," *Bay Area Air Quality Management District Manual of Procedures*, Volume III, adopted 12/20/95.

(e) Exempt Compounds--Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as Exempt Compounds for compliance with Section (G) by Bay Area Air Quality Management District Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," *Bay Area Air Quality Management District Manual of Procedures*, Volume III, adopted 11/6/96.

(f) Faux Finishing Coating: The metallic content of the Coating 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".

(g) Flame Spread Index: The flame spread index of a fire-retardant Coating shall be determined by ASTM Designation E 84-07, "Standard Test Method for Surface Burning Characteristics of Building Materials".

(h) Fire Resistance Rating: The fire resistance rating of a fire-resistive Coating shall be determined by ASTM Designation E 119-07, "Standard Test Methods for Fire Tests of Building Construction Materials".

((i) Gloss Determination: The gloss of a Coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss".

(j) Hydrostatic Pressure for Basement Specialty Coatings: ASTM D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry.

(k) Metallic Pigmented Coating: The metallic content of a Coating 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," *South Coast Air Quality Management District Laboratory Methods of Analysis for Enforcement Samples*.

(l) 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" (September 11, 1998).

(m) Mold and Mildew Growth for Basement Specialty Coatings: ASTM D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation".

(n) Other Exempt Compounds: The content of compounds exempt under U.S. EPA Method 24 shall be analyzed by South Coast Air Quality Management District Method 303-91 (Revised 1996), "Determination of Exempt Compounds," *South Coast Air Quality Management District Laboratory Methods of Analysis for Enforcement Samples*.

(o) Pre-Treatment Wash Primer: ASTM D1613-06, “Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products”.

(p) Reactive Penetrating Sealer: Chloride Screening Applications: National Cooperative Highway Research Report 244 (1981), “Concrete Sealers for the Protection of Bridge Structures”.

(q) Reactive Penetrating Sealer Water Repellency: ASTM C67-07, “Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile”; or ASTM C97-02, “Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone”; or ASTM C140-06, “Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units”.

(r) Reactive Penetrating Sealer Water Vapor Transmission: ASTM E96/E96M-05, “Standard Test Method for Water Vapor Transmission of Materials”.

(s) Stone Consolidants: ASTM E2167-01, “Standard Guide for Selection and Use of Stone Consolidants”.

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(t) Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D 4214-07, “Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films”.

(u) Tub and Tile Refinish Coating Abrasion Resistance: ASTM D 4060-07, “Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser”.

(v) Tub and Tile Refinish Coating Adhesion: ASTM D 4585-99, “Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation” and ASTM D3359-02, “Standard Test Methods for Measuring Adhesion by Tape Test” (see Section (B), Tub and Tile Refinish Coating.

(w) Tub and Tile Refinish Coating Hardness: ASTM D 3363-05, “Standard Test Method for Film Hardness by Pencil Test”.

(x) Tub and Tile Refinish Coating Water Resistance: ASTM D 4585-99, “Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation” and ASTM D714-02e1, “Standard Test Method for Evaluating Degree of Blistering of Paints”.

(y) VOC Content of Coatings: The VOC Content of a Coating shall be determined by USEPA 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".

(z) Waterproofing Membrane: ASTM C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course".

[SIP: See SIP Table at
http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921]

Table 1
VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS

Limits are expressed in grams of VOC per liter[a] of Coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, Exempt Compounds, or Colorant added to tint bases. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the Coating container.

Coating Category	Effective 03/18/2003	Effective 06/18/2003	Effective, 01/01/2004	Effective 6/18/2014
Primary Coatings				
Flat Coatings	250	100		50
Nonflat Coatings	250	150		100
Nonflat-High Gloss Coatings	250			150
Specialty Coatings				
Aluminum Roof Coatings				400
Basement Specialty Coatings				400
Bituminous Roof Coatings	420	300		50
Bituminous Roof Primers	420	350		
Bond Breakers	350			
Concrete Curing Compounds	350			
Concrete/Masonary Sealers				100
Driveway Sealers				50
Dry Fog Coatings	400			150
Faux Finishing Coatings	350			
Fire Resistive Coatings	350			
Floor Coatings	400	250		100
Form-Release Compounds		250		
Graphic Arts Coatings (Sign Paints)	500			
High Temperature Coatings		420		
Industrial Maintenance Coatings	420		250	
Low Solids Coatings	120_a			
Magnesite Cement Coatings	450			
Mastic Texture Coatings	300			100
Metallic Pigmented Coatings	500			
Multi-Color Coatings	250			
Pre-Treatment Wash Primers	780	420		
Primers, Sealers, and Undercoaters	350	200		100
Reactive Penetrating Sealers				350
Recycled Coatings		250		
Roof Coatings	300	250		50
Rust Preventative Coatings		400		250
Shellacs:				
Clear	730			
Opaque	550			
Specialty Primers, Sealers, and Undercoaters	350			100
Stains	350	250		
Stone Consolidants				450
Swimming Pool Coatings	340			
Traffic Marking Coatings	150			100
Tub and Tile Refinish Coatings				420
Waterproofing Membranes				250
Wood Coatings				275
Wood Preservatives	350			
Zinc-Rich Primers				340
a: Limit is expressed as VOC Actual				

Table 2
VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS

Effective 06/18/14 the coating categories in Table 2 are eliminated and will be subject to the VOC limit of the applicable category in Table 1, except as provided in Section (C)(2), (C)(3), and (C)(5).

Limits are expressed in grams of VOC per liter of Coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, Exempt Compounds, or Colorant added to tint bases. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the Coating container.

Coating Category	Effective 06/18/14
Antenna Coatings	530
Antifouling Coatings	400
Clear Wood Coatings	
Clear Brushing Lacquers	680
Lacquers (including lacquer sanding sealers)	550
Sanding Sealers (other than lacquer sanding sealers)	350
Varnishes	350
Fire-Retardant Coatings:	
Clear	650
Opaque	350
Flow Coatings	420
Quick-Dry Enamels	250
Quick-Dry Primers, Sealers, and Undercoaters	200
Swimming Pool Repair and Maintenance Coatings	340
Temperature-Indicator Safety Coatings	550
Waterproofing Sealers	250
Waterproofing Concrete/Masonry Sealers	400

Adopted August 4, 1978

Rule 1120 - Asphalt Pavement Heaters 7/25/79

A person shall not operate an asphalt pavement surface heater or an asphalt heater-remixer for the purpose of maintaining, reconditioning, reconstructing or removing asphalt pavement unless all of the following requirements are met:

(a) Black or gray smoke emissions of more than 60 consecutive seconds duration shall not be discharged to the atmosphere and in aggregate, black or gray smoke emissions shall not exceed a total of three minutes in any one hour of heater operation. For the purpose of this rule, black or gray smoke is to be viewed by an observer at the point of greatest opacity.

(b) Visible emissions of more than 40% opacity, other than black or gray smoke, shall not be discharged to the atmosphere for a period or periods totalling more than 3 minutes in any one hour. For the purpose of this rule, visible emissions are to be viewed by an observer at a point no lower than 36-inches above the pavement.

(c) All units of equipment are fired with gaseous fuels that do not contain in excess of 80 ppm by volume of sulfur compounds calculated as H_2S, or with diesel fuels that do not contain more sulfur than specified by the California Air Resources Board.

(d) Grease, crack pouring materials or oily substances that burn or produce smoke are removed by mechanical grinding, by cold planing or by other mechanical means prior to the use of the heating equipment on the contaminanted area.

(e) Asphalt pavement at the work site is cleared of paper, wood, vegetation and other combustible refuse prior to operation of the heating equipment.

(f) The Executive Officer is notified of an operation using pavement heaters within 10 days after a contract is signed authorizing such work and again, at least 24 hours before an operation starts. Each notification shall describe the location, estimated starting time and an estimate of the time to complete the work.

(g) The equipment is operated only during days on which open burning is allowed. However, an operation that begins on a day when open burning is allowed, may be continued on successive days whether open burning is allowed or not allowed. Information concerning whether a proposed operating day meets the criteria specified in this subparagraph (g) may be obtained from the Executive Officer or his authorized representative.

ADOPTED
by the
South Coast Air Quality
Management District Board
Date: 8-4-78
Clerk of the Board

5/24/95

(Adopted December 1, 1978)(Amended March 10, 1995)

RULE 1121. CONTROL OF NITROGEN OXIDES FROM RESIDENTIAL TYPE, NATURAL GAS-FIRED WATER HEATERS

(a) Applicability

This rule applies to manufacturers, distributors, retailers, and installers of natural gas-fired water heaters, with heat input rates less than 75,000 Btu per hour.

(b) Definitions

For the purpose of this rule:

(1) BTU means British thermal unit or units.

(2) EXECUTIVE OFFICER means the South Coast Air Quality Management District Executive Officer or designee.

(3) HEAT OUTPUT means the product H_O as defined in Section 9.3 of the Protocol.

(4) INDEPENDENT TESTING LABORATORY means a testing laboratory that meets the requirements of District Rule 304, subdivision (k) and is approved by the District to conduct certification testing under the Protocol.

(5) MOBILE HOME WATER HEATER means a closed vessel manufactured exclusively for mobile home use in which water is heated by combustion of gaseous fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

(6) NO_X EMISSIONS means the sum of nitric oxide and nitrogen dioxide in the flue gas, collectively expressed as nitrogen dioxide.

(7) PROTOCOL means South Coast Air Quality Management District Protocol: *Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers*, January 1995.

(8) RATED HEAT INPUT CAPACITY means the heat input capacity specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the new maximum heat input shall be considered as the rated heat input capacity.

(9) WATER HEATER means a closed vessel other than a mobile home water heater in which water is heated by combustion of gaseous fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

(c) Requirements

A person shall not distribute, sell, offer for sale, or install within the South Coast Air Quality Management District:

(1) Gas-fired water heaters that:

(A) Emit nitrogen oxides in excess of 40 nanograms of NO_x (calculated as NO_2) per joule (93 lb per billion Btu) of heat output; or

(B) Are not certified in accordance with subparagraph (d).

(2) Gas-fired mobile home water heaters that:

(A) Emit nitrogen oxides in excess of 50 nanograms of NO_x (calculated as NO_2) per joule (116 lb per billion Btu) of heat output; or

(B) Are not certified in accordance with subparagraph (d).

(d) Certification

(1) The manufacturer shall obtain confirmation that each model of water heater complies with the applicable requirements of subdivision (c) from an independent testing laboratory prior to applying for certification. This confirmation shall be based upon emission tests of a randomly selected unit of each model and the Protocol shall be adhered to during the confirmation testing of all water heaters subject to this rule.

(2) When applying for certification of water heaters, the manufacturer shall submit to the Executive Officer the following:

(A) A statement that the model is in compliance with subdivision (c). The statement shall be signed and dated, and shall attest to the accuracy of all statements;

(B) General Information

(i) Name and address of manufacturer,

(ii) Brand name, and

(iii) Model number, as it appears on the water heater rating plate;

(C) A description of each model being certified; and

(D) A source test report verifying compliance with subdivision (c) for each model to be certified. The source test report shall be prepared by the confirming independent testing laboratory and shall contain all of the elements identified in Section 10 of the Protocol for each unit tested. The source test shall have been conducted no more than ninety days prior to the date of submittal to the Executive Officer

(3) When applying for certification of water heaters, the manufacturer shall submit the items identified in paragraph (d)(2) no more than ninety days after the date of the source test identified in subparagraph (d)(2)(D).

(4) The Executive Officer shall certify a water heater model which complies with the provisions of subdivision (c) and of paragraphs (d)(1), (d)(2), and (d)(3).

(5) Certification status shall be valid for three years from the date of approval by the Executive Officer. After the third year, recertification shall be required according to the requirements of paragraphs (d)(1) and (d)(2).

(6) The provisions of paragraph (d)(5) shall not apply to any water heater model which is included in a NO_x validation program approved by the Executive Officer. In order to be considered for approval by the Executive Officer, a NO_x validation program must, at a minimum, meet the following criteria:

(A) The program shall be administered by an entity which has no financial interest in any of the manufacturers participating in the program, or in any parent company or any subsidiary thereof;

(B) The program shall be administered in association with an efficiency verification program recognized by an agency of the Federal government; and

(C) The Protocol shall be adhered to for all NO_x emission testing associated with the program and such testing shall be conducted by an independent testing laboratory.

(e) Identification of Complying Heaters

The manufacturer shall display the model number of the water heater complying with subdivision (c) on the shipping carton and rating plate. The manufacturer shall also display the certification status on the shipping carton and on the water heater.

(f) Enforcement

The Executive Officer may periodically inspect distributors, retailers, and installers of water heaters located in the District and conduct such tests as are deemed necessary to insure compliance with subdivision (c).

(g) Exemptions

The provisions of this rule shall not apply to:

(1) Water heaters with a rated heat input capacity of 75,000 Btu per hour or greater.

(2) Water heaters used in recreation vehicles.

(h) Compliance Schedule

(1) The provisions of District Rule 1121 as adopted December 1, 1978 shall remain in effect through June 30, 1995.

(2) The provisions of this revision of Rule 1121 shall become effective July 1, 1995.

(3) The certification of one third of each manufacturer's models certified prior to July 1, 1995 shall expire on each of the following dates: July 1, 1996, July 1, 1997, and July 1, 1998.

(4) Each manufacturer of currently certified models of water heaters shall submit a compliance plan to the Executive Officer no later than December 31, 1995. The compliance plan shall identify by model number the specific water heater models to have their certification expire in each of the three years identified in paragraph (h)(3). The certification of any water heater model certified prior to July 1, 1995 which is not specifically identified in a compliance plan shall expire July 1, 1996.

5/13/93

(Adopted March 2, 1979)(Amended June 1, 1979)(Amended February 1, 1980)
(Amended July 8, 1983)(Amended May 5, 1989)(Amended April 5, 1991)

RULE 1122. SOLVENT DEGREASERS

(a) Applicability

This rule applies to all persons who own or operate remote reservoir cold cleaners, batch-loaded cold cleaners, open-top vapor degreasers, and all types of conveyorized degreasers that carry out solvent cleaning operations with a solvent containing Volatile Organic Compounds (VOCs). Solvent cleaning operations that are regulated by this rule include, but are not limited to, the removal of uncured coatings, adhesives, inks, and contaminants such as dirt, soil, oil, and grease from parts, products, tools, machinery, and equipment.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) AIR-SOLVENT INTERFACE is the point of contact between the exposed solvent and air.

(2) AIR-VAPOR INTERFACE is the point of contact between the exposed solvent vapor and air.

(3) AIR-VAPOR INTERFACE SURFACE AREA

(A) Means the geometric surface area of the open top of the degreaser for OPEN-TOP VAPOR DEGREASERS; or

(B) Means the combined geometric surface areas of the projected plane surfaces of all degreaser openings for CONVEYORIZED DEGREASERS.

(4) AIR-SOLVENT INTERFACE SURFACE AREA means the combined geometric surface areas of the projected plane surfaces of all degreaser openings for CONVEYORIZED DEGREASERS.

(5) BATCH-LOADED COLD CLEANER is a degreaser that is designed to contain liquid solvent at a temperature below its boiling point and is used for cleaning objects in a batch-type operation.

(6) CONDENSER WATER FLOW SWITCH is a safety switch that turns off the sump heat if condenser water fails to circulate or rises above the design operating temperature.

(7) CONVEYORIZED DEGREASER is any degreaser which uses an integral, continuous, mechanical system for moving materials or parts to be cleaned into and out of a solvent liquid or vapor cleaning zone.

(8) DRAG-OUT is that solvent carried out of a degreaser that adheres to or is entrapped in the part being removed.

(9) DEGREASER is any equipment designed and used for holding a solvent to carry out solvent cleaning operations. Degreasers include, by way of illustration, and not limitation, remote reservoir cold cleaners, batch-loaded cold cleaners, open-top vapor degreasers, and conveyorized degreasers.

(10) DRYING TUNNEL is an add-on enclosure extending from the exit area of a conveyorized degreaser which reduces drag-out losses by containing evaporating solvent.

(11) EMULSION CLEANER is a liquid which contains a VOC-containing solvent suspended in water.

(12) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I (General)
chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)

(B) Group II (Under Review)
methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (FC-23)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115).

(13) FREEBOARD HEIGHT

(A) Is the distance from the top of the solvent to the top of the tank for BATCH-LOADED COLD CLEANERS; or

(B) Is the distance from the air-vapor interface to the top of the tank for OPEN-TOP VAPOR DEGREASERS; or

(C) Is the distance from either the air-solvent or air-vapor interface to the top of the tank for conveyorized degreasers.

(14) FREEBOARD RATIO is the freeboard height divided by the smaller of either the inside length or inside width of the degreaser.

(15) HIGH VOLATILITY SOLVENT is a solvent which is not classified as a low volatility solvent.

(16) LIQUID LEAK is a VOC-containing liquid leak from the degreaser at a rate of more than three drops per minute or a visible liquid mist.

(17) LOW VOLATILITY SOLVENT is a solvent which has an initial boiling point greater than 120°C (248°F) and whose initial boiling point exceeds the maximum operating temperature of the solvent cleaning operation by at least 100°C (180°F).

(18) OPEN-TOP VAPOR DEGREASER is any batch-loaded, boiling solvent degreaser.

(19) PERSON is any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, or other capacity, including any governmental entity or charitable organization.

(20) REFRIGERATED CONDENSER is an emission control device consisting of primary coils which carry a refrigerant to condense solvent vapor from the degreaser bath.

(21) REFRIGERATED FREEBOARD CHILLER is an emission control device which is mounted above the water jacket or primary condenser coils, consisting of secondary coils which carry a refrigerant to provide a chilled air blanket above the solvent vapor to reduce emissions from the degreaser bath.

(22) REMOTE RESERVOIR COLD CLEANER is any device in which liquid solvent is pumped through a sink-like work area which drains back into an enclosed container while parts are being cleaned.

(23) ROTATING BASKET is a perforated or wire mesh cylinder containing parts to be cleaned that is slowly rotated while proceeding through the degreaser.

(24) SOLVENT CLEANING OPERATION is the removal of adhesives, inks, uncured coatings, and contaminants, which include, by way of illustration

and not limitation, dirt, soil, and grease from parts, products, tools, machinery, and equipment.

(25) SOLVENT CONTAINER is that part of the degreaser that is intended to hold the cleaning solvent.

(26) SPRAY PUMP CONTROL SWITCH is a safety switch that prevents the spray pump from operating without an adequate vapor level.

(27) VAPOR LEVEL CONTROL SWITCH is a safety switch that turns off the sump heat when the solvent vapor level rises above the design operating level.

(28) VOLATILE ORGANIC COMPOUND (VOC) is any chemical compound which contains the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, exempt compounds, and halogenated hydrocarbons.

(29) WORKLOAD AREA means:

(A) the plane geometric surface area of the top of the submerged parts basket, or

(B) the combined plane geometric surface area(s) displaced by the submerged part(s), if no parts basket is used.

(c) General Requirements

Any person owning or operating a batch-loaded cold cleaner, an open-top vapor degreaser, or any type of conveyorized degreaser with a VOC-containing solvent shall meet the basic equipment and operating requirements as set forth below.

(1) Basic Equipment Requirements

(A) One of the following types of covers shall be used for open-top vapor degreasers and batch-loaded cold cleaners which are heated, agitated, or use high volatility solvents:

(i) Roll-Top Cover;

(ii) Canvas Curtain Cover;

(iii) Guillotine (Biparting) Cover;

(iv) Any other cover that slides off the degreaser in a horizontal motion and is designed such that it can be

opened or closed without disturbing the vapor layer or the solvent surface.

(B) All degreasers shall be fitted with an apparatus or cover which prevents escape of solvent vapors when the degreaser is not in operation.

(C) Use a facility or device for draining cleaned parts such that the drained solvent or drag-out is returned to the degreaser.

(2) Basic Operating Requirements

(A) The degreaser cover shall be operated in accordance with the manufacturer's specifications and shall be closed at all times except while processing work or performing maintenance on the degreaser.

(B) The parts to be cleaned shall be racked in a manner that will minimize the drag-out losses.

(C) Parts shall be drained immediately after the cleaning, until one of the following conditions exists:

(i) At least 15 seconds have elapsed; or

(ii) Dripping of solvent ceases; or

(iii) The parts become visibly dry.

(D) The water separator shall be maintained in order to prevent water from returning to the surface of the boiling solvent sump or from becoming visibly detectable in solvent exiting the water separator.

(E) The solvent container shall be free of all liquid leaks. Auxiliary degreaser equipment, such as pumps, water separators, steam traps, or distillation units shall not have any liquid leaks, and visible tears and cracks. Any liquid leak, visible tear, or crack detected pursuant to the provisions of this subparagraph shall be repaired within one (1) calendar day, or the degreaser shall be drained of all solvent and shut down until replaced or repaired.

(F) All waste solvents shall be stored in properly identified, sealed containers and handled and disposed of in accordance with local, state, and federal regulations.

(G) Solvent flow cleaning shall be done within the vapor zone and consist of a liquid stream rather than a fine, atomized, or shower-

type spray. Solvent flow shall be directed downward to avoid turbulence at the air-vapor or air-solvent interface and to prevent liquid solvent from splashing outside of the degreaser.

(H) Degreasing of porous or absorbent materials, such as cloth, leather, wood, or rope, is prohibited.

(I) Solvent agitation, where necessary, shall be carried out only by pump recirculation, ultrasonics, a mixer, or by air agitation. Air agitation shall be carried out under the following conditions:

(i) The air agitation unit shall be equipped with a gauge and a device that limits air pressure into the degreaser to less than two pounds per square inch gauge; and

(ii) The cover must remain closed while the air agitation system is in operation.

(J) The vertical speed of a powered hoist or conveyor, if one is used, shall not be more than 3.4 meters per minute (11.2 feet per minute) when lowering and raising parts into the degreaser.

(K) The average draft rate in the work room, as measured parallel to the plane of the degreaser opening, shall not exceed 9.1 meters per minute (30 feet per minute), unless necessary to meet Occupational Safety and Health Administration (OSHA) requirements.

(L) Ventilation fans shall not be positioned in such a way as to direct air flow near the degreaser openings.

(M) The air ventilation rate in a hood, enclosure, or from a lip exhaust to a hood or enclosure shall not exceed 20 cubic meters per minute per square meter of air-vapor or air-solvent interface surface area, unless necessary to meet OSHA requirements.

(d) Batch-Loaded Cold Cleaners

In addition to the General Requirements of section (c), any person owning or operating a batch-loaded cold cleaner shall also meet all of the following:

(1) The applicable operating requirements of section (d) and paragraph (c)(2) shall be legibly written, and permanently and conspicuously posted

on or near the degreaser in such a manner that it is conveniently available to the operator for reference purposes;

(2) A degreaser loaded with a low volatility solvent must have a freeboard ratio of at least 0.50,

(3) A degreaser loaded with a high volatility solvent shall be fitted with a drainage facility inside the degreaser and have either:

(A) a water cover over the surface of the solvent if the solvent has a negligible solubility in water and has a density greater than that of water; or

(B) a freeboard ratio of at least 0.75.

(e) Open-Top Vapor Degreasers

In addition to the General Requirements of section (c), any person owning or operating an open-top vapor degreaser shall also meet all of the following:

(1) The applicable operating requirements of paragraph (e)(6) and paragraph (c)(2) shall be legibly written, and permanently and conspicuously posted on or near the degreaser in such a manner that it is conveniently available to the operator for reference purposes;

(2) Installation of the following safety switches on the degreaser:

(A) Vapor level control switch;

(B) Condenser water flow switch, for water-cooled degreasers; and

(C) Spray pump control switch, for solvent flow cleaning.

(3) A freeboard ratio of:

(A) at least 0.75, for degreasers with an inside length or width equal to or greater than 10 feet,

(B) at least 1.0, for all other open-top vapor degreasers.

(4) Open-top vapor degreasers which have air-vapor interface surface areas of more than 1.0 square meter (10.8 square feet) shall be equipped with:

(A) A refrigerated freeboard chiller, designed such that the refrigerant temperature at the degreaser outlet does not exceed 4.4°C (40°F), or

(B) A carbon adsorption system pursuant to the provisions of section (g), or

(C) An enclosed batch-type design, with a programmable hoist, and a freeboard ratio of at least 1.0 regardless of the requirements of subparagraph (c)(1)(A) and paragraph (e)(5).

(5) In addition to the requirements in paragraph (e)(4) above, an open-top vapor degreaser which has an air-vapor interface surface area of more than 2.0 square meters (21.5 square feet) shall have automated, powered, or mechanically-assisted covers that slide off the degreaser in a horizontal motion.

(6) Specific Operating Requirements for Open-Top Vapor Degreasers:

(A) When equipped with a lip exhaust system, the exhaust fan shall be off whenever the degreaser is covered;

(B) The workload area shall not exceed more than half of the degreaser's air-vapor interface surface area. If the inside length or width of the degreaser is equal to or greater than 10 feet, the workload area may exceed half of the degreaser's open-top area provided the hoist speed, notwithstanding (c)(2)(J), while lowering and raising parts, does not exceed 1.7 meters per minute (5.5 feet per minute);

(C) At start up, the refrigerated condenser and the refrigerated freeboard chiller shall be turned on either simultaneously or before the sump heater is turned on. At shutdown, the sump heater shall be turned off, either simultaneously or before the condenser water and refrigerated freeboard chiller are turned off. The degreaser must be covered whenever the primary condenser is turned off;

(D) The workload shall be degreased in the vapor zone until condensation ceases.

(f) Conveyorized Degreasers

In addition to the General Requirements of section (c), any person owning or operating a conveyorized degreaser shall meet all of the following requirements:

(1) The applicable operating requirements of section (f) and paragraph (c)(2) shall be legibly written, and permanently and conspicuously posted

on or near the degreaser in such a manner that it is conveniently available to the operator for reference purposes;

(2) Install a high vapor cutoff thermostat with manual reset;

(3) A freeboard ratio of at least 0.75;

(4) Use of a drying tunnel that is connected to the main control enclosure, or use of other means such as a rotating or tumbling basket, that reduces drag-out losses;

(5) Construct entrances and exits that have an average clearance between each part and the edge of the degreaser opening of less than 10 centimeters (3.9 inches) or less than 10 percent of the width of the opening;

(6) Conveyorized degreasers which have air-vapor or air-solvent interface surface areas of more than 1.0 square meter (10.8 square feet), but less than or equal to 2.0 square meters (21.6 square feet), shall have either:

(A) Refrigerated freeboard chiller, designed such that the refrigerant temperature at the degreaser outlet does not exceed 4.4°C (40°F); or

(B) A carbon adsorption system pursuant to the provisions of section (g).

(7) Conveyorized degreasers which have air-vapor or air-solvent interface surface areas of more than 2.0 square meters (21.6 square feet) shall have either:

(A) A carbon adsorption system pursuant to the provisions of section (g); or

(B) A below-freezing refrigerated freeboard chiller, designed such that the refrigerant temperature at the degreaser outlet does not exceed -20°C (-4°F).

(g) Remote Reservoir Cold Cleaners

Any person owning or operating a remote reservoir cold cleaner shall meet the following requirements:

(1) The solvent vapors shall be prevented from escaping from the solvent container by means of closing a cover or a device, such as a valve, when the remote reservoir is not being used, cleaned, or repaired,

(2) The average draft rate in the work room, as measured parallel to the plane of the degreaser opening, shall not exceed 9.1 meters per minute (30 feet per minute), unless necessary to meet Occupational Safety and Health Administration (OSHA) requirements,

(3) The solvent container shall be free of all liquid leaks,

(4) Solvent flow cleaning shall be done within the vapor zone and consist of a liquid stream rather than a fine, atomized, or shower-type spray. Solvent flow shall be directed downward to avoid turbulence at the air-vapor or air-solvent interface and to prevent liquid solvent from splashing outside of the container;

(5) Degreasing of porous or absorbent materials, such as cloth, leather, wood, or rope, is prohibited;

(6) All waste solvents shall be stored in properly identified, sealed containers and handled and disposed of in accordance with local, state, and federal regulations;

(7) The solvent container shall be free of all liquid leaks. Auxiliary equipment, such as pumps or distillation units, shall not have any liquid leaks, and visible tears and cracks. Any liquid leak, visible tear, or crack detected pursuant to the provisions of this paragraph shall be repaired within one (1) calendar day, or the degreaser shall be drained of all solvent and shut down until replaced or repaired.

(h) Carbon Adsorption System Requirements

Any person owning or operating a carbon adsorption system, in association with any degreaser covered under this rule, shall meet the following requirements:

(1) The carbon adsorption system shall have a hood or enclosure with a delivery system or ductwork designed to collect degreaser emissions and to vent them to a carbon adsorption system with a control efficiency of at least 90 percent in terms of organic input to the bed;

(2) The output from the carbon adsorption system shall not be more than 25 parts per million (ppm), calculated as carbon;

(3) The hood or enclosure shall have a ventilation rate between 15 to 20 cubic meters per minute per square meter of air-vapor or air-solvent interface surface area (49.2 to 65.6 cubic feet per minute per square foot

of air-vapor or air-solvent interface surface area), unless otherwise required to meet OSHA standards.

(i) Compliance Test Methods

(1) The VOC content of materials subject to the provisions of this rule shall be determined by the EPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A). The exempt compounds' content shall be determined by South Coast Air Quality Management District (SCAQMD) Laboratory Methods of Analysis for Enforcement Samples - Section III, Method 22.

(2) The efficiency of the control device and the VOC content measured and calculated as carbon in the control device exhaust gases shall be determined by EPA Test Methods 25 and 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon).

(3) The initial boiling point of solvents shall be determined by ASTM Method D-1078-78, "Standard Test Method for Distillation Range of Volatile Organic Liquids."

(4) Measurements of ventilation rate in a hood or enclosure shall be done according to EPA Test Methods 2, 2A, 2C, or 2D. SCAQMD Method 1.1 shall be used to measure the number of traverse points.

(5) Measurements of average workroom draft rate shall be done parallel to the plane of the degreaser opening with a thermistor anemometer with an accuracy within ±2 feet per minute and a calibration traceable to the National Institute of Standards and Technology.

(j) Effective Date

All provisions of this rule, as amended on May 5, 1989, shall remain in effect until May 5, 1991. All persons subject to this rule shall comply with the applicable provisions on May 5, 1991, except equipment modifications, which require a permit to construct, shall comply with the applicable provisions no later than July 1, 1992.

(k) Recordkeeping

Records shall be maintained pursuant to Rule 109 for all applications subject to this rule, including those exempted under section (l).

(l) Exemptions

The provisions of this rule shall not apply to:

(1) Cleaning solvents that have a VOC content of 2 percent or less by volume, based on the total volume of the material as used.

(2) Notwithstanding the provisions of this paragraph, use of emulsion cleaners shall not be subject to the requirements of subparagraph (c)(2)(C) provided the parts are immediately rinsed with water.

(3) Except for subparagraphs (c)(1)(B), (c)(2)(A), and (c)(2)(F), solvent cleaning operations carried out in batch-loaded cold cleaners with open-top surface areas less than 0.1 square meter (1 square foot) and solvent usage less than one (1) gallon per day, shall not be subject to the provisions of this rule.

(4) Degreaser units using exempt solvent blends that contain less than 10 percent VOC by volume.

(**Adopted**: 07/06/79; **Amended**: 5/07/82; **Amended**: 01/06/84; **Amended**: 06/01/84; **Amended**: 01/09/87; **Amended**: 2/06/87; **Amended**: 04/03/87; **Amended** 05/05/89; **Amended**: 03/02/90; **Amended**: 04/06/90; **Amended**: 06/01/90; **Amended**: 11/02/90; **Amended**: 12/07/90; **Amended**: 08/02/91; **Amended** 03/06/92; **Amended**: 12/04/92; **Amended**: 12/10/93; **Amended**: 1/13/95; **Amended**: 12/13/96; **Amended:** 03/20/07; **Amended:** 08/20/13)

RULE 1124
Aerospace Assembly and Component Manufacturing Operations

(A) General

(1) Purpose

(a) To reduce Volatile Organic Compounds (VOC) emissions from aerospace assembly and component manufacturing operations.

(2) Applicability

(a) This rule applies to any operation associated with manufacturing and assembling products for Aircraft and Space Vehicles. The affected industries include commercial and military Aircraft, satellite, space shuttle and rocket manufacturers and their subcontractors.

(b) This rule also applies to maskant applicators, Aircraft refinishers, Aircraft Fastener Manufacturers, Aircraft operators, and Aircraft maintenance and service facilities.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) Ablative Coating – A Coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating. The ablative char surface serves as an insulative barrier, protecting adjacent components from the heat or open flame.

(2) Adhesion Promoter Coating – A Coating that is used to promote wetting and forms a chemical bond with a subsequently applied Sealant or other elastomer.

(3) Adhesive – Any substance that is used to bond one surface to another surface by attachment.

(4) Adhesive Bonding Primer – A Primer applied in a thin film to Aerospace Components for the purpose of corrosion inhibition and increased adhesive bond strength by attachment.

(5) Aerosol Coating Product – A pressurized Coating product containing pigments or resins that is dispensed by means of a propellant, and is packaged in a disposable can for hand-held application.

(6) Aerospace Component – The raw material, partial or completed fabricated part, assembly of parts, or completed unit of any Aircraft or Space Vehicle and includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons.

(7) Aerospace Material – Any Coating, Primer, Adhesive, Sealant, maskant, lubricant, Stripper or hand-wipe cleaning or clean-up solvent used during the manufacturing, assembly, refinishing, maintenance or service of an Aerospace Component.

(8) Air Brush Operations – Application of Aerospace Material with equipment operating at air pressure between 25 psi and 116 psi and an air volume of 0.7 cfm and 1.75, respectively.

(9) Aircraft – Any machine designed to travel through the air, without leaving the earth's atmosphere, whether heavier or lighter than air, including airplanes, balloons, dirigibles, helicopters, and missiles.

(10) Air Pollution Control Officer (APCO) – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750 and his or her designee.

(11) Antichafe Coating – A Coating applied to areas of moving Aerospace Components which may rub during normal operation.

(12) Anti-Wicking Wire Coating – The outer Coating of a wire which prevents fluid wicking into insulation of the wire.

(13) Barrier Coating – A Coating applied in a thin film to Fasteners to inhibit dissimilar metal corrosion and to prevent galling.

(14) Bearing Coating – A Coating applied to an antifriction bearing, a bearing housing, or the area adjacent to such bearing in order to facilitate bearing function or to protect be material from excessive wear. A material shall not be classified as a Bearing Coating if it can also be classified as a Dry Lubricative Material or a Solid-Film Lubricant.

(15) Bonding Maskant – A temporary Coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding.

(16) Caulking and Smoothing Compound – Semi-solid materials which are applied by Hand Application Methods and are used to aerodynamically smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a Caulking and Smoothing Compound if it can also be classified as a Sealant.

(17) Chemical Agent-Resistant Coating (CARC) – An exterior Topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents.

(18) Chemical Milling – The removal of metal by chemical action of acids or alkalis.

(19) Chemical Milling Maskant – A Coating applied directly to aluminum components to protect surface areas when Chemical Milling the component with a Type I or Type II Etchant. Type I Chemical Milling Maskants are used with a Type I Etchant and Type II Chemical Milling Maskants are used with a Type II Etchant. This definition does not include Bonding Maskants, Critical Use and Line Sealant Maskants, and Seal Coat Maskants. Additionally, maskants that must be used with a combination of Type I or II Etchants and any of the above types of maskants (i.e., Bonding, Critical Use and Line Sealer, and Seal Coat) are not included. Maskants that are defined as Specialty Coatings are not included in this definition.

(20) Chemical Processing Maskant – A Coating applied directly to an Aerospace Component to protect surface areas when anodizing, aging, bonding, plating, etching, and/or performing other chemical surface operations on the component.

(21) Clear Topcoat – A Topcoat that contains no visible pigments and is uniformly transparent when applied.

(22) Coating – A material that is applied to the surface of an aerospace vehicle or component to form a decorative, protective, or functional solid film, or the solid film itself.

(23) Coating Application Equipment – Equipment used for applying Coating to a substrate. Coating Application Equipment includes Coating distribution lines, Coating hoses, pressure-pots, spray guns, and hand-application equipment, such as hand-rollers, brushes, daubers, spatulas, and trowels.

(24) Commercial Exterior Aerodynamic Structure Primer – A Primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae, and landing gear and doors, for the purpose of extended corrosion protection and enhanced adhesion.

(25) Commercial Interior Adhesive – Materials used in the bonding of passenger cabin interior components. These components must meet the Federal Aviation Administration **(**FAA) fireworthiness requirements.

(26) Compatible Substrate Primer – Either compatible epoxy Primer or Adhesive Primer. Compatible epoxy Primer is a Primer that is compatible with the filled elastomeric Coating and is epoxy based. The Compatible Substrate Primer is an epoxypolyamide Primer used to promote adhesion of elastomeric Coatings such as Impact-Resistant Coatings. Adhesive Primer is a Coating that (1) inhibits corrosion and serves as a Primer applied to bare metal surfaces or prior to Adhesive application, or (2), is applied to surfaces that can be expected to contain fuel. Fuel-Tank Coatings are excluded from this category.

(27) Conformal Coating – A Coating applied to electrical conductors and circuit boards to protect them against electrical discharge damage and/or corrosion.

(28) Corrosion Prevention Compound System – A Coating system that provides corrosion protection by displacing water and penetrating mating surfaces, forming a protective barrier between the metal surface and moisture. Coatings containing oils or waxes are excluded from this category.

(29) Critical Use and Line Sealer Maskant – A temporary Coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid or alkaline solutions such as those used in anodizing, plating, Chemical Milling and processing of magnesium, titanium, or high-strength steel, high-precision aluminum Chemical Milling of deep cuts, and aluminum Chemical Milling of complex shapes. Materials used for repairs or to bridge gaps left by scribing operations (i.e., line sealer) are also included in this category.

(30) Cryogenic Flexible Primer – A Primer designed to provide corrosion resistance, flexibility, and adhesion of subsequent Coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (-275ºF and below).

(31) Cryoprotective Coating – A Coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry, and prevent ice formation.

(32) Cyanoacrylate Adhesive – A fast-setting, single component Adhesive that cures at room temperature. Also known as “super glue.”

(33) District – The Antelope Valley Air Quality Management District, the geographical area of which is described in District Rule 103.

(34) Dry Lubricative Material – Coatings consisting of lauric acid, cetyl alcohol, waxes or other non-cross linked or resin bound materials which act as a dry lubricant or protective coat.

(35) Electric- or Radiation-Effect Coatings – Include electrically conductive Coatings and Radiation-Effect Coatings and Coating systems the uses of which may include prevention of radar detection.

(36) Electronic Wire Coating – The outer electrical insulation Coating applied to tape insulation of a wire specifically formulated to smooth and fill edges.

(37) Electrostatic Discharge and Electromagnetic Interference (EMI) Coating – A Coating applied to Space-Vehicles, missiles, aircraft radomes, and helicopter blades to disperse static energy or reduce electromagnetic interference.

(38) Elevated-Temperature Skydrol-Resistant Commercial Primer – Primer applied primarily to commercial Aircraft (or commercial Aircraft adapted for military use) that must withstand immersion in phosphate ester (PE) hydraulic fluid (Skydrol 500b or equivalent) at the elevated temperature of 150°F for 1,000 hours.

(39) Epoxy Polyamide Topcoat – Coating used where harder films are required or in some areas where engraving is accomplished in camouflage colors.

(40) Exempt Compounds – A compound identified as exempt in 40 CFR 51.100(s).

(41) Facility – Any permit unit, group of permit units, non-permitted equipment or any combination thereof which emits or may emit an Air Pollutant; and belongs to a single major industrial group in the Standard Industrial Classification manual; and is located on a single parcel of land or on contiguous property within the District; and which is owned or operated by the same person or by persons under common control.

(42) Fastener – Any of various devices, including but not limited to, pins, collars, blots, nuts, and rivets for holding together two (2) or more objects or parts.

(43) Fastener Manufacturer – A Facility that coats Aircraft Fasteners, such as pins, collars, bolts, nuts, and rivets, with Solid-Film Lubricants for distribution to other Facilities.

(44) Fire-Resistant (Interior) Coating

(a) For civilian Aircraft, Fire-Resistant Interior Coatings are used on passenger cabin interior parts that are subject to FAA fireworthiness requirements.

(b) For military Aircraft, Fire-Resistant Interior Coatings are used on parts that are subject to the flammability requirements of MIL-STD-1630A and MIL-A-87721.

(c) For space applications, Fire-Resistant Interior Coatings are used on parts that are subject to the flammability requirements of SE-R-0006 and SSP 30233.

(45) Flexible Primer – A Primer that meets flexibility requirements such as those needed for Adhesive Bond Primed Fastener heads or on surfaces expected to contain fuel. The flexible Coating is required because it provides a compatible, flexible substrate over bonded sheet rubber and rubber-type Coatings as well as a flexible bridge between the Fasteners, skin, and skin-to-skin joints on outer Aircraft skins. This flexible bridge allows more Topcoat flexibility around Fasteners and decreases the chance of the Topcoat cracking around the Fasteners. The result is better corrosion resistance.

(46) Flight-Test Coating – A Coating applied to an Aircraft prior to flight testing to protect the Aircraft from corrosion and to provide required marking during flight test evaluation.

(47) Fuel-Tank Adhesive – An Adhesive used to bond components exposed to fuel that must be compatible with Fuel-Tank Coatings.

(48) Fuel-Tank Coating, General – A Coating applied to a fuel tank of an Aircraft to protect it from corrosion and/or bacterial growth.

(49) Fuel-Tank Coating, Rapid Cure – A Fuel-Tank Coating with shortened curing times and decreased sensitivity to low humidity during the curing process.

(50) Hand Application Method – The application of Aerospace Materials by manually held, non-mechanically operated equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

(51) High-Temperature Coating – A Coating that must withstand temperatures of more than 350ºF.

(52) High-Volume, Low-Pressure (HVLP) Spray – An Aerospace Materials application system which is operated with air pressure of between 0.1 and 10 pounds per square inch gauge (psig).

(53) Impact-Resistant Coating – A flexible Coating that protects Aerospace Components, such as Aircraft landing gear, and landing gear compartments, and other surfaces subject to impact and abrasion from runway debris.

(54) Insulation Covering – Material that is applied to foam insulation to protect the insulation from mechanical or environmental damage.

(55) Intermediate Release Coating – A thin Coating applied beneath Topcoats to assist in removing the Topcoat in depainting operations and generally to allow the use of less hazardous depainting methods.

(56) Lacquer Coating – A clear or pigmented Coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction. Lacquers are resoluble in their original solvent.

(57) Low-Solids Adhesive Coating, Primer or Sealant - An Adhesive Coating, Primer or Sealant which has less than one pound of solids per gallon of material. Such solids are the non-volatiles remaining after a sample is heated at 230ºF (110ºC) for one hour.

(58) Low-Solids Corrosion Resistant Primer – A corrosion resistant polyurethane compatible Primer with enhanced adhesion and rain erosion resistance which contains no more than 45 percent (45%) solids, by weight, as applied.

(59) Metallized Epoxy Coating – A Coating that contains relatively large quantities of flake pigmentation for appearance and/or added protection.

(60) Mold Release Coating – A Coating applied to the surface of a mold to prevent the molded component from sticking to the mold as it is removed.

(61) Non-Structural Adhesive – An Adhesive that bonds non-load-carrying Aircraft components in non-critical applications and is not covered in any other specialty Adhesive categories.

(62) Optical Anti-Reflection Coating – A Coating with a low reflectance in the infrared and visible wavelength range and is used for anti-reflection on or near optical and laser hardware.

(63) Part Marking Coating – Coatings or inks used to make identifying markings on materials, components, and/or assemblies. These markings may be either permanent or temporary.

(64) Phosphate Ester Resistant Ink – A Coating that is used for surface identification or marking which inhibits phosphate ester fluid corrosion.

(65) Photolithographic Maskant – A Coating applied by Photoresist Operation(s) directly to printed circuit boards, and ceramic and similar substrates to protect surface areas from Chemical Milling or Chemical Processing.

(66) Photoresist Operation – A process for the application or development of photoresist masking solution on a substrate, including preparation, soft bake, develop, hard bake, and stripping, and can be generally subdivided as follows:

(a) Negative Photoresist Operation is a process where the maskant hardens when exposed to light and the unhardened maskant is stripped, exposing the substrate surface for Chemical Milling or Chemical Processing.

(b) Positive Photoresist Operation is a process where the maskant softens when exposed to light and the softened maskant is stripped, exposing the substrate surface for Chemical Milling or Chemical Processing.

(67) Pre-Bonding Etchant – An acid or basic substance that is used to increase the strength of an adhesive bond by chemically altering the substrate surface morphology to increase the bonding surface area of aerospace wire Coatings to the underlying insulation layer.

(68) Pretreatment Coating – A Coating which contains no more than 12 percent (12%) solids, by weight and at least 0.5 percent (0.5%) acid by weight, to provide surface etching and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping.

(69) Primer – A Coating applied directly to an Aerospace Component for purposes of corrosion prevention, protection from the environment, functional fluid resistance and/or adhesion of subsequent Coatings, Adhesives, or Sealants.

(70) Primer Compatible with Rain Erosion-Resistant Coating – A Primer to which Rain Erosion-Resistant Coating is applied.

(71) Rain Erosion-Resistant Coating – A Coating that protects leading edges, flaps, stabilizers, and engine inlet lips against erosion caused by rain impact during flight.

(72) Repair Coating – A Coating used to recoat portions of a product which has sustained mechanical damage to the Coating following normal painting operations.

(73) Rework – The inspection, repair, and reconditioning of Aerospace Components subject to this rule.

(74) Rocket Motor Bonding Adhesive – Adhesive used in rocket motor bonding applications.

(75) Rocket Motor Nozzle Coating – A catalyzed epoxy Coating system used in elevated temperature applications on rocket motor nozzles.

(76) Rollable, Brushable or Extrudable Sealant – A single or multi-component polymeric material used to seal many types of joints, gaps, removable panels, and windows where moderate movement is expected. Such material may be applied by rolling brushing extruding or daubing.

(77) Rubber-Based Adhesive – A quick setting contact cement that provides a strong, yet flexible bond between two mating surfaces that may be of dissimilar materials.

(78) Scale Inhibitor Coating – A Coating that is applied to the surface of a part prior to thermal processing to inhibit the formation of tenacious scale.

(79) Screen Print Ink – An ink used in screen printing processes during fabrication of decorative laminates and decals.

(80) Sealant – Viscous semisolid materials that fill voids in order to seal out water, fuel, and other liquids and solids, and in some cases, air movement.

(81) Seal Coat Maskant – An overcoat applied over a maskant to improve abrasion and chemical resistance during production operations.

(82) Silicone Insulation Material – An insulating material applied to exterior metal surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust. These materials differ from Ablative Coatings in that they are not "sacrificial."

(83) Solid-Film Lubricant – A very thin Coating consisting of a binder system containing as its chief pigment material one or more of the following: molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying surfaces.

(84) South Coast Air Quality Management District (SCAQMD) – The air quality district created pursuant to Division 26, Part 3, Chapter 5.5 of the California Health & Safety Code (commencing with §40400).

(85) Space Vehicle – A vehicle designed to travel beyond the earth's atmosphere.

(86) Specialized Function Coating – A Coating that fulfills extremely specific engineering requirements that are limited in application and are characterized by low volume usage. This category excludes Coatings covered in other Specialty Coating categories.

(87) Specialty Coating – A Coating that, even though it meets the definition of a Primer, Topcoat, or self-priming Topcoat, has additional performance criteria beyond those of Primers, Topcoats, and self-priming Topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection.

(88) Stencil Coating – An ink or Coating that is rolled, sprayed with an airbrush or touch-up gun, or brushed while using a template to add identifying letters and or numbers to Aerospace Components.

(89) Stripper – A volatile liquid applied to remove cured Aerospace Material or their residues.

(90) Structural Adhesive – Autoclavable – An Adhesive used to bond load-carrying Aircraft components and is cured by heat and pressure in an autoclave.

(91) Structural Adhesive, High Temperature – Autoclavable – An Adhesive used to bond load-carrying Aircraft Components which is cured by heat and pressure in an autoclave, and can withstand service temperatures above 450° F (232° C).

(92) Structural Adhesive – Non-Autoclavable – An Adhesive cured under ambient conditions and is used to bond load-carrying Aircraft components or other critical functions, such as nonstructural bonding in the proximity of engines.

(93) Temporary Protective Coating – A Coating applied to an Aerospace Component to protect it from mechanical and environmental damage during manufacturing.

(94) Thermal Control Coating – A Coating formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate.

(95) Topcoat – A Coating applied over a Primer or other Coating on an aerospace vehicle or component for purposes such as appearance, identification, camouflage, or protection. Topcoats that are defined as Specialty Coatings are not included in this definition.

(96) Touch-Up Operation – The application of Aerospace Materials by brush, air brush, detail HVLP spray equipment outside of a permitted paint enclosure to repair minor surface damage and imperfections after the main Coating process.

(97) Transfer Efficiency – The ratio of the weight or volume of Coating solids adhering to an object to the total weight or volume, respectively, of Coating solids used in the application process, expressed as a percentage.

(98) Type I Etchant – A Chemical Milling etchant that contains varying amounts of dissolved sulfur and does not contain amines.

(99) Type II Etchant – A Chemical Milling etchant that is a strong sodium hydroxide solution containing amines.

(100) Unicoat – A Coating which is applied directly to an Aerospace Component for purposes of corrosion protection, environmental protection, and functional fluid resistance that is not subsequently Topcoated.

(101) United States Environmental Protection Agency (USEPA) – The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(102) Volatile Organic Compound (VOC) – Any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds as listed in 40 CFR 51.100(s).

(103) Wet Fastener Installation Coating – A Primer or Sealant applied by dipping, brushing, or daubing to Fasteners that are installed before the Coating is cured.

(104) Wing Coating – A corrosion-resistant Coating that is resilient enough to withstand the flexing of the wings.

(C) Requirements

(1) VOC Content of Coatings

(a) A person shall not apply to Aerospace Components any Aerospace Materials, including any VOC-containing materials added to the original Aerospace Materials supplied by the manufacturer, which contain VOC in excess of the limits specified below:

SPECIALTY COATING VOC LIMITS

Grams Per Liter of Coating Less Water and Less Exempt Compounds	
AEROSPACE MATERIALS	**VOC Limit**
PRIMERS	--
General	350
Adhesive Bonding Primers	--
Commercial Aircraft	250
Military Aircraft	805
Commercial Exterior Aerodynamic Structure Primer	650
Compatible Substrate Primer	780
Cryogenic Flexible Primer	645
Elevated-Temperature Skydrol-Resistant Commercial Primer	740
Flexible Primer	640
Low-Solids Corrosion Resistant Primer	350
Primer Compatible with Rain Erosion-Resistant Coating	850
COATINGS	--
Ablative Coating	600
Adhesion Promoter Coating	850
Antichafe Coating	420
Bearing Coating	620
Chemical Agent-Resistant Coating	550
Conformal Coating	750
Cryoprotective Coating	600
Electric- or Radiation-Effect Coating	800
Electrostatic Discharge and Electromagnetic Interference (EMI) Coating	800
Fire-Resistant (Interior) Coating	--
Civilian	650
Military	800
Space	800
Flight-Test Coating	--
Used on Missiles or Single Use Aircraft	420
All Other	840
Fuel-Tank Coating	--
General	420
Rapid Cure	720

High-Temperature Coating	850
Impact-Resistant Coating	420
Intermediate Release Coating	750
Lacquer Coating	830
Metallized Epoxy Coating	700
Mold Release Coatings	780
Optical Anti-Reflection Coating	700
Part Marking Coating	850
Pretreatment Coating	780
Rain Erosion-Resistant Coating	800
Rocket Motor Nozzle Coating	660
Scale Inhibitor Coating	880
Space-Vehicle Coatings, Other: does not include Electric Discharge and EMI Protection Coating or Fire-Resistant (Interior) Coating	1000
Specialized Function Coating	890
Temporary Protective Coating	250
Thermal Control Coating	800
Topcoat	--
Clear	520
Epoxy Polyamide	660
Other	420
Unicoat Coating	420
Wet Fastener Installation Coating	675
Wing Coating	750
Wire Coatings	
Electronic Wire Coating	420
Anti-Wicking	420
Pre-Bonding Etchant	420
Phosphate Ester Resistant Ink	925
ADHESIVES	--
Commercial Interior Adhesive	760
Cyanoacrylate Adhesive	1020
Fuel-Tank Adhesive	620
Non-Structural Adhesive	250
Rocket Motor Bonding Adhesive	890
Rubber-Based Adhesive	850
Space Vehicle Adhesive	800
Structural Adhesive	--
Autoclavable	50
High Temperature - Autoclavable	650
Non-Autoclavable	850
SEALANTS	--
Rollable, Brushable or Extrudable Sealant	280
Fastener Sealant	675

Other	600
MASKANTS	--
Bonding Maskant	1230
Critical Use and Line Sealer Maskant	750
Chemical Milling Maskant	
For use with Type I Etchant	250
For use with Type II Etchant	160
For Chemical Processing *Less water, Exempt Compounds and perchloroethylene (PERC)	250*
Photolithographic Maskant	850
Seal Coat Maskant	1230
LUBRICANTS	--
Fastener Installation Lubricant (applied at time of Aircraft/component assembly)	--
Solid-Film Lubricant	880
Dry Lubricative Material	675
Fastener Lubricative Coating (applied at time of Fastener Manufacture)	--
Solid-Film Lubricant	250
Dry Lubricative Material	120
Barrier Coating	420
Non-Fastener Lubricative Coatings (applied at time of non-Fastener Manufacture)	--
Solid-Film Lubricant	880
Dry Lubricative Materials	675
OTHER	--
Caulking and Smoothing Compound	850
Corrosion Prevention Compound System	710
Insulation Covering	740
Screen Print Ink	840
Silicone Insulation Material	850

(b) Documents shall be provided to the APCO demonstrating that the Unicoat is being used in lieu of the application of a Primer and Topcoat, and the applicant must receive written approval for the use of the Unicoat specifying the conditions of application from the APCO.

(c) For Low-Solids Adhesives, Coatings, Primers or Sealants, the appropriate limits in subparagraph (C)(1)(a) shall be expressed in grams of VOC per liter of material.

(2) Solvent Use, Clean Up, and Stripping

(a) A person shall not use VOC-containing materials for cleaning or clean up, excluding Coating stripping and equipment cleaning unless:

(i) The VOC composite partial pressure is 45 mm Hg or less at a temperature of 20°C (68°F); or

(ii) The material contains 200 grams or less of VOC per liter of material.

(b) A person shall not use Stripper on Aerospace Components unless:

(i) It contains less than 300 grams of VOC per liter of material; or

(ii) The VOC composite partial pressure is 9.5 mm Hg (0.18 psia) or less at 20°C (68°F).

(c) A person shall not atomize any solvent into open air.

(3) Equipment Cleaning Operations

Cleaning of Coating Application Equipment shall comply with provisions of Rule 1171 – *Solvent Cleaning Operations*.

(4) Storage of VOC-Containing Materials

All VOC containing material, used or unused, including but not limited to surface Coatings, thinners, cleanup solvents, or surface preparation materials, and all solvent laden cloth and paper, shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times except during extraction or introduction of material for mixing, use or storage.

(5) Transfer Efficiency

No person or Facility shall apply Aerospace Material unless it is applied with properly operating equipment or controlled, according to operating procedure specified by the equipment manufacturer or the APCO, and by the use of one of the following methods:

(a) Electrostatic application;

(b) Flow coater;

(c) Roll coater;

(d) Dip coater;

(e) High-Volume, Low-Pressure (HVLP) Spray;

(f) Hand Application Methods;

(g) Such other alternative application methods as are demonstrated to the APCO, using District-approved procedures, to be capable of achieving at least an equivalent Transfer Efficiency to method (C)(5)(e) and for which written approval of the APCO has been obtained; or

(h) Approved air pollution control equipment under paragraph (C)(6).

(6) Control Equipment

Owners and/or operators may comply with provisions of paragraphs (C)(1), (C)(2), and (C)(5) by using approved air pollution control equipment provided that the VOC emissions from such operations and/or materials are reduced in accordance with provisions of (a) and (b) below.

(a) The control device shall reduce emissions from an emission collection system by at least 95 percent (95%), by weight, or by reducing the output of the air pollution control device to less than 50 ppm calculated for carbon with no dilution.

(b) The owner/operator demonstrates that the system collects at least 90 percent (90%), by weight, of the emissions generated by the sources of emissions.

(7) Prohibition of Solicitation of Violations

(a) A person shall not solicit or require any other person to use, in the District, any Aerospace Material or combination of Aerospace Materials to be applied to any Aircraft Component subject to the provisions of this rule that does not meet the limits and requirements of this rule, or of an Alternative Emission Control Plan (AECP) approved pursuant to the provisions of (C)(8).

(b) The requirements of this paragraph shall apply to all written or oral agreements executed or entered into after April 3, 1987.

(8) Alternative Emission Control Plans

(a) An owner/operator may comply with the provisions of paragraph (C)(1) by means of an Alternative Emission Control Plan pursuant to Rule 108 – *Alternative Emission Control Plans*.

(D) Recordkeeping and Reporting Requirements

(1) Recordkeeping

(a) Records shall be maintained pursuant to the requirements of Rule 109 – *Recordkeeping for Volatile Organic Compound Emissions*.

(2) Reporting

(a) Persons who perform qualification acceptance testing on Aerospace Materials with a future compliance date for use in the District shall, on January 1 and July 1 of each year, submit a status report describing the

progress toward the development of Aerospace Materials which satisfy future compliance dates. These reports shall contain, at a minimum:

(i) Manufacturer, product number, VOC content, and applicable Coating category for each of the test candidates;
(ii) Test expenditures for the period;
(iii) Progress on candidates tested during this period;
(iv) Approvals received for Coatings which comply with future compliance dates; and,
(v) Volume of Coatings used in each Coating category for which there is a future compliance date.

(b) Facilities testing Coatings in the same Coating category may submit joint status reports. Once compliance with future compliance dates is achieved and a status report is submitted documenting such, no further status reports need be submitted.

(E) Compliance Procedures and Test Methods

(1) Calculations

(a) For the purpose of determining compliance with VOC content limits specified in section (C), grams of VOC per liter of Aerospace Material shall be determined by using the following formulas as applicable:

(i) For Aerospace Materials not containing reactive diluents, grams of VOC per liter of Coating, less water and less Exempt Compounds shall be determined as follows:

$$G_{VOC/LoC/} = \frac{- \quad -/}{V_m - V/ - V/}$$

Where:

$G_{VOC\ LoC}$	=	Grams of VOC per liter of Coating, less water and less Exempt Compounds.
W_s	=	Weight of volatile compounds, in grams.
W_w	=	Weight of water, in grams.
W_{es}	=	Weight of Exempt Compounds, in grams.
V_m	=	Volume of material, in liters.
V_w	=	Volume of water, in liters.
V_{es}	=	Volume of Exempt Compounds, in liters.

(ii) For Aerospace Materials that contain reactive diluents, grams of VOC per liter of coating, less water and less Exempt Compounds shall be determined as follows:

$$G_{VOC/LoC/} = \frac{- \quad -/}{V_m - V/ - V/}$$

Where:

$G_{VOC\ LoC}$	=	Grams of VOC per liter of Coating, less Water and less Exempt Compounds.
W_s	=	Weight of volatile compounds evolved during curing and analysis, in grams.
W_w	=	Weight of water evolved during curing and analysis, in grams.
W_{es}	=	Weight of Exempt Compounds evolved during curing and analysis, in grams.
V_m	=	Volume of material prior to reaction, in liters.
V_w	=	Volume of water evolved during curing and analysis, in liters.
V_{es}	=	Volume of Exempt Compounds evolved during curing and analysis, in liters.

(b) Total grams of VOC per liter of Aerospace Material shall be determined using the following formula:

$$G_{VOC/LoC/} = \frac{- \quad -/}{V_{m/}}$$

Where:

$G_{VOC\ LoC}$	=	Grams of VOC per liter of Coating
W_s	=	Weight of volatile compounds, in grams.
W_w	=	Weight of water, in grams.
W_{es}	=	Weight of Exempt Compounds, in grams.
V_m	=	Volume of material, in liters.

(c) The VOC composite partial pressure shall be determined as follows:

$$PP_{c/} = /\sum_{i=1}^{n/} \frac{\frac{i/}{M/_{i/}} \times /VP_i}{/M/ + /M/ + /\sum_{i=1}^{n/} /M/_{i/}}$$

Where:

W_i	=	Weight of the "i"th VOC compound, in grams.
W_w	=	Weight of water, in grams.
W_e	=	Weight of Exempt Compound, in grams.
MW_i	=	Molecular weight of the "i"th VOC compound, in grams per gram-mole.
MW_e	=	Molecular weight of Exempt Compound, in grams per gram-mole.
PP_c	=	VOC composite partial pressure at 20°C, in mm Hg.
VP_i	=	Vapor pressure of the "i"th VOC compound at 20°C,

in mm Hg.

(2) VOC Content of Aerospace Materials

(a) To determine the physical properties of an Aerospace Material in order to perform the calculations in subsection (E)(1), the following reference methods shall be used:

(i) EPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A).

a. Analysis done according to EPA Method 24 shall utilize ASTM Method D-2369-95 (Standard Test Method for Volatile Content of Coatings), referenced in EPA Method 24.

b. The exempt solvent content shall be determined using SCAQMD Test Methods 302-91 (Distillation of Solvents from Paints, Coatings and Inks, February 1993) and 303-91 (Determination of Exempt Compounds, August 1996) (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual) or;

(ii) SCAQMD Test Methods 302, 303, and 304 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual).

(b) The following classes of compounds listed below will be analyzed as Exempt Compounds for compliance with subdivision (C), only at such time as manufacturers specify which individual compounds are used in the Coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA and the SCAQMD, that can be used to quantify the amounts of each Exempt Compound.

(i) 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 sulfur bonds only to carbon and fluorine.

(3) Test Methods

(a) Efficiency of the control device shall be determined according to EPA Method 25, 25A, or SCAQMD Test Method 25.1 (Total Gaseous Non-Methane Emissions, February 1991) or SCAQMD Test Method 25.3 (Clean-Fueled Combustion Sources, March 2000). Emissions determined to exceed any limits established by this rule through the use of either of the above-referenced test methods shall constitute a violation of this rule.

(b) The capture efficiency of the emissions collection system shall be determined by the USEPA method 204A-F and the most recent version of USEPA's *Guidelines for Determining Capture Efficiency* or any other method approved by the USEPA, the California Air Resources Board, and the SCAQMD.

(c) The Transfer Efficiency of alternative Coating application methods shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989."

(d) The identity and quantity of components in solvents shall be determined in accordance with SCAQMD test method 308-91 (Quantitation of Compounds by Gas Chromatography, February 1993) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual. The VOC composite partial pressure is calculated using the equation in paragraph (E)(1)(c).

(e) Multiple Test Methods

(i) When more than one test method or set of test methods are 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 the rule.

(f) Any applicable alternative test method may be used so long as such method has been approved by USEPA, CARB and the APCO.

(F) Administrative Requirements

(1) Rule 442 Applicability

(a) Any Aerospace Material or Facility which is exempt from all or a portion of this rule, shall comply with the provisions of Rule 442 – *Usage of Solvents*.

(G) Exemptions

(1) The provisions of paragraph (C)(1) of this rule shall not apply to Aerospace Materials with separate formulations that are used in volumes of less than 20 gallons per year provided that the total of all such formulations applied annually at a Facility is less than 200 gallons.

(2) The provisions of subdivision (C) of this rule shall not apply to a Facility which uses a total of less than three (3) gallons of VOC-containing Aerospace Materials on each and every day of operation.

(3) The provisions of paragraphs (C)(1) and (C)(5) of this rule shall not apply to incidental corrosion maintenance Repair Coating operations at military Facilities, provided that the Coating use at any maintenance repair location within the Facility does not exceed 1.5 gallons per day, and the total Coating usage for such operations at the Facility does not exceed five (5) gallons per day.

(4) The provisions of subparagraph (C)(2)(a) shall not apply to Space Vehicle manufacturing.

(5) The provisions of paragraph (C)(1) shall not apply to clear or translucent Coatings applied on clear or transparent substrates.

(6) The provisions of paragraph (C)(5) shall not apply to Touch-up Operations and Stencil Coatings provided that the Touch-up Operations and Stencil Coatings do not exceed 25 sq. ft. per Aircraft.

(7) The provisions of paragraph (C)(1) shall not apply to the recoating of assembled Aircraft at Rework facilities if original Coating formulations are used.

(8) The provisions of paragraph (C)(1) shall not apply to Adhesives with separate formulations that are used in volumes of less than ten (10) gallons per year.

(9) The provisions of subdivision (C) shall not apply to laboratories which apply Aerospace Materials to test specimens for purposes of research, development, quality control, and testing for production-related operations.

(10) The provisions of paragraph (C)(2) of this rule do not apply to the surface cleaning of solar cells, fluid systems, avionic equipment, and laser optics.

(11) The provisions of subdivision (D)(1) and (C)(5) shall not be applied to the application of materials that contain less than 20 grams per liter of VOC per liter of material.

(12) The provisions of paragraph (C)(5) shall not apply to the use of materials dispensed from airbrush operations provided that the paint reservoir on the air brush is eight (8) ounces or less and that the total amount of Coating used for Air Brush Operations at the Facility does not exceed five (5) gallons per year.

(13) The provisions of this rule shall not apply to Aerosol Coating Products.

See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921

(**Adopted**: 10/03/80; **Amended**: 02/01/85; **Amended**: 05/05/89; **Amended**: 02/02/90; **Amended**: 03/02/90; **Amended**: 05/06/90; **Amended**: 06/01/90; **Amended**: 11/02/90; **Amended**: 12/07/90; **Amended**: 08/02/91; **Amended**: 03/06/92; **Amended**: 07/09/93; **Amended**: 09/08/95; **Amended**: 03/08/96; **Amended**: 11/19/13)

RULE 1130
Graphic Arts

(A) General

(1) Purpose

(a) To reduce emissions of Volatile Organic Compounds (VOC) from Graphic Arts Printing Operations and Digital Printing Operations, and Paper, Film, Foil or Fabric Coating Operations.

(2) Applicability

(a) This rule is applicable to any Graphic Arts Printing Operations, Digital Printing Operations, Paper, Film, Foil or Fabric Coating Operations and to the Solvent Cleaning materials and processes associated with such operations in the District.

(b) The drying and curing processes applicable to Paper, Film, Foil or Fabric Operations include, but are not limited to, heated, forced-air dried, and non-heated processes.

(c) This rule is applicable to any person who solicits, specifies or manufactures any Ink, Coating or Adhesive containing VOC which is sold, offered for sale, or supplied for use in Graphic Arts and Paper, Film, Foil and Fabric Coating Operations in the District.

(d) This rule does not apply to screen printing operations subject to the provisions of Rule 1130.1 – *Screen Printing*.

(e) This Rule does not apply to the application of coatings to any plastic, rubber or glass products subject to the provisions of Rule 1145 – *Plastic, Rubber and Glass Coatings*.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) "Adhesive" – A material that is applied for the primary purpose of bonding two surfaces together by surface attachment. Adhesives may be used to facilitate the attachment of two surfaces or substances in varying degrees of permanence.

(2) "Aerosol Coating Product" – A pressurized Coating product containing pigments or resins that dispenses 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.

(3) "Application Equipment" – A device, including, but not limited to, a spray gun, brush, roller, and a Printing press, used to apply Adhesives, Coatings or Inks.

(4) "Application Process" – Any process where surface Coatings are applied and/or cured to Paper, Fabric, Foil and/or Film on a Coating Line. Such Coating Line shall include coating applicators, heating or drying ovens, any dryers, and any other equipment where VOC emissions occur.

(5) "Bench Scale Project" – A project (other than at a Research and Development Facility) that is operated on a small scale, such as one capable of being located on a laboratory bench top.

(6) "Blanket" – A synthetic rubber mat used to transfer or "offset" an image from a Printing plate to paper or other substrate, commonly used in Offset Lithography.

(7) "Blanket Repair Material" – The material used in Offset Lithographic Printing to correct low spots in the press Blanket.

(8) "Blanket Wash" – A Solvent used to remove Ink from the Blanket of a press.

(9) "California Air Resources Board (CARB)" – The California State Air Resources Board, the Executive Officer of CARB and his or her authorized representative, the powers and duties of which are described in Part 2 of Division 26 of the California Health & Safety Code (commencing with section 39500).

(10) "Capture Efficiency" – In percent, the ratio of the weight of the VOC in the effluent stream entering the Control Device to the weight of VOC emitted from Graphic Arts Printing Operations, both measured simultaneously, and can be calculated by the following equation:

$$Capture\ Efficiency = \left(\frac{W_c}{W_e} \right) \times 100$$

Where: W_c = weight of VOC entering Control Device
W_e = weight of VOC emitted

(11) "Coating" – The application of a uniform layer of material across the entire width of a substrate. Those machines which have both Coating and Printing units should be considered as performing a Printing Operation. Coating applications that are not performed in association with a Printing Operation are considered Coating Operations and are not Graphic Arts Printing Operations.

(12) "Coating Line" – A series of Coating applicators, flash-off areas, and any associated curing/drying equipment between one or more unwind/feed stations and one or more rewind/cutting stations.

(13) "Control Device" – Equipment such as an incinerator or adsorber, or cooler/condenser filtration used to prevent air pollutants from being emitted into the atmosphere.

(14) "Control Device Efficiency" – In percent, the ratio of the weight of the VOC removed by the Control Device from the effluent stream entering the Control Device to the weight of the VOC in the effluent stream entering the Control Device, both measured simultaneously, and can be calculated by the following equation:

$$Control\ Device\ Efficiency = \left(\frac{W_c - W_a}{W_c} \right) \times 100$$

Where: W_c = weight of VOC entering Control Device
W_a = weight of VOC discharged from the Control Device

(15) "Conventional Printing Operations" – Those Printing Operations that utilize physical masters, stencils, screens or plates during the Printing process. Conventional Printing Operations use technologies including, but not limited to, Offset Lithographic, Flexographic, Gravure, and Letterpress Printing.

(16) "Cured Adhesive, Cured Coating, or Cured Ink" – An Adhesive, Coating, or Ink that is dry to the touch.

(17) "Die Coater (or Slit Coater)" – A type of Application Equipment that coats an object by flowing Coatings through a slit directly onto the object moving past the slit.

(18) "Digital Printer" – A Printing device that uses a computer-driven machine to transfer an electronic image to a substrate through the use of Inks, toners, or other Graphic Arts Materials. Digital Printing technologies include, but are not limited to, various forms of Ink-Jet, Thermography, Electrophotography, Ionography, and Magnetography.

(19) "Digital Printing Operation" – Those Printing Operations that do not use a physical master, stencils, or plates but use digital data to control the deposition of Ink, toner or dye to create images.

(20) "Dip Coater" – A type of Application Equipment that coats objects by submerging the object in a vat of Coating, and subsequently withdrawing the object and draining off the excess Coating.

(21) "Doctor Blade" – A steel blade used to scrape excess Ink from a Printing plate or inking cylinder.

(22) "Dryer" – A hot air, high velocity system used to dry Inks on a printed or coated substrate.

(23) "Dye Sublimation" – An imaging process that vaporizes colorant with heat and pressure, and deposits it onto a substrate in order to simulate a continuous tone image. Dye Sublimation is a Digital Printing technology.

(24) "Electron Beam Ink" – Ink that, when exposed to electron energy, crosslinks or solidifies in milliseconds.

(25) "Electron Charge Deposition Printing" – See Ionography.

(26) "Electrophotography" – A Digital Printing technology that works by recording an image on a drum in the form of an electrostatic charge, which is then transferred to the substrate. Electrophotography includes such technologies as laser printers, xerography, and Liquid Electrophotography.

(27) "Electrostatic Application" – A method of applying Coating whereby atomized paint droplets are charged and subsequently deposited on the substrate by electrostatic attraction.

(28) "End-User" – A person who performs Graphic Arts Printing Operations.

(29) "Exempt Compounds" **–** A compound identified as exempt in 40 CFR 51.100(s)(1).

(30) "Fabric Coating" – Any decorative or protective Coating or reinforcing material applied on or impregnated into textile fabric, vinyl coated textile fabric, or vinyl sheets.

(31) "Facility" – Any permit unit or grouping of permit units or other air-contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control). Such above-described groupings, if non-contiguous, but connected only by land carrying a pipeline, shall not be considered one Facility.

(32) "Film Coating" – Any Coating applied in a Web Coating process on any film substrate other than paper or fabric, including, but not limited to typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap, but excluding coatings applied to packaging used exclusively for food and health care products for human or animal consumption.

(33) "Fine Arts Painting" – Any unique visual representation, consisting of paint, Ink, or other media, hand applied to a substrate of canvas, wood, paper, metal, or other material.

(34) "Flexible Packaging" – Any package or part of a package, the shape of which can readily be changed. Flexible Packaging includes, but is not limited to, bags,

pouches, liners and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

(35) "Flexographic Printing" – The application of words, designs, or pictures to a substrate by means of a roll Printing technique in which the pattern is applied to an image carrier made of rubber or other elastomeric material. The image to be printed is raised above the carrier surface, while the non-image area is not raised.

(36) "Flow Coater" – A Coating application system with no air supplied to the nozzle and where paint flows over the part and the excess Coating drains back into the collection system.

(37) "Foam Coater" – A Coating application system that coats an object by flowing foam through holes or a slit directly onto the object moving underneath it.

(38) "Foil Coating" – A Coating applied in a Web Coating process on any foil substrate other than paper or fabric, including, but not limited to typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap, but excluding Coatings applied to packaging used exclusively for food and health care products for human and animal consumption.

(39) "Fountain Solution" – The solution used in Lithographic Printing which is applied to the image plate to maintain the hydrophilic properties of the nonimage areas. It is primarily water and contains at least one of the following materials: etchants such as mineral salts; hydrophilic gums; or VOC additives to reduce the surface tension of the solution.

(40) "Fugitive Emissions" – Uncollected emissions of VOC from any portion of the Printing, Coating or Laminating Operation other than from the Dryer.

(41) "Grams of VOC per Liter of Adhesive, Coating, Ink or Wash Primer, Less Water and Less Exempt Compounds (VOC Content)" – The weight of VOC emitted during use, Coating, curing or drying per combined volume of VOC and of Adhesive, Coating Ink or Wash Primer solids and can be calculated by the following equation:

Grams of VOC per Liter of Coating (or Adhesive, Ink or Wash Primer), Less Water and Less Exempt Compounds $= \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$

Where:
W_s = weight of VOC, in grams
W_w = weight of water, in grams
W_{es} = weight of Exempt Compounds, in grams
V_m = volume of material, in liters
V_w = volume of water, in liters
V_{es} = volume of Exempt Compounds, in liters

For Coatings that contain Reactive Diluents, the Grams of VOC per Liter of Coating (or Ink or Adhesive), Less Water and Less Exempt Compounds, shall be calculated by the following equation:

Grams of VOC per Liter of Coating, (or Adhesive, Ink or Wash Primer) Less Water and Less Exempt Compounds $= \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$

Where: W_s = weight of VOC evolved during curing and analysis, in grams

W_w = weight of water evolved during curing and analysis, in grams

W_{es} = weight of Exempt Compounds evolved during curing and analysis, in grams

V_m = volume of material prior to reaction, in liters

V_w = volume of water evolved during curing and analysis, in liters

V_{es} = volume of Exempt Compounds evolved during curing and analysis, in liters

(42) "Grams of VOC per Liter of Material" – The weight of VOC per volume of material and can be calculated by the following equation:

$$Grams\ of\ VOC\ per\ Liter\ of\ Material = \frac{W_s - W_w - W_{es}}{V_m}$$

Where: W_s = weight of VOC, in grams

W_w = weight of water, in grams

W_{es} = weight of Exempt Compounds, in grams

V_m = volume of material, in liters

(43) "Graphic Arts Coating" – The application of a uniform layer of material across the entire width of a substrate. Those machines which perform both Coating and Printing should be considered as performing a Printing Operation. For purposes of this rule, Digital Printing is not considered a Graphic Arts Coating Operation.

(44) "Graphic Arts Materials" – Any Adhesives, Coatings or Inks , including added Thinners or retarders, used in Printing or related Coating or Laminating processes.

(45) "Graphic Arts Printing Operations" – Those Operations employing Conventional Printing Operations, or any Coating or Laminating process associated with Conventional Printing Operations to produce published products and packages. Solvent Cleaning Operations performed in order to produce published products and packages are considered to be part of Graphic Arts Printing Operations.

(46) "Gravure Printing" – An Intaglio Printing process in which the Ink is carried in minute etched or engraved wells on a roll or cylinder, excess Ink being removed from the surface by a Doctor Blade.

(47) "Hand Application Method" – A method of applying a Coating to a substrate using manually held, non-mechanically operated equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags and sponges.

(48) "Heatset Web Ink" – A quick-drying Ink in which the Solvents are vaporized by passing the printed surface through a device such as a Dryer or Oven.

(49) "High-Volume, Low-Pressure (HVLP) Spray Equipment" – Equipment used to apply materials by means of a spray gun which is designed and intended to be operated, and which is operated, between 0.1 and 10.0 psig of air atomizing pressure, measured dynamically at the center of the air cap and the air horns.

(50) "Ink" – A pigmented and/or dyed liquid or paste used in a Graphic Arts Printing Operation typically for Printing, impressing, or transferring an image onto a substrate.

(51) "Ink-Jet" – A Digital Printing technology in which Ink is ejected through printheads onto a substrate to create an image.

(52) "Intaglio Printing" – Printing done from a plate or cylinder in which the image is sunk below (etched or engraved into) the surface.

(53) "Ion Deposition Printing" – See Ionography.

(54) "Ionography" – A Digital Printing technology that utilizes a directed array of ions to create a charge on a nonconductive surface to create an image. Ionography can also be known as Ion Deposition or Electron Charge Deposition Printing.

(55) "Key System Operating Parameters" – Those parameters necessary to ensure compliance with subsection (C)(4), including, but not limited to, temperature, pressure drop, and air flow rate.

(56) "Lamination" – A process of composing two or more layers of material to form a single, multiple-layer sheet by using an Adhesive.

(57) "Letterpress Printing" – A Printing process in which the image area is raised relative to the nonimage area and the Ink is transferred to the substrate directly from the image surface.

(58) "Line" – The minimum equipment which is required for the application, drying, and/or curing of Inks, UV Inks, and/or Coatings on a substrate, including the Ink and/or Coating applicators and drying systems, and associated Ink and Coating agitation and delivery systems.

(59) "Liquid Electrophotography (LEP)" – A Digital Printing technology that records a latent electrostatic image on a photoconductive surface, such as a drum or belt. The image created by applying toner to the charged areas of the photoconductor is electrically transferred to an intermediate surface. In the second transfer process, the image is released from the Blanket surface to the final substrate cooling rapidly as the substrate passes between the Blanket and the impression drum, causing the image to "peel off" the Blanket and be affixed to the substrate. This Operation repeats itself on the one Printing station for every color separation in the image.

(60) "Liquid Leak" – A visible Solvent leak from a container at a rate of more than three (3) drops per minute, or a visible liquid mist.

(61) "Lithographic Printing" – A planographic Printing process in which the image and nonimage areas are on the same plane and are chemically differentiated. This Printing process differs from other Printing processes where the image is typically printed from a raised or recessed surface.

(62) "Magnetography" – A Digital Printing technology whereby an image is printed using a magnetic toner, electromagnetic write heads, and magnetic fields on an imaging drum.

(63) "Maintenance Cleaning" – A Solvent Cleaning Operation or activity carried out to keep tools, machinery, equipment (excluding Adhesive, Coating, or Ink Application Equipment) or general work areas in clean and good operational condition.

(64) "Manufacturing Process" – The process of making goods or articles by hand or by machine.

(65) "Matte Finish Ink" – A Specialty Ink which is applied on Non-Porous substrates in Flexographic Printing Operations and contains at least five (5) percent by weight silicon dioxide flattening agent.

(66) "Metallic Ink" – A Specialty Ink which is applied on Non-Porous substrates in Flexographic Printing Operations which contains at least 28 percent elemental metal powder, by weight.

(67) "Non-Absorbent Container" – A container made of Non-Porous material that does not allow the migration of Solvents through it.

(68) "Non-Atomized Solvent Flow" – Solvents in the form of a liquid stream without the introduction of any Propellant.

(69) "Non-Heatset Web Ink" – An Ink which dries by oxidation and/or absorption into the substrate without use of heat from Dryers or Ovens.

(70) "Non-Leaking Container" – A container without Liquid Leak.

(71) "Non-Porous" – Any substrate whose surface prevents penetration by water, including but not limited to foil, polyethylene, polypropylene, cellophane, metalized polyester, nylon, and polyethylene terephthalate (mylar), paper or paperboard coated with Non-Porous surface. Clay coated Printing paper as defined by the American Paper Institute Classification System, and paperboard coated with clay to prevent water penetration, shall be considered Non-Porous.

(72) "Offset Lithographic Printing" – A planographic method in which the image and non-image areas are on the same plane and where the Ink is transferred from an image plate on one cylinder to an image Blanket on a different cylinder. The Ink is finally transferred from the image Blanket to the surface to be printed.

(73) "On-Press Component" – A part, component, or accessory of a press that is cleaned while still being physically attached to the press.

(74) "Operation" – Any physical action resulting in a change in the location, form, or physical properties of a material, or any chemical action resulting in a change in the chemical composition or the chemical or physical properties of a material.

(75) "Operator" – Includes, but is not limited to, any person who owns, leases, supervises, or operates a Facility and/or equipment.

(76) "Oven" – A heating chamber which uses heat, UV radiation, or electron beam (EB) radiation to bake, cure, polymerize, or dry a surface Coating.

(77) "Overall Capture and Control Efficiency" – In percent, the ratio of the weight of the VOC removed by the emission control system from the effluent stream entering the Control Device to the total VOC emitted from Graphic Arts Printing Operations, both measured simultaneously, and can be calculated by the following equations:

$$O.C.E = \left(\frac{(Capture\ Efficiency) \times (Control\ Device\ Efficiency)}{100} \right)$$

(78) "Packaging Gravure" – Gravure Printing on paper, paperboard, foil, film or other substrates used to produce containers or packages.

(79) "Pantone Ink" – An Ink created for color matching by combination of Process Inks.

(80) "Paper Coating" – Any Coating applied on or impregnated into paper, including, but not limited to, adhesive tapes and labels, book covers, post cards, office copier paper, drafting paper, and pressure sensitive tapes.

(81) "Plastisizer" – A material used to keep plastic material soft and viscous.

(82) "Plastisol" – A Coating that is a liquid dispersion of small particles of resins and plastisizers that are fused to become a plastic.

(83) "Porous" – A substrate whose surface does not prevent penetration by water, including but not limited to, paper, paperboard, and any paper product coated with a Porous material.

(84) "Potential to Emit" – The maximum capacity of a stationary source to emit a regulated air pollutant based on its physical or operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operations or on the type of material combusted, stored, or processed, shall be treated as part of the design only if the limitation is federally enforceable.

(85) "Printing" – In the graphic arts, any operation that imparts color, design, alphabet, or numerals on a substrate.

(86) "Process Ink" – The hues yellow, magenta, and cyan, plus black used in the four-color print process.

(87) "Proof Press" – A press used only for printing a sample copy of a graphic art product to check the quality of print, color reproduction, and editorial content.

(88) "Propellant" – Any gas, including air, in a pressure container for expelling the contents when the pressure is released.

(89) "Publication Gravure" – Gravure Printing on paper subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements or other types of printed materials not classified as Packaging Gravure.

(90) "Reactive Diluent" – A liquid which is a VOC during application and one in which, through chemical reaction or physical actions, such as adsorption or retention in the substrate, 20 percent or more of the VOC becomes an integral part of a finished product.

(91) "Recycled Solvent" – Spent solvent that has been regenerated and which contains VOC levels comparable or lower than analogous un-used solvent, is stored in non-leaking containers, has documentation verifying the recycling legitimacy factors are met, and is pure enough for use in this application. The used solvent shall not have been used for cleaning or degreasing.

(92) "Removable Press Component" – A part, component, or accessory of a press that is physically attached to the press but is disassembled and removed from the press prior to being cleaned. Rollers, Blankets, metering rollers, fountains, impression cylinders and plates shall not be considered as Removable Press Components.

(93) "Repair" – The process of returning a damaged object or an object not operating properly to good condition.

(94) "Research and Development" – A Facility or portion thereof used to further the development of useful materials, devices, systems, or methods, including, but not limited to, design, development, and improvement of prototypes and processes. Research and Development does not include the Manufacturing Process itself.

(95) "Roll Coater" – A type of Application Equipment in which a series of mechanical rollers form a thin Coating film on the surface of a roller, which is subsequently applied to a substrate by moving the substrate underneath the roller.

(96) "Roller Wash" – A Solvent used to remove Ink from the rollers of a press.

(97) "Slit Coater" – See Die Coater.

(98) "Solvent" – Any liquid containing a VOC or combination of VOCs, which is used as a diluent, Thinner, dissolver, viscosity reducer, cleaning agent, or for other similar uses.

(99) "Solvent Cleaning" – The use of a Solvent to remove loosely held uncured Adhesives, uncured Coatings, uncured Inks, and contaminants from the internal surfaces and packaging passages of equipment including, but not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment and general work areas by flushing Solvent, by a Non-Atomized Solvent Flow, through the equipment.

(100) "Specialty Ink" – An Ink that is applied only on Non-Porous Substrates in Flexographic Printing Operations, and is either:

(a) A Metallic Ink that contains at least 28 percent elemental metallic powder, by weight; or

(b) A Matte Finish Ink containing at least five (5) percent silicon dioxide flattening agent, by weight.

(101) "Sterilization Indicating Inks" – Inks that change color to indicate that sterilization has occurred. Such Inks are used to monitor the sterilization of medical instruments, autoclave efficiency, and the thermal processing of foods for prevention of spoilage.

(102) "Stripping" – The use of Solvent to remove material such as Cured Adhesives, Cured Coatings, Cured Inks, cured or dried paint, cured or dried paint residue or temporary protective Coating.

(103) "Substrate Retention Factor" – A fraction, expressed in percent, of VOCs in lithographic Inks which is retained in the substrate when the Inks dry by adsorption or absorption.

(104) "Surface Preparation" – The removal of contaminants from a surface prior to the application of Adhesives, Coatings or Inks before proceeding to the next step of a Manufacturing Process.

(105) "Thermography" – A Digital Printing technology that creates an image via a chemical reaction that occurs when portions of a thermal-coated substrate are subjected to heat. Thermographic technologies include but are not limited to thermal wax transfer, multi-bit thermal wax transfer, and Dye Sublimation.

(106) "Thin Film Ultraviolet (UV) Ink" – A UV Ink for which <0.2 g will cover an area of ≥225 cm^2 (35 in^2), using the following formula:

$$C = F \times A \times D_c$$

Where:

A	=	area of substrate, in cm^2 (or in^2)
C	=	amount of Ink added to the substrate, in g
D_c	=	density of Ink, in g/cm^3 (or g/in^3)
F	=	manufacturer's recommended film thickness, in cm (or in)

(107) "Thinner" – A Solvent that is used to dilute Coatings or Inks to reduce viscosity, color strength, and/or solids, or to modify drying conditions.

(108) "Transfer Efficiency" – Ratio of the weight or volume of Coating solids adhering to an object to the total weight or volume, respectively, of coating solids used in the application process expressed as a percentage.

(109) "Ultraviolet (UV) Ink" – An Ink which dries by polymerization reaction by UV or electron beam radiation.

(110) "United States Environmental Protection Agency (USEPA)" – The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(111) "Volatile Organic Compound (VOC)" – Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions and those compounds listed in 40 CFR 51.100(s)(1).

(112) "Wash Primer" – A material used to clean and/or to activate surfaces of paper or fabric that contains no more than five (5) percent, by weight, solid materials.

(113) "Waste Solvent Material" – Any Solvent which may contain dirt, oil, metal particles, sludge, and/or waste products, or wiping material containing VOCs including, but not limited to, paper, cloth, sponge, rag, or cotton swab used in Solvent Cleaning.

(114) "Web" – A continuous sheet of substrate.

(115) "Web Splicing Adhesive" – An adhesive used to join two (2) continuous rolls of substrate material.

(116) "Wipe Cleaning" – A Solvent Cleaning activity performed by hand rubbing an absorbent material such as a rag, paper, sponge, brush or cotton swab containing Solvent.

(C) Requirements

(1) VOC Content of Graphic Arts Materials

An Operator performing a Graphic Arts Printing Operation, not subject to (C)(2) or (C)(3), shall not apply any Graphic Arts Material, including any VOC-containing materials added to the original Graphic Arts Materials supplied by the manufacturer, which contains a total VOC in excess of the limits specified in Table 1 and Table 2 in accordance with the specified date:

Table 1

VOC Content Limits for Adhesives, Coatings and Inks		
Material	Grams of VOC per Liter (lb/gal) Less Water and Less Exempt Compounds, as applied, effective through 11/30/2014	Grams of VOC per Liter (lb/gal), Less Water and Less Exempt Compounds, as applied, effective on and after 12/01/2014
Flexographic Ink on Porous Substrates	n/a	225 (1.88)
Printing Ink	300 (2.5)	300 (2.5)
Coating	300 (2.5)	300 (2.5)
Adhesive	300 (2.5)	150 (1.25)
Web Splicing Adhesive	n/a	150 (1.25)

Table 2

VOC Content Limits for Fountain Solutions		
Fountain Solution used in:	Total Grams of VOC per Liter (lb/gal) including any VOC containing materials added to the original Fountain Solution, effective through 11/30/2014	Percent VOC by volume, effective on and after 12/01/2014
Heatset Web Offset Lithographic Printing	100 (0.83)	1.6
Non-Heatset Web Offset Lithographic Printing	100 (0.83)	5.0
Sheet-fed Offset Lithographic Printing with maximum sheet size no greater than 11 x 17 inches	100 (0.83)	5.0
All other presses	100 (0.83)	8.0

(a) On and after 12/01/2014, an Operator performing Non-Heatset Web Offset Lithographic Printing shall use Fountain Solution that is five percent (5%) alcohol substitute or less, by weight, and shall have no alcohol in the Fountain Solution.

(2) Flexographic Specialty Ink

(a) An Operator using a Flexographic Printing Operation shall not use a Specialty Ink in excess of the VOC limit in Table 3, and shall not use more than two (2) gallons of Specialty Inks in a calendar day and 120 gallons of Specialty Ink in a calendar year.

Table 3

VOC Content Limits for Flexographic Specialty Ink	
Material	Grams of VOC per Liter (lb/gal), Less Water and Less Exempt Compounds, as applied, effective on and after 12/01/2014
Metallic Ink	460 (3.8)
Matte Finish Ink	535 (4.5)
Metallic Ink and Matte Finish Ink on Flexible Package Printing	383 (3.2)

(b) On and after 12/01/2014, facilities with the Potential to Emit or with actual emissions of at least ten (10) tons VOC in any calendar year shall not use Specialty Inks with VOC content greater than 300 grams VOC per liter, less water and less Exempt Compounds, as applied.

(3) Paper, Film, Foil or Fabric Coating Operations

(a) An Operator shall not use any Coating in any Paper, Film, Foil or Fabric Coating Application Process, with or without Ovens, unless:

(i) The Coating contains less than 265 Grams of VOC Per Liter (2.2 lb/gal), Less Water and Less Exempt Compounds, as applied, as applied; or

(ii) VOC emissions are collected and reduced by an approved emission control system pursuant to subsection (C)(4).

(b) An Operator shall not use or apply any Plastisol to any paper, film, foil or fabric substrate unless the Coating contains less than 20 Grams of VOC Per Liter (0.16 lb/gal), Less Water and Less Exempt Compounds, as applied.

(c) An Operator shall not use any Wash Primer on any paper, film, foil or fabric used in any Paper, Fabric, Foil or Fabric Coating Application Process, with or without Ovens, unless:

(i) The Wash Primer contains less than 265 Grams of VOC Per Liter (2.2 lb/gal) of Material used; or

(ii) VOC emissions are collected and reduced by an approved emission control system pursuant to subsection (C)(4).

(4) Approved VOC Emission Control System

(a) In lieu of the requirements of subsections (C)(1), (C)(2) or (C)(3), emissions of VOC may be controlled by an emission capture and control system, which reduces emissions of VOCs to the atmosphere, provided that:

(i) The VOC emission control system is approved by the APCO.

(ii) During continuous operation, not to exceed 24 hours, the VOC emission control system shall have a minimum Overall Capture and Control Efficiency as specified in Table 4, in accordance with the corresponding effective date.

(iii) The collection system shall vent all drying Oven exhaust to the Control Device and shall have one or more inlets for collection of Fugitive Emissions.

(iv) During any period of operation of a thermal incinerator, combustion temperature shall be continuously monitored.

(v) During any period of operation of a catalytic incinerator, exhaust Gas temperature shall be continuously monitored.

(vi) Appropriate permit(s) for the emission capture and control system are obtained pursuant to District regulations.

(vii) The VOC emission control system shall reduce VOC emissions, at all times, to a level that is not greater than the emissions which would have been achieved through the use of compliant materials, compliant equipment or compliant work practices in subsections (C)(1), (C)(2), (C)(3) and(C)(7).

Table 4

VOC Emission Control System Overall Capture and Control Efficiency		
Process or Solution	Overall VOC Capture and Control Efficiency %, by weight, effective through 11/30/2014	Overall VOC Capture and Control Efficiency %, by weight, effective on and after 12/01/2014
Flexography	67%	(See Flexible Package Printing)
Publication Gravure	75%	85%
Packaging Gravure	67%	75%
Lithography	67%	75%
Letterpress	67%	75%
Flexible Package Printing (All Technologies)	n/a	80%
Fountain Solution	67%	75%

The required minimum overall efficiency of an emission control system at which an equivalent VOC emission will be achieved, compared to the emissions achieved through compliance with subsections (C)(1), (C)(2) and/or (C)(3), shall be calculated by the following equation:

$$M.C..E. = \left[1 - \left\{ \frac{(VOC_{LWc})}{(VOC_{LWn,Max})} \times \left(\frac{1 - \left(\frac{VOC_{LWn,Max}}{D_{n,Max}} \right)}{1 - \left(\frac{(VOC_{LWc})}{880\ g/L} \right)} \right) \right\} \times 100 \right]$$

Where: MCE = Minimum Control Device Efficiency, percent.
VOC_{LWc} = VOC Limit of Rule 1130, less water and less Exempt Compounds, pursuant to paragraphs (C)(1), (C)(2) and/or (C)(3).
$VOC_{LWn,Max}$ = Maximum VOC content of non-compliant Graphic Arts Materials used in conjunction with a Control Device, less water and Exempt Compounds, in g/L.
$D_{n,Max}$ = Density of VOC Solvent, reducer, or Thinner contained in the non-compliant graphic arts materials containing the maximum VOC, in g/L.

(b) Paper, Film, Foil or Fabric

An Operator may comply with the requirements (C)(3)(a), (C)(3)(c) or (C)(4)(a) through (C)(4)(c) by using an Approved VOC Emission Control System consisting of collection and control devices, which are approved, in writing, by the APCO and operated subject to the following:

(i) The emission collection system shall collect at least 90 percent, by weight, of the emissions generated by the source of emissions.

(ii) The control device shall reduce emissions from an emission collection system by at least 95 percent, by weight, or the output of the control device is 50 ppm, by volume, calculated as carbon, with no dilution.

(c) Heatset Web Offset Lithographic or Letterpress

On or after 12/01/2014, an Operator performing Heatset Web Offset Lithographic or Letterpress Printing that has a Potential to Emit greater than 25 ton per year prior to controls shall use an add-on Control Device on the Dryers as follows:

(i) Heatset Web Offset Lithographic or Letterpress printer Control Devices installed on or prior to 11/30/2014 shall have an Overall Capture and Control Efficiency of 90 percent.
(ii) Heatset Web Offset Lithographic or Letterpress printer Control Devices installed on or after 12/01/2014 shall have an Overall Capture and Control Efficiency of 95 percent.

(5) Coating Application Equipment

No Operator shall apply Coatings unless Coatings are applied with equipment operated according to manufacturer's specifications, and only by the use of one of the following types of Coating Application Equipment:

(a) Flow Coater;

(b) Roll Coater;

(c) Dip Coater;

(d) Foam Coater;

(e) Die Coater;

(f) Hand Application Methods; or

(g) HVLP spray for air dried coatings.

(i) For HVLP spray guns manufactured prior to January 1, 1996, the End-User shall demonstrate that the gun meets HVLP spray equipment standards. Satisfactory proof will be either in the form of manufacturer's published technical material or by a demonstration using a certified air pressure tip gauge, measuring the air atomizing pressure dynamically at the center of the air cap and at the air horns.

(ii) A person shall not sell or offer for sale for use within the District any HVLP spray gun without a permanent marking denoting the maximum inlet air pressure in psig at which the gun will operate within the parameters specified in subsection (B)(49).

(h) Such other alternative spray application methods as are demonstrated in accordance with the provisions of subsection (H)(8), to be capable of achieving equivalent or better Transfer Efficiency than the application method in subsection (C)(5)(g), and for which written approval of the APCO has been obtained.

(i) Other Coating application methods which are demonstrated to the APCO to be capable of achieving at least 65 percent Transfer Efficiency as determined in accordance with Section (H)(8). Prior written approval from the APCO shall be obtained for each alternative method used.

(j) In lieu of complying with subsections (C)(5)(a) through (C)(5)(i), an Operator may control emissions from the Coating Application Equipment with a VOC emission control system that meets the requirements of subsection (C)(4).

(6) Alternative Emission Control Plan

A person may comply with the provisions of subsections (C)(1), (C)(2) or (C)(3) by means of an Alternative Emission Control Plan (AECP) pursuant to District Rule 108 – *Alternative Emission Control Plans*.

(7) Solvent Cleaning Operations and Storage and Disposal of VOC-containing Materials.

Solvent Cleaning of Application Equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-containing materials used in cleaning operations exempt from all or a portion of this rule shall comply with the provisions of Rule 1171 – *Solvent Cleaning Operations*.

(a) An Operator shall not use Solvents for Cleaning Operations that exceed the VOC content limits specified in Table 5 in accordance with the corresponding effective date.

Table 5

VOC Content Limits for Solvent Cleaning	
Type of Solvent Cleaning Operation	VOC Content Limit Grams of VOC per liter of material (lb/gal), effective on and after 12/01/2014
A. Product cleaning during Manufacturing Process; or Surface Preparation for Adhesive, Coating or Ink application	25 (0.21)
B. Repair and Maintenance Cleaning	25 (0.21)
C. Cleaning of Adhesive or Coating Application Equipment	25 (0.21)
D. Cleaning of Ink Application Equipment	25 (0.21)
1. General	25 (0.21)
2. Flexographic Printing	25 (0.21)
3. Specialty Flexographic Printing	100 (0.83)
4. Gravure Publication	
a. Publication	100 (0.83)
b. Packaging	25 (0.21)
5. Lithographic (Offset) or Letterpress Printing	
a. Roller Wash – Step 1	100 (0.83)
b. Roller Wash – Step 2; Roller wash – not specified; Blanket Wash, and On - press components	100 (0.83)
c. Removable Press Components	25 (0.21)
6. UV Ink/Electron Beam Ink Application Equipment	100 (0.83)

(b) The following Solvent Cleaning Operations may be performed outside of an APCO-approved VOC emission control system and using a Solvent with VOC content greater than 25 g/L, so long as the VOC content is not greater than the limit in Table 5:

(i) Wipe Cleaning;
(ii) Application of Solvent from hand-held spray bottles from which Solvents are dispensed without a propellant induced force;
(iii) Non-Atomized Solvent Flow method in which the cleaning Solvent is collected in a container or a collection system which is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or
(iv) Solvent Cleaning method in which the Cleaning Solvent is discharged into a container that is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharge Solvent from the equipment must be collected into containers without atomizing into the open air. The Solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

(c) Solvent shall not be atomized into the open air unless it is vented to a VOC emission control system that complies with subsection (C)(4). This provision shall not apply to printing Operations where the roller of Blanket Wash is applied automatically and the cleaning of nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with spray bottles or containers described in subsection (C)(7)(b)(ii).

(d) An Operator shall not use VOC-containing materials to clean spray equipment used for the application of Adhesives, Coatings or Ink unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls and other parts during washing, rinsing and draining procedures, and it must be used according to the manufacturer's recommendations and must be closed when not in use.

(e) In lieu of complying with the provisions of subsections (C)(7)(a) through (C)(7)(d), an Operator may control emissions from Solvent Cleaning Operations with an APCO-approved VOC emission control system that meets the requirements of subsection (C)(4).

(8) An Operator shall store or dispose of fresh or spent Solvents, Waste Solvent Materials, Coatings, Adhesives, catalysts, Thinners and Ink in Non-Absorbent, Non-Leaking Containers, which shall be kept closed except when adding or removing material, during cleaning Operations, or when the container is empty.

(9) VOC material wastes (including but not limited to liquid wastes, rags and packaging) shall be disposed of in a manner consistent with federal, state and local hazardous waste regulations.

(10) The manufacturer of any Coating, Adhesive or Ink, except Thin Film UV Ink, which is sold, offered for sale or supplied for use in Packaging Gravure, Publication Gravure or Flexographic Printing Operations in the District shall

include the following information on the product container or Material Safety Data Sheets (MSDS) supplied with the product:

(a) Material name; manufacturer identification; specific mixing instructions; density; and, VOC content, as applied.

(b) The VOC content of Inks (except Thin Film UV Ink), Coatings and Adhesives expressed as defined in subsection (B)(41).

(11) Work Practices

(a) An Operator shall properly use and properly operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or Graphic Arts Material.

(b) Solvent containers and mixing tanks must be kept closed or covered except when filling, draining, or conducting cleaning operations.

(c) Used shop towels, rags and wipes shall be kept in closed containers.

(d) Spray guns shall be cleaned in an enclosed system.

(e) Recycled Solvents shall be used for cleaning if available and practical.

(f) Cleaning materials shall be conveyed from one location to another in closed containers or pipes.

(D) Prohibition of Specification and Sale

(1) No person shall solicit from, or require any other person to use in the District any graphic arts material which, when applied as supplied or thinned or reduced according to the manufacturer's recommendation for application, does not meet the applicable VOC limits in subsection (C)(1), (C)(2), (C)(3) or subsection (I)(3)(s)(iii) for the specific application.

(2) On and after 12/01/2014, no person shall offer for sale, sell, or distribute directly to an End-User for use in the District any Graphic Arts Material which, when applied as supplied or thinned or reduced according to the manufacturer's recommendation for application, does not meet the applicable VOC limits in subsection (C)(1), (C)(2), (C)(3) or subsection (I)(3)(s)(iii) for the specific application.

(E) Recordkeeping Requirements

Unless otherwise noted or as required pursuant to District Rule 109 – *Recordkeeping for Volatile Organic Compound Emissions*, all VOC content and density values recorded pursuant to the requirements of this rule shall be for the material as applied. Graphic Arts Printing Operations subject to this rule shall maintain the following records and information:

(1) For each Ink, Coating, Adhesive, Fountain Solution, Wash Primer, and Solvent in use and in storage:

(a) A Material Safety Data Sheet (MSDS) or product data sheet giving material name, manufacturer identification, specific mixing instructions, and density; and

(b) VOC content, as applied.

(2) Compliant Materials Records

If only Inks, Coatings, and Adhesives meeting the specification found in Section (C) are used:

(a) Records on a daily basis showing the amount of Ink used. Ink use records shall be maintained using one of the following options:

(i) Group the quantity of all Inks used and identify the maximum VOC content figure and use the minimum density of 1,010 grams per liter (8.44 lb/gal);
(ii) Itemize Process Inks and Pantone Inks separately and use the specific VOC content and density value for each Process Ink, and the highest VOC content and the maximum density of 1,010 gram per liter (8.44 lb/gal) for Pantone Inks;
(iii) Report Process Inks and Pantone Inks separately and use the maximum VOC content and minimum density value for both process and Pantone Inks, or use the density of 1,010 gram per liter (8.44 lb/gal) for Pantone Inks; or
(iv) Itemize each Ink and Pantone Ink and use the specific VOC content and density value for each.

(b) Records on a daily basis showing the amount of Coating, Adhesive, Wash Primer, and Solvent (including cleaning Solvent) used. Itemize each Coating, Adhesive, Wash Primer, and Solvent and use the specific VOC content and density value for each.

(c) Record, on a daily basis, the type, amount, and percent VOC by volume of Fountain Solution used.

(3) Non-Compliant Materials Records

If Inks, Coatings, Adhesives, Fountain Solutions, Wash Primers, and Solvents (including non-compliant cleaning Solvent) which do not meet the specifications found in Section (C) are used and compliance is achieved through the use of add-on emission control equipment pursuant to subsection (C)(4):

(a) Records on a daily basis showing the type and amount of Inks, Coatings, Adhesives, Fountain Solutions, Wash Primers, and Solvents (including non-compliant cleaning Solvent) used and itemized using the specific VOC content and density value for each.

(b) Daily records of Key System Operating Parameters which will demonstrate continuous Operation and compliance of the emission Control Device during periods of emission producing activities. Key System Operating Parameters are those necessary to ensure compliance with VOC capture and control requirements pursuant to subsection (C)(4) (including but not limited to temperatures, pressures, and flow rates). Such records shall be kept in the form and manner as prescribed by the APCO.

(4) Records for Flexographic Specialty Inks

If flexographic Specialty Inks are used pursuant to subsection (C)(2), record, on a daily basis, the type and amount of each Specialty Ink used.

(5) Digital Printing Records

(a) On or after 12/01/2014, Digital Printing Operations shall keep records in accordance with subsection (E)(5)(b) for each Digital Printer that:

(i) Uses Solvent-based Inks and has a print capacity of 1,000 ft^2/hr or more; or
(ii) Uses water-based Inks, or UV Inks and has a print capacity of 10,000 ft^2/hr or more,

(b) Operators with printers Subject to subsection (E)(5)(a) shall keep the following records:

(i) A current file of Inks, Coatings, Adhesives, and Solvents in use and in storage. The file shall include a MSDS or product data sheet showing the material name, manufacturer's name, VOC content as applied, specific mixing instructions, and density.
(ii) Monthly records of the type, and amount of each Ink, Coating, and/or Adhesive used.
(iii) Monthly records of the type, and amount of Solvent used for thinning the Ink, Coating, or Adhesive, and for cleaning.

(6) If the Facility is claiming exempt status pursuant to Section (I), the Facility shall maintain adequate records on a daily or as-used basis to demonstrate the exempt status. The Operator who becomes subject to the emission limits/standards of this rule through loss of exemption in Section (I) shall not operate the subject equipment, except as required for obtaining a new or modified Permit-to-Operate, until the Operator demonstrates that the Operation is in full compliance with the requirements of this rule.

(7) Any record required or produced pursuant to this rule shall be retained on site for a minimum of five (5) years and shall be made available to the APCO, CARB, or USEPA upon request.

(8) Determination of VOC Emissions from Inks Used in a Lithographic Printing Operation

For the purposes of determining compliance with emissions limits, and determining eligibility for exemption under subsections (I)(1), (I)(3)(h) and (I)(3)(m) of this rule, the amount of VOC emitted from Heatset Web and Non-Heatset Web Inks used shall be discounted by the following Substrate Retention Factors: 20 percent for Heatset Web Inks and 95 percent for Non-Heatset Web Inks. These Substrate Retention Factors shall not be used when determining compliance of Inks with applicable VOC content limits specified in this rule, and Heatset Web and Non-Heatset Web Inks shall meet the VOC content limits specified in subsection (C)(1), Table 2.

(F) Rule 442 Applicability

Any Graphic Arts Printing Operation subject to this rule which is exempt from all or a portion of the VOC limits of this rule shall comply with the provisions of Rule 442 – *Usage of Solvents*.

(G) Emission Reduction Credits

The calculations for emission reduction credits issued pursuant to District Rule 1309 – *Emission Reduction Credits* for Matte Finish and Metallic Inks shall be based on a maximum VOC limits specified in subsection (C)(2) Table 3 (less water and less Exempt Compounds) irrespective of the VOC limits specified in subsection (I)(3)(s)(iii).

(H) Test Methods

The VOC content of materials subject to the provisions of this rule and Overall Capture and Control Efficiency of VOC emission control systems shall be determined by the following test methods specified in Sections (H)(1) through (H)(9), District Rule 109 – *Recordkeeping for Volatile Organic Compound Emissions*, or alternative test methods approved by the APCO, USEPA, and CARB.

(1) Except for UV Inks, the VOC content of Inks, Adhesives, Fountain Solutions, Solvents and Coatings shall be determined by using EPA Method 24 or 24A as applicable; or South Coast Air Quality Management District (SCAQMD) Laboratory Methods of Analysis for Enforcement Samples, February 1997, Method 304-91 – *Determination of Volatile Organic Compounds (VOC) in Various Materials,* February 1, 1996.

(2) The VOC content of UV Inks, except for Thin Film UV Inks, shall be determined by using American Society of Testing and Materials (ASTM) D5403-93 (2013) (Test Methods for Volatile Content of Radiation Curable Materials).

(3) Exempt Compound Content: Exempt compound content shall be determined by using ARB Method 432, "Determination of Dichloromethane and 1,1,1-Trichlorethane in Paints and Coatings," September 12, 1989; ARB Method 422

"Determination of Volatile Organic Compounds in Emission from Stationary Sources," September 12, 1990; or, SCAQMD Method 303-91 "Determination of Exempt Compounds," August 1, 1996.

(4) Exempt Perfluorocarbon Compounds

The following classes of compounds: 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 sulfur bonds only to carbon and fluorine, will be analyzed as Exempt Compounds for compliance with Section (C) and subsection (I)(3)(s)(iii), only at such time as manufacturers specify which individual compounds are used in the Coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA and the District, that can be used to quantify the amounts of each Exempt Compound.

(5) The content of silicon dioxide as a flattening agent in a Matte Finish Ink shall be determined by using ASTM D717-86 (2008) (Standard Test Methods for Analysis of Magnesium Silicate Pigment).

(6) The metal content of Metallic Inks shall be determined by SCAQMD Test Method 318-95 -- Determination of Weight Percent Elemental Metal In Coatings by X-Ray Diffraction, July 1, 1996.

(7) Determination of emissions of VOC from spray gun cleaning systems shall be made using SCAQMD method "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems", October 3, 1989.

(8) The Transfer Efficiency of alternative Coating Application Equipment shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," May 24, 1989.

(9) Determination of Overall Capture and Control Efficiency of VOC Emission Control Systems.

(a) The Capture Efficiency of a VOC emission control system's collection device(s) shall be determined according to EPA's "Guidelines for Determining Capture Efficiency," January 9, 1995 and 40 CFR 51, Appendix M, Test Methods 204-204F, as applicable. Individual Capture Efficiency test runs subject to the USEPA technical guidelines shall be determined by:

(i) SCAQMD "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency, May 1995"; or
(ii) Any other method approved by the USEPA, CARB, and the APCO.

(b) The Control Device Efficiency of a VOC emission control system's VOC Control Device(s) as and the VOC content in the Control Device exhaust

gases, measured and calculated as carbon, shall be determined by USEPA Test Methods 2, 2A, or 2D for measuring flow rates and EPA Method 25, 25A, 25B or SCAQMD Method 25.1 – "Determination of Total Gaseous Non-Methane Organic Emissions as Carbon, February 26, 1991" as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of Exempt Compounds.

(c) For VOC emission control systems that consist of a single VOC emission collection device connected to a single VOC emission Control Device, the Overall Capture and Control Efficiency shall be calculated by using the following equation:

$$CE_{Capture,Control} = \left[CE_{Capture} \times CE_{Control}\right] / 100$$

Where:

$CE_{Capture,Control}$	=	Overall Capture and Control Efficiency, in percent
$CE_{Capture}$	=	Capture Efficiency of the collection device, in percent, as determined in subsection (H)(9)(a)
$CE_{Control}$	=	Control Efficiency of the Control Device, in percent, as determined in subsection (H)(9)(b).

(d) The following equation shall be used to determine if the minimum required Overall Capture and Control Efficiency of an emission control system is at an equivalent or greater level of VOC reduction as would be achieved using compliant materials, equipment, or work practices, as stated in subsection (C)(4)(a).

$$CE = \left[1 - \left(\frac{VOC_{LWc}}{VOC_{LWn,Max}} \times \frac{1 - \left(VOC_{LWn,Max} / D_{n,Max}\right)}{1 - \left(VOC_{LWC} / D_{c}\right)}\right)\right] \times 100$$

Where:

CE	=	Minimum Required Overall Capture and Control Efficiency, percent
VOC_{LWc}	=	VOC Limit, less water and less Exempt Compounds
$VOC_{LWn,Max}$	=	Maximum VOC content of noncompliant Ink (or Coating or Adhesive) used in conjunction with a Control Device, less water and less Exempt Compounds
$D_{n,Max}$	=	Density of Solvent, reducer, or Thinner contained in the noncompliant Ink (or Coating or Adhesive), containing the maximum VOC content of the multi-component Ink (or Coating, or Adhesive) printing Line
D_c	=	Density of corresponding Solvent, reducer, or Thinner used in the compliant Ink (or Coating, or Adhesive) system = 880 gm/liter

(10) Equivalent Test Methods

Other test methods determined by the staffs of the District, ARB, and USEPA, to be equivalent to the test methods specified in this rule, and approved in writing by the APCO may also be used.

(11) Multiple Test Methods

When more than one test method or set of test methods are 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 the rule.

(12) Test Methods Dates

All test methods referenced in this section shall be the most recent approved versions. The APCO may update test methods as necessary to reflect the most accurate method available, provided the method does not affect the stringency of the rule.

(I) Exemptions

(1) The requirements of this rule, except for the recordkeeping requirements of subsection (E)(6), shall not apply to the following Operations except for Paper, Film, Foil or Fabric Coating Operations:

(a) Effective through 11/30/2014, any Graphic Arts Printing Operation which emits less than 400 pounds of VOC per calendar month.

(b) On or after 12/01/2014, any Graphic Arts Printing Operation that emits less than 200 pounds of VOC per 12 rolling consecutive calendar months.

(2) The following exemptions apply to Paper, Film, Foil or Fabric Coating Operations only:

(a) The provisions of subsection (C)(5) shall not apply to the application of materials that contain less than 20 g/L of VOC per liter of material.

(b) The provisions of subsection (C)(3) shall not apply to laboratories which apply less than two (2) gallons per day of coatings to test specimens for purposes of testing for production-related operations, Research and Development, or quality control.

(c) The provisions of subsection (C)(3) shall not apply to laboratories located at facilities that manufacture reinforced plastic, structural materials which apply less than three (3) gallons per day of coatings to test specimens for either testing for production-related operations, Research and Development, or quality control.

(3) The requirements of this rule shall not apply to:

(a) All Proof presses.

(b) Any Facility which emits eight (8) pounds or less of VOC per day from Graphic Arts Printing Operations and related Solvent Cleaning Operations subject to Rule 1171 - *Solvent Cleaning Operations*.

(c) Coating operations subject to other rules of Regulation XI – *Source Specific Standards*.

(d) Solar-control window film.

(e) Heat-applied transfer decals.

(f) Graphic arts on ceramic materials.

(g) Circuitry printing.

(h) Blanket Repair Material used in containers of four (4) ounces or less.

(i) Sterilization Indicating Inks.

(j) The application of Coatings and use of cleaning Solvents in creating Fine Art Paintings, or to scenic or theatrical backgrounds for motion pictures, television and theater.

(k) Stripping of Cured Adhesives, Cured Coatings, and Cured Inks, except the Stripping of such materials from spray Application Equipment.

(l) Cleaning Operations in printing pre-press or graphic arts pre-press areas, including the cleaning of film processors, color scanners, plate processors, films, and plates.

(m) Digital Printers and Digital Printing Operations except for recordkeeping requirements in Section (E)(5).

(n) This rule shall not apply to laboratory tests or analyses, Bench Scale, or Research and Development Projects.

(o) This rule shall not limit the VOC content of Thin Film UV Inks.

(p) Cleaning materials with a VOC composite vapor pressure less than 8 mm Hg at 20º C are exempt from subsection (C)(7)(a) of this rule.

(q) The prohibition specified in subsections (D)(1) or (D)(2) shall not apply to persons offering Graphic Arts Materials for sale to, selling Graphic Arts Materials to, distributing Graphic Arts Materials to, or requiring the use of Graphic Arts Materials from, persons who are operating an approved emission control system under subsection (C)(4), or complying under subsection (C)(6).

(r) The prohibition specified in Section (D) shall not apply to Graphic Arts Materials which will be used solely outside of the District.

(s) The provisions of subsection (C)(2) shall not apply to Matte Finish and Metallic Inks provided that:

(i) The usage of Matte Finish or Metallic Inks each shall not exceed two (2) gallons per day and 120 gallons per calendar year at a Facility; and

(ii) The Potential to Emit and the actual VOC emissions from a Facility which applies Matte Finish or Metallic Inks does not exceed ten (10) tons per calendar year from all VOC emission sources, but 300 grams per liter after 12/01/2014; and

(iii) The VOC content of Matte Finish and Metallic Inks on non-flexible substrates do not exceed 535 and 460 grams per liter (less water and less Exempt Compounds) respectively; and

(iv) The owner or Operator of the Facility certifies in writing to the Executive Officer that they shall not emit VOCs in excess of ten (10) tons per calendar year. Such a certification shall be considered an agreement by the Facility to limit the Facility's Potential to Emit; and

(v) Facilities operating under the provisions of subsection (I)(3) whose actual emissions exceed ten (10) tons in any calendar year shall henceforth be subject to the requirements of subsection (C)2; and

(vi) In addition to the requirements of Section (E), Facilities shall retain records of purchase orders and invoices of VOC-containing materials for a minimum of five (5) years.

(t) The provisions of this rule shall not apply to Aerosol Coating Products.

See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921

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(**Adopted**: 08/04/89; **Amended**: 12/07/95; **Amended**: 04/11/97; **Amended**: 01/19/10)

RULE 1134
Stationary Gas Turbines

(A) General

(1) Purpose

(a) The purpose of this rule is to limit the emission of oxides of nitrogen (NO_x) and carbon monoxide (CO) from Stationary Gas Turbines.

(2) Applicability

(a) This rule applies to any new or existing Stationary Gas Turbine of 0.3 megawatt (MW) and larger unless the equipment is exempt from this rule pursuant to Section (D) of this rule.

(B) Definitions

(1) "Air Pollution Control Officer (APCO)" – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

(2) "Chemical Processing Gas Turbine Unit" – A gas turbine unit that vents its exhaust gases into the operating stream of a chemical process.

(3) "Continuous Emissions Monitoring System (CEMS)" – All of the equipment that may be required to meet the data acquisition and availability requirements of this rule, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.

(4) "Digester Gas" – Fuel containing a minimum of 60 percent process gas, derived from a digester, by volume on a daily average.

(5) "Dry Low NO_x Combustion Technology (DLN)" – Any turbine combustor design which uses multiple staging, air/fuel premixing or other modifications to achieve lower levels of NO_x emissions as compared to conventional combustors.

(6) "Emergency Standby Unit" – Any Stationary Gas Turbine that operates as a mechanical or electrical power source for a facility only when the primary power source has been rendered inoperable due to failure beyond the reasonable control of the operator. A power interruption pursuant to a voluntary interruptible power supply agreement is not to be considered as an emergency loss of primary power. Electricity generated by such a unit cannot be sold.

(7) "Emission Control Equipment" – Add-on technologies which control the turbine's emissions, including, but not limited to, Selective Catalytic Control (SCR), water injection, steam injection, but excluding DLN.

(8) "Emission Control Plan (ECP)" – A plan that shall contain at a minimum District permit or identification number; name of gas turbine manufacturer; model designation; rated brake horsepower; heat rate (BTU/KW-HR), corrected to the HHV for each type of fueling (liquid/gas); type of liquid fuel and/or type of gaseous fuel; hours of operation in the previous one-year period; fuel consumption (cubic feet of gas or gallons of liquid) for the previous one-year period; and a list of all gas turbine units required to be controlled identifying the type of emission control to be applied to such gas turbine units along with documentation showing existing emissions of NO_x and CO.

(9) "Emission Control System Operating Parameters" – Any operating parameter(s) that the District deems necessary to analyze for the determination of compliance. Such parameters include, but are not limited to, the ammonia and gas flow rates, the exhaust temperature for the Selective Catalytic Reduction (SCR), humidity, water injection rate, exhaust gas flow rate and the temperature for water injection.

(10) "Enhanced Emissions Monitoring Device" – Any automated data recording device or system having both data gathering and retrieval capabilities. Such equipment includes, but is not limited to, Continuous Emissions Monitoring Systems (CEMS) and Predictive Emissions Monitoring Systems (PEMS).

(11) "Existing Gas Turbine Unit" – A stationary gas turbine unit that met the following criteria prior to 12/15/09:

(a) Had been issued a valid permit to construct or operate by the District; or

(b) Was in operation pursuant to the provisions of District Rule 219 (D)(2)(a).

(12) "Higher Heating Value (HHV)" – The Higher Heating Value of the fuel.

(13) "Landfill Gas" – Gas derived from a landfill gas extraction system.

(14) "Lower Heating Value (LHV)" – The Lower Heating Value of the fuel.

(15) "Measured NO_x Emissions Concentration" – The concentration of oxides of nitrogen corrected to International Standards Organization (ISO) standard conditions:

$$NO_x = (NO_x \text{ obs})(\text{Pref}/\text{Pobs})^{0.5} (288 \text{ K}/\text{Tamb})^{1.53} \ (e^{19(\text{Hobs}-0.00633)})$$

Where: NO_x = emissions of NO_x at 15 percent oxygen and ISO standard conditions on a dry basis, ppm.
NO_x obs = measured NO_x emissions corrected to 15 percent oxygen on a dry basis, ppm.
Pref = standard reference pressure, (14.696 psia).
Pobs = measured site ambient absolute pressure, psia.
Hobs = measured humidity of ambient air, pounds water per pound dry air.
e = transcendental constant (2.718)
Tamb = measured temperature of ambient air, degrees Kelvin.

or an alternate calculation that corrects to ISO standard conditions and is approved by the APCO.

(16) "Power Augmentation" – An increase in the gas turbine shaft output and/or the decrease in gas turbine fuel consumption by the addition of energy recovered from exhaust heat.

(17) "Predictive Emissions Monitoring System (PEMS)" – All of the equipment necessary to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, oxygen or carbon dioxide concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.

(18) "Public Service Unit" – A Stationary Gas Turbine used to generate electricity for sale or for use in serving the public.

(19) "Rating" – The continuous MW (megawatt) rating or mechanical equivalent by a manufacturer for gas turbine unit(s) without Power Augmentation.

(20) "Reasonably Available Control Technology (RACT)" – The lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

(21) "Selective Catalytic Reduction (SCR)" – A noncombustion control technology that destroys NO_x by injecting a reducing agent (e.g., ammonia) into the flue gas that, in the presence of a catalyst (e.g., vanadium, titanium, or zeolite), converts NO_x into molecular nitrogen and water.

(22) "Shutdown Period" – The period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off.

(23) "Startup Period" – The period of time during which a unit is brought from a Shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation.

(24) "Stationary Gas Turbine" or "Unit" – Any gas turbine unit that is gas and/or liquid fueled with or without power augmentation. This unit is either attached to a foundation at a facility or is portable equipment operated at a specific facility for more than 90 days in any twelve-month period. Two or more units powering one shaft shall be treated as one unit.

(25) "Thermal Stabilization Period" – The Startup or Shutdown Period necessary to bring the heat recovery steam generator to the proper operating temperature, not to exceed two hours.

(C) Standards

(1) The owner or operator of any affected Stationary Gas Turbine Unit shall not operate such Unit under load conditions, excluding the Thermal Stabilization Period and Startup and Shutdown Periods, which result in the Measured NO_x Emissions Concentration exceeding the emissions limits set forth below.

(a) For Stationary Gas Turbines the federal NO_x and CO RACT limits in Table 1 apply:

Table 1
NO_x and CO Compliance Limits

Control	Operating hours per year	Rating	NO_x Compliance Limit, ppmv at 15% oxygen		CO Compliance Limit, ppmv at 15% oxygen
			Gas Fuel	Liquid Fuel	
SCR + DLN	> 877	> 10 MW	5	25	200
DLN	> 877	2 – 10 MW	25	65	200
SCR (no DLN available)	> 877	2 – 10 MW	35	65	200
DLN	> 877	< 2 MW	42	50	250
SCR or DLN	< 877	> 10 MW	25	42	200
Any (fired on Digester Gas and/or Landfill Gas)	any	0.3 – 10 MW	25	N/A	200

(b) For the purposes of these emissions limits the following conventions are applicable:

(i) Gas includes natural gas, Digester Gas and Landfill Gas.
(ii) Oil includes kerosene, jet fuel, and distillate. The sulfur content of the oil shall be less than 0.05 percent.
(iii) NO_x = emissions of NO_x, in ppmv, corrected to 15 percent oxygen and ISO standard conditions on a dry basis, averaged over any consecutive 15 minute period.

(2) The owner or operator of any Stationary Gas Turbine subject to (C)(1)(a) shall submit to the APCO for approval, an Emission Control Plan (ECP) for the purpose of establishing compliance with provisions of this rule.

(3) The owner or operator of any Stationary Gas Turbine subject to (C)(1) shall minimize emissions insofar as technologically feasible during Thermal Stabilization Periods.

(D) Exemptions

(1) The provisions of Section (C) of this rule shall not apply to the operation of:

(a) Laboratory gas turbine units used in research and testing for the advancement of gas turbine technology.

(b) Units operated exclusively for fire fighting and/or flood control.

(c) Chemical Processing Gas Turbine Units.

(2) The provisions of this rule, with the exception of Section (F)(2), shall not apply to the operation of Stationary Gas Turbines used under the following conditions:

(a) Emergency Standby Units, and Stationary Gas Turbine Units demonstrated to operate less than 200 hours per calendar year, which have installed and maintained in proper operation a non-resettable engine hour meter.

(b) Portable, turntable, or track mounted turbines whose operation generates intermittent, high velocity air flow for live fire sustainability, lethality, aerodynamic, cookoff, or remote control operation testing only.

(c) Intra facility portable flight-line equipment used to support aircraft systems or start up aircraft power plants.

(E) Administrative Requirements

(1) The ECP required pursuant to section (C)(2) shall, at a minimum, include the following information if such information is applicable:

(a) A list of all Stationary Gas Turbines required to be controlled pursuant to this rule.

(b) For each Stationary Gas Turbine listed:

(i) District identification number, and District permit to operate number;
(ii) Name of the gas turbine manufacturer;
(iii) Equipment model number;
(iv) Manufacturer's rated shaft power output (MW);
(v) Type of liquid fuel and/or type of gaseous fuel;
(vi) HHV for each fuel;
(vii) Heat rate ((Btu/kW-hr), corrected to the HHV) for each type of fuel (gas or liquid) for each turbine;
(viii) Monthly fuel consumption for the previous twelve-month period (cubic feet for gas; gallons for liquid);
(ix) Monthly hours of operation in the previous twelve-month period;
(x) The type of NO_x Emission Control Equipment, including any auxiliary equipment related to the control of emissions, to be applied;
(xi) Documentation showing the current (existing) concentration and mass rate of emissions of NO_x from the unit;
(xii) A schedule with specified increments of progress dates for construction of Emission Control Equipment, operational milestones for implementation of emissions control and/or installation of monitoring equipment; and
(xiii) A final compliance date.

(F) Monitoring and Recordkeeping Requirements

(1) The owner or operator of any Stationary Gas Turbine required to install Emission Control Equipment for compliance with this rule shall:

(a) Install, operate, and maintain in calibration, the following monitoring equipment, as approved by the APCO:

(i) Continuous measurement and recording of Emissions Control System Operating Parameters;
(ii) Continuous measurement and recording of elapsed time of operation; and
(iii) An Enhanced Emissions Monitoring Device.

(b) Notify the APCO, in writing, before issuance of the permit to operate, such information which correlates the Emission Control System Operating Parameters, and PEMS if present, to the associated measured NO_x emissions output. This information will be used to determine compliance with applicable provisions of this rule for non-CEMS-equipped turbines and CEMS-equipped units when the CEMS is not operating properly.

(c) Provide, on an annual basis, compliance testing data and information regarding NO_x emissions. The data shall be corrected to ISO conditions and at 15 percent oxygen on a dry basis; and the percent efficiency (EFF) of each turbine unit.

(2) The owner/operator of any Stationary Gas Turbine shall:

(a) On a daily basis, maintain a turbine operating log that includes, as a minimum, the following information:

(i) The total hours of operation per day;
(ii) The accumulated hours of operation per calendar month;
(iii) The type and quantity of fuel used; and
(iv) The nature of operation of the unit (exempt or non-exempt).

(b) The operating log required to be kept pursuant to this rule shall be kept current and on site for a minimum of two years; and provided to District or state personnel on request.

(G) Notification Requirements for Exempt and Emergency Standby Units

(1) Any Stationary Gas Turbine unit which is exempt or claimed to be exempt pursuant to subsection (D)(2) shall:

(a) Notify the APCO within seven (7) days if the hour-per-year threshold is exceeded.

(i) If the hour-per-year threshold is exceeded, the exemption pursuant to subsection (D)(2) shall be permanently withdrawn.
(ii) If the hour-per-year threshold is exceeded the owner/operator shall, within 30 days of the notification, submit an application for a permit to operate to the District. Such application shall including a plan detailing actions and a schedule of progress to meet the applicable RACT limits and provisions of this rule within 18 months after the date of the notification; an ECP conforming to the requirements of Section (E) for the Emission Control Equipment.

(2) Notwithstanding the provisions of Sections (F)(2) and (G)(1) above, a Public Service Unit shall not be subject to the hour-per-year threshold when:

(a) Such Unit is operating during a state of emergency declared by a proclamation of the Governor of the State of California; and

(b) Such Unit is located within the specific geographic location identified in the state of emergency proclamation.

(H) Test Methods

(1) Compliance testing shall be subject to the protocols prescribed in the District's Compliance Procedural Manual.

(2) The following test methods shall be used to determine compliance with the provisions of this rule.

(a) NO_x emissions shall be determined by EPA Test Method 20.

(b) The Higher Heating Value (HHV) and the Lower Heating Value (LHV) shall be determined by the appropriate method for the fuel type listed below:

(i) For liquid fuels:
- a. ASTM Test Method D 240-87 (Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter).

(ii) For distillate fuel:
- a. ASTM Test Method D 2382-88 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter - High Precision Method); or**,**

(iii) For gaseous fuels:
- a. ASTM Test Method D 3588-91 (Standard Practice for Calculation Heat Value, Compressibility Factor, and Relative Density (Specific Gravity) of Gaseous Fuels); or
- b. ASTM Test Method D 1826-88 (Standard test Method for Caloric (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter); or
- c. ASTM Test Method D 1945-81 (Standard Method for Analysis of Natural Gas by Gas Chromatography).

(I) Compliance Schedule

(1) The owner/operator of any Existing Stationary Gas Turbine subject to the provisions of Section (C)(1)(a) above shall comply with the following increments of progress:

(a) An ECP shall be submitted to the District within 90 days of rule adoption. The District shall approve the ECP within 30 days of submission.

(b) Any affected turbine shall be in full compliance with all applicable provisions of the rule within twelve months of rule adoption.

(c) Demonstrate final compliance with all applicable standards and requirements of the rule within six months of the installation of the NO_x reduction technology.

(2) The owner/operator of any new Stationary Gas Turbine subject to the provisions of Section (C) shall comply as of the date of adoption of this rule.

[SIP: Submitted as amended 01/19/10 on mm/dd/yy; Submitted as amended 4/11/97 on 8/1/97; Approved _____, _____, 40 CFR 52.220(c)(230)(i)(B)(1)]

10/13/95

(Adopted September 16, 1983) (Amended August 5, 1988)(Amended May 5, 1989)
(Amended March 2, 1990)(Amended June 28, 1990)(Amended November 2, 1990)
(Amended December 7, 1990)(Amended August 2, 1991)(Amended April 8, 1994)
(Amended August 12, 1994)(Amended September 8, 1995)

RULE 1136. WOOD PRODUCTS COATINGS

(a) Purpose and Applicability

The purpose of Rule 1136 is to reduce volatile organic compounds (VOC) emissions from the application of coatings or strippers to, and surface preparation of, any wood products, including furniture, cabinets, shutters, frames and toys. This rule shall not apply to residential noncommercial operations.

(b) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) AEROSOL COATING PRODUCT means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application.

(2) ARCHITECTURAL MILLWORK GOODS are custom designed, made-to-order, finished woodwork, including doors, jambs, panelling, casework, trim, work stations, and window treatments, required by the customer to be coated to a premium finish as defined by Architectural Woodwork Quality Standards, 6th edition, Version 1.1, 1994 of the Architectural Woodwork Institute.

(3) BINDERS are non-volatile polymeric organic materials (resins) which form the surface film in coating applications.

(4) CLASSIC GUITARS are replicas of guitars that were originally manufactured before 1965 and are manufactured by the same original processes.

(5) CLEAR TOPCOAT is a final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film.

(6) COATING is a material which is applied to a surface and which forms a film in order to beautify and/or protect such surface.

(7) CUSTOM REPLICA FURNITURE is new, made-to-order furniture that looks like antique furniture, rather than new furniture. It features detailed wood carvings and bruising of the wood to simulate antique furniture.

(8) DIP COAT is to dip an object into a vat of coating material and drain off any excess coating.

(9) ELECTROSTATIC APPLICATION is charging of atomized paint droplets for deposition by electrostatic attraction.

(10) EXEMPT COMPOUNDS - See Rule 102.

(11) EXTREME PERFORMANCE COATING is a two-component high-solids epoxy, urethane or polyester coating which requires the mixing of a resin and a catalyst, and is applied to a wood product to achieve a high gloss and/or high film build coat which cannot be achieved with a low-VOC coating, or to protect the wood product from one or more of the following environmental conditions:

(a) Repeated scrubbing with industrial grade detergents, cleaners, or abrasive scouring agents; or

(b) Frequent exposure to water, to outdoor weather, or to ultraviolet radiation.

(12) FIBERBOARD AND PARTICLEBOARD COATINGS are the first coating that is applied directly to the surface of a wood product composed of tightly compressed wood fibers bonded with resins, and having a density greater than 45 pounds per cubic foot.

(13) FILLER is a material which is applied to a wood product, and whose primary function is to build up, or fill the voids and imperfections in the wood product to be coated. This shall include edge filler which is applied to the edge of a wood product, and whose primary function is to build up, or fill the voids and imperfections on the edge of the wood product.

(14) FLOW COAT is to coat an object by flowing a stream of coating over an object and draining off any excess coating.

(15) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters

For coatings that contain reactive diluents, the VOC content of the coating is determined after curing. The grams of VOC per liter of coating shall be calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:
- W_s = weight of volatile compounds not consumed during curing in grams
- W_w = weight of water not consumed during curing in grams
- W_{es} = weight of exempt compounds not consumed during curing in grams
- V_m = volume of the material prior to reaction in liters
- V_w = volume of water not consumed during curing in liters
- V_{es} = volume of exempt compounds not consumed during curing in liters

(16) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

Where:
- W_s = weight of volatile compounds in grams
- W_w = weight of water in grams
- W_{es} = weight of exempt compounds in grams
- V_m = volume of material in liters

(17) HIGH FILM BUILD is when the dry-film thickness per application is greater than four thousandths of an inch.

(18) HIGH GLOSS is when a coating surface shows a reflectance of 75 or more on a 60 degree meter.

(19) HIGH-SOLIDS STAINS are stains containing more than 1 pound of solids per gallon of material, and include wiping stains, glazes, and opaque stains.

(20) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is an equipment used to apply coating by means of a spray gun which is designed to be operated and which is operated between 0.1 and 10.0 pounds per square inch gauge (psig) air pressure, measured dynamically at the center of the air cap and at the air horns.

(21) INK is a fluid that contains dyes and/or colorants and is used to make markings, but not to protect surfaces.

(22) LOW-SOLIDS STAINS are stains containing 1 pound, or less, of solids per gallon of material.

(23) MOLD-SEAL COATING is the initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

(24) MULTI-COLORED COATING is a coating which exhibits more than one color when applied, and which is packaged in a single container and applied in a single coat.

(25) PIGMENTED COATINGS are opaque coatings which contain binders and colored pigments formulated to hide the wood surface, either as an undercoat or topcoat.

(26) REACTIVE DILUENT is a liquid which is a VOC during application and one in which, through chemical or physical reactions, such as polymerization, becomes an integral part of a finished coating.

(27) RATE PER DAY is the amount applied between 12:00 a.m. and 11:59 p.m. on the same calendar day.

(28) RATE PER CALENDAR YEAR is the amount applied between 12:00 a.m. January 1 and 11:59 p.m. December 31.

(29) REFINISH is the recoating of wood products that have been previously coated.

(30) REPAIR COATING is a coating used to recoat portions of a wood product which has sustained mechanical damage to the coating following normal painting operations.

(31) ROLL COATER is a series of mechanical rollers that forms a thin coating film on the surface of the last roller, which applies the coating to a substrate by moving the substrate underneath the roller.

(32) SEALER is a coating containing binders which seals the wood product prior to application of the subsequent coatings.

(33) SIMULATED WOOD MATERIALS are materials, such as plastic, glass, metal, paper etc., that are made to give a wood-like appearance or are processed like a wood product.

(34) STENCIL COATING is an ink or a pigmented coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to wood products.

(35) STRIPPER is a liquid used to remove cured coatings, cured inks and/or cured adhesives.

(36) TONER is a wash coat which contains binders and dyes or pigments to add tint to a coated surface.

(37) TOUCH-UP COATING is a coating used to cover minor coating imperfections appearing after the main coating operation.

(38) TRANSFER EFFICIENCY is the ratio of the weight of coating solids deposited on an object to the total weight of coating solids used in a coating application step, expressed as a percentage.

(39) UNFINISHED means that stains, sealers, clear topcoat, multi-colored coatings, pigmented coatings, toners or washcoats have not been applied to the substrate.

(40) VOC COMPOSITE PARTIAL PRESSURE is the sum of the partial pressures of the compounds defined as VOCs.

VOC Composite Partial Pressure is calculated as follows:

$$PP_c = \sum_{i=1}^{n} \frac{(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

Where:

W_i = Weight of the "i"th VOC compound, in grams (g)
W_w = Weight of water, in grams (g)
W_e = Weight of exempt compound, in grams (g)
MW_i = Molecular weight of the "i"th VOC compound, in g/g-mole
MW_w = Molecular weight of water, in g/g-mole
MW_e = Molecular weight of exempt compound, in g/g-mole
PP_c = VOC composite partial pressure at 20°C, in mm Hg
VP_i = Vapor pressure of the "i"th VOC compound at 20°C, in mm Hg

(41) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

(42) WASH COAT is a coating that contains no more than 1.0 pound of solids per gallon of material, which is used to seal wood product surfaces, prevent undesired staining, and control penetration. A wash coat may also be used to provide a barrier coat when paper laminates are applied to the wood product , or when glazes are applied during the coating operations.

(43) WOOD PRODUCTS are those surface-coated room furnishings which include cabinets (kitchen, bath, and vanity), tables, chairs, beds, sofas, shutters, art objects, and any other coated objects made of wood, wood composites, simulated wood material used in combination with wood or wood composites; and/or paper laminated on wood composites .

(44) WOOD PRODUCT COATING APPLICATION OPERATIONS are a combination of coating application steps which may include use of spray guns, flash-off areas, spray booths, ovens, conveyors, and/or other equipment operated for the purpose of applying coating materials.

(c) Requirements

(1) VOC Content of Coatings and Strippers

(A) A person or facility shall not apply any coating to a wood product which has a VOC content, including any VOC-containing material added to the original coating supplied by the manufacturer, which exceeds the applicable limit specified below:

VOC LIMITS

Grams Per Liter of Coating,
Less Water and Less Exempt Compounds

COATING	(g/L)	(lb/gal)	On and After 7/1/96 (g/L)	On and After 7/1/96 (lb/gal)
Clear Topcoats				
with Group II Exempt Compounds	550	(4.6)	275	(2.3)
without Group II Exempt Compounds	680	(5.7)	275	(2.3)
Extreme Performance Coatings	420	(3.5)	275	(2.3)
Fillers	500	(4.2)	275	(2.3)
High-Solid Stains	700	(5.8)	240	(2.0)
Inks	500	(4.2)	500	(4.2)
Fiberboard and Particleboard Coating	680	(5.7)	275	(2.3)
Mold-Seal Coatings	750	(6.3)	750	(6.3)
Multi-Colored Coatings	685	(5.7)	275	(2.3)
Pigmented Coatings	600	(5.0)	275	(2.3)

VOC LIMITS

Grams Per Liter of Coating, Less Water and Less Exempt Compounds

COATING	(g/L)	(lb/gal)	On and After 7/1/96 (g/L)	On and After 7/1/96 (lb/gal)
Sealers				
with Group II Exempt Compounds	550	(4.6)	240	(2.0)
without Group II Exempt Compounds	680	(5.7)	240	(2.0)

VOC LIMITS

Grams Per Liter of Material

COATING	(g/L)	(lb/gal)	On and After 7/1/96 (g/L)	On and After 7/1/96 (lb/gal)
Low-Solids Stains, Toners, or Washcoats				
with Group II Exempt Compounds	480	(4.0)	120	(1.0)
without Group II Exempt Compounds	800	(6.7)	120	(1.0)

(B) A person shall not use a stripper on wood products unless:

(i) it contains less than 350 grams of VOC per liter of material; or

(ii) the composite vapor pressure of the VOC is 2 mm Hg (0.04 psia) or less at 20°C (68°F).

(C) Owners and/or operators may comply with provisions of paragraph (c)(1) by using an approved air pollution control system, consisting of collection and control devices, which reduces VOC emissions from the application of wood product coatings or strippers by an equivalent or greater amount than the limits specified in subparagraphs (c)(1)(A) and (B), with the written approval of the Executive Officer. The minimum required control efficiency of an emission control system at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by the following equation:

$$C.E. = \left[1 - \left\{ \frac{(VOC_{LWc})}{(VOC_{LWn,Max})} \times \frac{1 - (VOC_{LWn,Max}/D_{n,Max})}{1 - (VOC_{LWc}/D_c)} \right\} \right] \times 100$$

Where: $C.E.$ = Control Efficiency, percent

VOC_{LWc} = VOC Limit of Rule 1136, less water and less exempt compounds, pursuant to subparagraph (c)(1)(A).

$VOC_{LWn,Max}$ = Maximum VOC content of non-compliant coating used in conjunction with a control device, less water and less exempt compounds.

$D_{n,Max}$ = Density of solvent, reducer, or thinner contained in the non-compliant coating, containing the maximum VOC content of the multicomponent coating.

D_c = Density of corresponding solvent, reducer, or thinner used in the compliant coating system = 880 g/L.

(D) Owners and/or operators may comply with the provisions of paragraph (c)(1) by using the emissions averaging provisions of subdivision (j).

(2) Transfer Efficiency

A person or facility shall not apply coatings to wood products subject to the provisions of this rule unless the coating is applied with properly operating equipment, according to the equipment manufacturer's operating procedures, and by the use of one of the following methods:

(A) electrostatic application; or

(B) flow coat; or

(C) dip coat; or

(D) high-volume, low-pressure (HVLP) spray; or

(E) paint brush; or

(F) hand roller; or

(G) roll coater; or

(H) such other coating application methods as are demonstrated to the Executive Officer to be capable of achieving at least 65 percent transfer efficiency, and for which written approval of the Executive Officer has been obtained.

(3) Solvent Cleaning Operations; Storage and Disposal of VOC-containing Materials

Solvent cleaning operations and the storage and disposal of VOC containing materials are subject to the provisions of Rule 1171 - Solvent Cleaning Operations.

(d) Recordkeeping Requirements

Records shall be maintained pursuant to Rule 109.

(e) Prohibition of Specifications

A person shall not specify the use in the District of any coating to be applied to any wood products subject to the provisions of this rule that does not meet the limits and/or requirements of this rule. The requirements of this paragraph shall apply to all written or oral contracts.

(f) Test Methods

(1) The VOC content of coatings and strippers shall be determined by:

(A) United States Environmental Protection Agency (USEPA) Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coating, Code of Federal Regulations Title 40, Appendix A), or Method 304 (Determination of Volatile Organic Compounds (VOCs) in Various Materials) in the South Coast Air Quality Management District (SCAQMD) "Laboratory Methods of Analysis for Enforcement Samples" manual.

(B) The exempt compounds' content shall be determined by:

(i) Methods 302 (Distillation of Solvents from Paints, Coatings and Inks) and 303 (Determination of Exempt Compounds) in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(ii) The following classes of compounds: 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 sulfur bonds only to carbon and fluorine, will be analyzed as exempt compounds for compliance with subdivision (c), only at such

time as manufacturers specify which individual compounds are used in the coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA and the SCAQMD, that can be used to quantify the amounts of each exempt compound.

(3) Film build thickness shall be determined using American Society of Testing Materials (ASTM) Test Method D 2691, as adopted in 1988.

(4) Gloss shall be determined using ASTM Test Method D 523, as adopted in 1989.

(5) For the purpose of calculating the VOC composite vapor pressure of a VOC-containing material, the composition of the material shall be based on the known formulation of the material or determined by Method 308 in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples".

(6) For determining the concentration of VOC in a gas stream and the efficiency of a control device, the total organic compound concentrations shall be determined using USEPA Test Method 25, 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable, and the concentration of exempt compounds shall be determined using either USEPA Test Method 18 or California Air Resources Board Method 422.

(7) The capture efficiency of an emission control system as defined in paragraph (b)(2) shall be determined by a minimum of three sampling runs subject to the data quality objective (DQO) presented in the USEPA technical guidance document "Guidelines for Determining Capture Efficiency", January 9, 1995. Individual capture efficiency test runs subject to the USEPA technical guidelines shall be determined by:

(A) Applicable USEPA Methods 204, 204A, 204B, 204C, 204E, and/or 204F; or

(B) The SCAQMD "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency; or

(C) Any other method approved by the USEPA, the California Air Resources Board, and the SCAQMD Executive Officer.

(8) The transfer efficiency of alternative coating application methods shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989."

(9) When more than one test method or set of test methods are 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 the rule.

(10) All test methods referenced in this subdivision shall be the most recently approved version.

(g) Continuous Monitors

(1) Each coating operation subject to subparagraph (c)(1)(C) shall have a continuous monitor, as approved by the Executive Officer, for any add-on control device used to meet the control requirement.

(2) Records of the monitoring devices pursuant to paragraph (g)(1) and other data necessary to demonstrate compliance with the control requirements shall be maintained on the premises and made accessible for a period of two years to the Executive Officer in a form and manner as specified by the Executive Officer.

(3) Compliance with subparagraph (c)(1)(C) shall be determined by source testing and/or evaluating continuous monitor data.

(4) Each monitoring device used pursuant to paragraph (g)(1) shall be calibrated in a manner approved by the Executive Officer and maintained in optimum working order.

(h) Rule 442 Applicability

Any coating, coating operation, or facility which is exempt from all or a portion of the VOC limits of this rule shall comply with the provisions of Rule 442 unless compliance with the limits specified in this rule is achieved.

(i) Alternative Emission Control Plan

An owner or operator may achieve compliance with paragraph (c)(1) by means of an Alternative Emission Control Plan pursuant to Rule 108.

(j) Emissions Averaging Provisions

(1) Owners or operators may comply with the provisions of subparagraph (c)(1)(A) by using an averaging approach, provided all requirements of this subdivision are met. The owner or operator shall demonstrate that actual

emissions from the coatings being averaged are less than or equal to 90 percent of the allowable emissions, on a daily basis, using the following inequality:

$$0.9 \sum_{i=1}^{n} VOC_i (U_i) \geq \sum_{i=1}^{n} ER_i (U_i)$$

Where:

VOC_i = VOC content limit of coating "i" (kilograms (kg) of VOC/liter of material for low solids stains; and kg VOC/kg solids for all other coatings), as required by subparagraph (c)(1)(A);

U_i = Usage of coating "i" (liters of material for low-solids stains; and kg of solids for all other coatings); and

ER_i = Actual VOC content of coating "i", as applied (kg of VOC/liter of material for low-solids stains; and kg VOC/kg solids for all other coatings).

(2) The emission averaging is limited to any combination of stains, sealers, clear topcoats, and pigmented coatings selected by the owners or operators. Any wood product coating not included in the emission averaging shall comply with the VOC limits in subparagraph (c)(1)(A).

(3) Emissions Averaging Plan (Plan)

Owners or operators using the averaging approach shall submit a Plan, pursuant to Rule 221 - Plans, to the Executive Officer and USEPA. The applicant must receive approval of the Plan in writing from the Executive Officer and USEPA prior to implementation. Submittal of the Plan does not provide an exemption from the rule requirements. The owner or operator shall resubmit, on an annual basis, a Plan for approval by the AQMD. The Plan shall include, at a minimum:

(A) A description of the wood product coatings to be included in the averaging program; and

(B) A description of the quantification and recordkeeping procedures for coating usage; coating VOC and solids content; VOC emissions; and calculations to show daily compliance with paragraph (j)(1).

(k) Exemptions

(1) The provisions of paragraphs (c)(1) and (c)(2) of this rule shall not apply to facilities that use less than one gallon per day of coating, as applied, subject to this rule.

(2) The provisions of this rule shall not apply to coating operations subject to, and in compliance with, the provisions of Rule 1104.

(3) The provisions of subparagraphs (c)(1)(A) and (C) shall not apply to the manufacturing of classic guitars until July 1, 1996.

(4) Refinishing, Replacement, and Custom Replica Furniture Operations: Until July 1, 1996, the provisions of subparagraphs (c)(1)(A) and (C) shall not apply to any refinishing operations necessary for preservation, to return the wood product to original condition, to replace missing furniture to produce a matching set, or to produce custom replica furniture, provided records are maintained daily for two years as to the amount, type and VOC content of each coating used.

(5) The provisions of paragraph (c)(1) shall not apply to touch-up and repair coatings until July 1, 1996.

(6) The provisions of this rule shall not apply to aerosol coating products.

(7) The provisions of subparagraph (c)(1)(A) that are effective on and after September 1, 1995 shall not apply until July 1, 1996 to clear topcoats, pigmented coatings and sealers applied to architectural millwork goods, provided that the coatings comply with the pre-September 1, 1995 VOC limits.

(8) Notwithstanding the requirements of Rule 109(c)(1), Recordkeeping for Volatile Organic Compound Emissions, any facility that switches to waterborne coatings that meet the July 1, 1996 VOC limits may request written approval from the Executive Officer to record data on up to a quarterly basis, provided the Executive Officer determines that such recordkeeping allows for an equivalent level of enforceability.

(9) The provisions of subparagraph (c)(2) shall not apply to any facility which obtains written approval from the Executive Officer and that is using coatings that have a lower VOC content than the July 1, 1996 VOC limits provided that following inequality is satisfied:

$$\frac{[\text{ compliant coating VOC limit (g / l) }]}{0.65} \geq \frac{[\text{as applied VOC limit (g / l) }]}{[\text{ transfer efficiency of application method }]}$$

~~Proposed~~ Rule 1140 - Abrasive Blasting

(a) Definitions

For the purpose of this rule the following definitions shall apply:

(1) Abrasive is any material used in an abrasive blasting operations including but not limited to sand, slag, steel shot, garnet or walnut shells.

(2) Abrasive Blasting is the cleaning or preparing of a surface by forcibly propelling a stream of abrasive material against the surface.

(3) Abrasive Blasting Equipment is any equipment used in abrasive blasting operations.

(4) Confined Blasting is any abrasive blasting conducted in an enclosure which significantly restricts air contaminants from being emitted to the ambient atmosphere, including but not limited to shrouding, tanks, drydocks, buildings, structures.

(5) Hydroblasting is any abrasive blasting using high pressure liquid as the propelling force.

(6) Multiple Nozzle describes more than one nozzle being used to abrasive blast the same surface in such close proximity that their separate plumes are indistinguishable.

(7) Permanent Abrasive Blasting Operation or Equipment is any abrasive blasting operation conducted, or abrasive blasting equipment located, in a building which is used, in whole or in part, for abrasive blasting operations.

(8) Sandblasting is abrasive blasting.

(9) Source is the impact surface from any single abrasive blasting nozzle.

(10) Unconfined Blasting is any abrasive blasting which does not conform with definitions (4) or (7) of this section.

(11) Vacuum Blasting is any abrasive blasting in which the spent abrasive and surface material is immediately collected by a vacuum device.

(12) Wet Abrasive Blasting is any abrasive blasting using compressed air as the propelling force, which in the judgement of the air pollution control officer uses an amount of water adequate to minimize the plume.

(b) Operating Requirements

(1) No person shall, if he complies with an applicable performance standard in Section (b)(4), discharge into the atmosphere from any abrasive blasting any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(A) As dark or darker in shade as that designated as No. 2 on the Ringelmann 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 Section (b)(1)(A).

(2) No person shall, if he is not complying with an applicable performance standard in Section (b)(4), discharge into the atmosphere from any abrasive blasting any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(A) As dark or darker in shade as that designated as No. 1 on the Ringelmann 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 Section (b)(2)(A).

(3) Compliance with all rules and regulations in this subchapter does not exempt any person from complying with the requirements of Rule 402, Nuisance.

(4) Any abrasive blasting operation except as provided for in Section (c)(2) shall comply with at least one of the following performance standards:

(A) Confined blasting shall be used;

(B) Wet abrasive blasting shall be used;

(C) Hydroblasting shall be used; or

(D) Dry unconfined blasting shall use abrasives as defined in Section (c).

(5) Surface preparation for raised traffic delineating markers and pavement marking removal using abrasive blasting shall comply with at least one of the following performance standards:

(A) Wet abrasive blasting, hydroblasting, or vacuum blasting shall be used;

(B) Dry unconfined abrasive blasting for removal or surface preparation for immediate application of pavement markings of less than 1,000 square feet or for surface preparation for raised traffic delineating markers shall use abrasives as defined in Section (c)(1).

(c) Requirements for Abrasives

(1) Except as provided in Section (c)(3) all abrasives used for dry unconfined blasting shall comply with the following performance standards:

(A) Before blasting the abrasive shall not contain more than 1% by weight material passing a #70 U.S. Standard sieve.

(B) After blasting, the abrasive shall not contain more than 1.8 percent by weight material five microns or smaller.

(2) No person shall conduct dry unconfined blasting unless the abrasive(s) used in such operation have been certified by the Air Resources Board, on at least an annual basis, to comply with the performance standards set forth in Section (c)(1).

(3) Certified abrasives reused for dry unconfined blasting are exempt from Section (c)(1)(B), but must conform to Section (c)(1)(A).

(4) All manufacturers and suppliers of abrasives certified for dry unconfined abrasive blasting shall legibly and permanently label the invoice, bill of lading and abrasive packaging or container with the following information:

(A) The manufacturer's name or identifiable trade name.

(B) The grade or brand name of the abrasive.

(C) The statement "ARB certified for dry unconfined blasting".

(d) Test Method

All abrasives used for dry unconfined blasting shall comply with the performance requirements of Section (c)(1)(A) and (c)(1)(B) when tested in accordance with

"Method of Test for Abrasive Media Evaluation, Test Method No. Calif. 371-A", or other test method approved by the Executive Officer.

(e) Visible Emission Evaluation

Visible emission evaluation of abrasive blasting operations shall be conducted in accordance with Title 17 of the California Administrative Code, Subchapter 6.

(f) Effective Dates

The owner or operator of any abrasive blasting operation subject to this rule shall comply with the provisions of this rule on the date of adoption.

3.14.84

Rule 1141.1 - Coatings and Ink Manufacturing

(a) Definitions

For the purpose of this rule the following definitions shall apply:

(1) A Coatings Manufacturer is an establishment that mixes, blends, and/or compounds paints, varnishes, lacquers, enamels, shellacs, or sealers, and is classified as 2851 in the Standard Industrial Classification Manual.

(2) An Ink Manufacturer is an establishment that mixes, blends, and/or compounds printing inks and is classified as 2893 in the Standard Industrial Classification Manual.

(3) ~~Reactive Organic Gases (ROG) means any gaseous chemical~~ compound which contains the element carbon; excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates and metallic carbides; and excluding methane, 1,1,1-trichloroethane, methylene chloride, trifluoromethane and chlorinated-fluorinated hydrocarbons.

(4) Waterbased Coating is a paint, varnish, lacquer, enamel, shellac, sealer or ink that contains 10 percent or more, by weight, of water, as determined by the analytical procedures in Rule 107.

(5) Paste Ink is an ink that contains, primarily, McGee oil and glycol as solvent.

(6) High Speed Dispersion Mill is a mixer with one or more blades that rotate at high speed in order to disperse coating solids.

(7) Grinding Mills are mills with cylindrical chambers containing grinding media such as balls, pebbles, or sand that grind and disperse coating solids.

(8) Roller Mills are mills with horizontal rollers that grind and disperse coating solids.

(b) Requirements

(1) On or after September 1, 1984, a person shall not manufacture coatings and/or inks unless:

(A) Portable mixing vats are kept covered, except to add ingredients or to take samples, with lids:

(i) that extend at least 1/2 inch beyond the outer rim of the vat or are attached to the rim of the vat; and

(ii) are maintained in good condition such that, when in place, they maintain contact with the rim for at least 90 percent of the circumference of the rim of the vat; and

(iii) may have a slit to allow clearance for insertion of a mixer shaft. The slit shall be covered after insertion of the mixer, except to allow safe clearance for the mixer shaft.

(B) Stationary mixing vats are covered; except to add ingredients or take samples.

(2) On or after September 1, 1984 a person shall not manufacture coatings and/or inks unless:

(A) Portable mixing vat cleaning is done in a way which minimizes the emissions of ROG into the atmosphere and the cleaning method is approved by the Executive Officer.

(B) Stationary vat cleaning is done in a way which minimizes the emissions of ROG into the atmosphere and the cleaning method is approved by the Executive Officer.

(C) High-speed dispersion mills, grinding mills and roller mills are cleaned in a way which minimizes the emissions of ROG into the atmosphere and is approved by the Executive Officer.

(3) Grinding mills installed after January 1, 1985 shall have fully enclosed screens.

(c) Exemptions

(1) The provisions of this rule, except subparagraph (d)(2), shall not apply to a coatings and/or ink manufacturer which produces less than 500 gallons of coatings and/or ink in any one day.

(2) The provisions of subsection (b)(1) of this rule shall not apply to equipment while it is being used in the production of waterbased coatings and/or paste inks.

(3) The provisions of subsections (b)(1) and (b)(2) of this rule shall not apply to equipment used to produce coatings in vats with a volume of 12 gallons or less.

(d) Compliance

(1) On or before July 1, 1984 a coating and/or ink manufacture shall:

(A) submit, for District approval, a description of the methods and equipment used to achieve compliance with subsections (b)(2)(A), (b)(2)(B), and (b)(2)(C), and

(B) submit applications for new permits to construct or operate, as necessary, for new or modified equipment involved in such methods.

(2) On or before July 1, 1984 a coating and/or ink manufacturer shall:

(A) submit, for District approval, a description of the methods/limitations which will ensure qualification for exemption under subsection (c)(1) of this rule, and

(B) submit applications for new permits to construct or operate, as necessary, for new and modified equipment, involved in such methods, and

(C) maintain records, for one year, including daily production records, substantiating compliance.

(3) On or after September 1, 1984 a coating and/or ink manufacturer shall operate under the approved conditions specified in the compliance plan and/or in permit applications, for compliance with subsection(s) (d)(1) and/or (d)(2).

(e) Fees

For the purpose of determining the appropriate processing fees only, the filing of a Compliance Plan(s) as provided in subparagraph (d)(1) and/or (d)(2), shall be considered the equivalent of filing an application for a permit. The person submitting the Plan shall be assessed a filing fee and an engineering evaluation fee as described in Rules 301 ~~and 301.1.~~

1-11-93

(Adopted July 8, 1983)(Amended December 5, 1986)(Amended February 6, 1987)
(Amended April 3, 1987)(Amended August 7, 1987)(Amended December 2, 1988)
(Amended February 3, 1989)(Amended April 7, 1989)(Amended March 2, 1990)
(Amended November 2, 1990)(Amended December 7, 1990)(Amended August 2, 1991)
(Amended January 10, 1992)

RULE 1145. PLASTIC, RUBBER, AND GLASS COATINGS

(a) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) CARPET BACKING is the material applied to the un-napped surface of a carpet.

(2) CLEAR COATING is a colorless coating which contains binders, but no pigment, and is formulated to form a transparent film.

(3) COATING means a layer of material applied on a substrate that forms a film.

(4) COATING APPLICATION EQUIPMENT is any equipment used to apply coating to a substrate. Coating application equipment includes coating distribution lines, coating hoses, pressure-pots, spray guns, and hand-application equipment.

(5) DIP COATER is a type of application equipment that coats an object by submerging the object in a vat of coating, and subsequently withdrawing the object and draining off the excess coating.

(6) ELECTRIC DISSIPATING COATING is a coating that rapidly dissipates a high-voltage electric charge.

(7) ELECTROSTATIC APPLICATION is a method of applying coating whereby atomized paint droplets are charged and subsequently deposited on the substrate by electrostatic attraction.

(8) EMI/RFI SHIELDING is a coating used on electrical or electronic equipment to provide shielding against electromagnetic interference, radio frequency interference, or static discharge.

(9) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I
trifluoromethane (HFC-23)
chlorodiflurormethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
tetrafluoroethane (HFC-134a)

dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)
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
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II
methylene chloride
1,1,1-trichloroethane (methyl chloroform)
carbon tetrachloride
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

Use of Group II compounds may be restricted in the future because they are toxic or potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. The District Board has adopted a policy which states that chlorofluorocarbons (CFC) will be phased out at the earliest practicable date on or before 1997.

(10) FLOW COATER is a type of coating application equipment that coats an object by flowing a stream of coating over the object and draining off any excess coating.

(11) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS, is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:
W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters

(12) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

Where:
W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters

(13) HAND-APPLICATION METHODS are the methods used to apply coating to substrate by manually held, non-mechanically operated equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

(14) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a coating application system which is operated between 0.1 and 10 psig flow pressure at the air cap/tip of the spray gun.

(15) HIGHWAY CONES are cones used to regulate traffic.

(16) INK is a fluid that contains dyes and/or colorants, and is used to make markings but not to protect surfaces.

(17) MASK COATING is thin film coating applied through a template to coat a small portion of a substrate.

(18) METALLIC COATING is a coating which contains more than 5 grams of metal particles per liter of coating as applied.

(19) METAL PARTICLES are pieces of a pure elemental metal or a combination of elemental metals.

(20) MILITARY SPECIFICATION COATING is a coating which has a formulation approved by the United States Military Agency for use on military equipment.

(21) MIRROR BACKING is the coating applied over the silvered surface of a mirror.

(22) MOLD SEAL COATING is the initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

(23) MOTOR VEHICLE is a passenger car, light-duty truck, medium-duty vehicle, or heavy-duty vehicle as defined in Section 1900, Title 13, California Administrative Code.

(24) MULTI-COLORED COATING is a coating which exhibits more than one color when applied, and which is packaged in a single container and applied in a single coat.

(25) ONE-COMPONENT COATING is coating that is ready for application to form an acceptable dry film. A thinner necessary to reduce the viscosity is not considered a component.

(26) OPTICAL COATING is a coating applied to an optical lens.

(27) REPAIR COATING is a coating used to re-coat portions of a previously coated product which has sustained mechanical damage to the coating following normal coating operations.

(28) ROLL COATER is a type of coating application equipment that utilizes a series of mechanical rollers to form a thin coating film on the surface of a roller, which is then applied to a substrate by moving the substrate underneath the roller.

(29) SHOCK-FREE COATING is a coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance and high resistance, and having resistance to breaking down under high voltage.

(30) STENCIL COATING is an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers.

(31) TOUCH-UP COATING is a coating used to cover minor imperfections appearing after the main coating operation.

(32) TRANSFER EFFICIENCY is the ratio of the weight or volume of coating solids adhering to an object to the total weight or volume,

respectively, of coating solids used in the application process, expressed as a percentage.

(33) TRANSLUCENT COATING is a coating which contains binders and pigment, and is formulated to form a colored, but not opaque, film.

(34) TWO-COMPONENT COATING is a coating requiring the addition of a separate reactive resin, commonly known as a catalyst, before application to form an acceptable dry film.

(35) VACUUM METALIZING is the process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

(36) VOLATILE ORGANIC COMPOUND (VOC) is any compound which contains the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds other than carbon tetrachloride.

(b) Requirements

(1) Prohibition of Specifications

A person shall not specify the use, in the District, of any coating to be applied to any glass, rubber, or plastic subject to the provisions of this rule that does not meet the limits and requirements of this rule. The requirements of this paragraph shall apply to all written or oral contracts.

(2) A person shall not apply on plastics, glass, or rubber any coatings which are applied with a VOC content in excess of the limits specified below:

COATING	VOC LIMITS Less Water and Less Exempt Compounds	
	g/L	lbs/gal
General Coatings		
One-component	275	2.3
Two-component	420	3.5
Military Spec. Coating		
One-component	340	2.8
Two-component	420	3.5
Multi-Colored Coatings	685	5.7
Mold Seal Coatings	750	6.3
Vacuum Metalizing Coatings	800	6.7
Mirror Backing		
Curtain Coated	500	4.2
Roll Coated	430	3.6

COATING (Cont.)	VOC LIMITS Less Water and Less Exempt Compounds	
	g/L	lbs/gal
Optical Coatings	800	6.7
Electric Dissipating Coatings and Shock-Free Coatings	800	6.7
Metallic Coatings	420	3.5

(3) A person shall not use VOC-containing materials which contain more than 200 grams of VOC per liter of material for surface preparation or cleanup, excluding coating application equipment cleaning.

(4) Containers shall be used for the disposal of VOC-laden cloth or paper used in surface preparation, cleanup, and the removal of uncured coating, and shall be closed except when depositing or removing VOC-laden cloth or rags from the container.

(5) Containers shall be used for the disposal of VOC-laden cloth or paper used in stripping of cured coatings, and shall be closed except when depositing or removing VOC-laden cloth or paper from the container.

(6) A person shall not use VOC-containing materials for the cleanup of equipment used in coating operations unless:

(A) the VOC is collected in a container which is closed when not in use and properly disposed of, such that VOC is not emitted to the atmosphere; or

(B) the spray equipment is disassembled and cleaned in a solvent vat, and the vat is closed when not in use; or

(C) the cleanup materials contain 200 grams or less, by weight, of VOC per liter of material.

(7) A person shall not use VOC-containing materials which contain more than 200 grams of VOC per liter of material for the stripping of cured coatings.

(8) Solvent Cleaning Operations; Storage and Disposal of VOC-containing Materials. Paragraphs (b)(3), (b)(4), and (b)(6) above shall be superseded by paragraphs (c)(1), (c)(2), (c)(4), and (c)(6) of Rule 1171 - Solvent Cleaning Operations, on and after July 1, 1992.

(9) Notwithstanding the provisions of paragraph (b)(2), a person shall not apply on plastics, rubber, or glass any automotive coating used to match the existing coating of motor vehicles, including any VOC-containing materials added to the original coating as supplied by the manufacturer, in excess of the limits specified in Table 1 of subparagraph (c)(1)(A) of Rule 1151 for parts to be used on Group I Vehicles, as defined in Rule 1151, and in Table 2 of subparagraph (c)(1)(B) of Rule 1151 for parts to be used on Group II Vehicles, as defined in Rule 1151.

The provisions of this paragraph shall apply provided that the applicator submits a petition, in writing, to the Executive Officer which demonstrates the need to apply such coatings and receives written approval from the Executive Officer prior to the application of such coatings.

(10) Transfer Efficiency

Effective July 1, 1992, a person shall not apply coatings unless the coating is applied with equipment operated according to manufacturer's specifications, and by the use of one of the following methods:

(A) electrostatic application; or

(B) flow coater; or

(C) roll coater; or

(D) dip coater; or

(E) hand application methods; or

(F) high-volume, low-pressure (HVLP) spray; or

(G) such other alternative spray application methods as are demonstrated, in accordance with the provisions of paragraph (d)(4), to be capable of achieving equivalent or better transfer efficiency than the application method listed in subparagraph (b)(10)(F), and for which written approval of the Executive Officer has been obtained.

(11) Air Pollution Control Equipment

A person may comply with the provisions of paragraph (b)(2), (b)(9), or (b)(10) by using air pollution control equipment, provided that the VOC

emissions from such operations or materials are reduced in accordance with provisions of (A) and (B) below:

(A) The control device shall reduce VOC emissions from an emission collection system by at least 95 percent, by weight, or the concentration of VOC in the output of the air pollution control device shall be less than 50 PPM calculated as carbon with no dilution.

(B) The owner/operator demonstrates that the system collects at least 90 percent, by weight, of the VOC emissions generated by the sources of emissions.

(c) Recordkeeping Requirements

Records shall be maintained pursuant to Rule 109.

(d) Compliance Test Methods

For the purpose of this rule, the following test methods shall be used:

(1) The VOC content of materials subject to the provisions of this rule shall be determined by:

(A) The United States Environmental Protection Agency (USEPA) Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A). The exempt compound's content shall be determined by the South Coast Air Quality Management District's (SCAQMD) Laboratory Methods of Analysis for Enforcement Samples - Section III, Methods 19 and 22; or

(B) SCAQMD's Laboratory Methods of Analysis for Enforcement Samples - Section III, Methods 16, 17, 19, 22, and 24.

(C) The following classes of compounds: 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 sulfur bonds only to carbon and fluorine,

will be analyzed as exempt compounds for compliance with paragraph (b), only at such time as manufacturers specify which individual compounds are used in the coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA and the SCAQMD, that can be used to quantify the amounts of each exempt compound. VOC emissions determined to exceed any limits established by this rule through the use of the above-referenced test methods shall constitute a violation of the rule.

(2) The capture efficiency of the emissions collection system shall be determined by the USEPA method cited in 55 FR (Federal Register) 26865, June 29, 1990.

(3) The efficiency of the control device, and the VOC content measured and calculated as carbon in the control device exhaust gases, shall be determined by USEPA's Test Method 18, or Air Resources Board (ARB) Method 422 for the determination of emissions of exempt compounds and, USEPA's Test Method 25, 25A, or SCAQMD's Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) for the determination of total organic compound emissions. Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of the rule.

(4) The transfer efficiency of alternative coating application methods shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989."

(e) Alternative Emission Control

A person may achieve compliance with paragraph (b)(2) or (b)(9) by means of an Alternative Emission Control Plan pursuant to Rule 108.

(f) Rule 442 Applicability

Any coating, coating operation, or facility which is exempt from all or a portion of this rule shall comply with the provisions of Rule 442.

(g) Exemptions

(1) The provisions of paragraph (b)(2) shall not apply to the following:

(A) Touch-up and repair coatings;

(B) Stencil coatings applied on clear or transparent substrates;

(C) Clear or translucent coatings, except for those subject to paragraph (b)(9);

(D) Coatings applied at a paint manufacturing facility while conducting performance tests on the coatings;

(E) Any individual coating category used in volumes less than 50 gallons in any one year, if substitute compliant coatings are not available, provided that the total usage of all such coatings does not exceed 200 gallons per year, per facility;

(F) Reflective coating applied to highway cones;

(G) Mask coatings.

(i) Coatings that are less than 0.5 millimeter thick (dried) and the area coated is less than 25 square inches; or

(ii) Coatings that are less than 0.5 millimeter thick (dried) and/or the area coated is more than 25 square inches, and provided that a written petition is submitted to the Executive Officer which demonstrates, to the satisfaction of the Executive Officer, that compliant coatings are not available, and written approval is granted by the Executive Officer;

(H) EMI/RFI shielding coatings; and

(I) Heparin-benzalkonium chloride (HBAC) - containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed 100 gallons per year, per facility.

(2) The provisions of paragraph (b)(3) shall not apply to the cleaning of polycarbonates.

(3) The provisions of paragraph (b)(10) shall not apply to aerosol container applications.

5/13/94

(Adopted September 9, 1988)(Amended January 6, 1989)(Amended May 13, 1994)

RULE 1146. EMISSIONS OF OXIDES OF NITROGEN FROM INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS

(a) Definitions

(1) ANNUAL CAPACITY FACTOR means the ratio of the amount of fuel burned by a unit in a calendar year to the amount of fuel it could have burned if it had operated at the rated heat input capacity for 100 percent of the time during the calendar year.

(2) ANNUAL HEAT INPUT means the actual amount of heat released by fuels burned in a unit during a calendar year.

(3) BOILER or STEAM GENERATOR means any combustion equipment fired with liquid and/or gaseous and/or solid fossil fuel and used to produce steam or to heat water and that is not used exclusively to produce electricity for sale. Boiler or Steam Generator does not include any waste heat recovery boiler that is used to recover sensible heat from the exhaust of a combustion turbine or any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment.

(4) BTU means British thermal unit.

(5) HEAT INPUT means the chemical heat released due to fuel combustion in a unit, using the higher heating value of the fuel. This does not include the sensible heat of incoming combustion air.

(6) NO_x EMISSIONS means the sum of nitric oxide and nitrogen dioxide in the flue gas, collectively expressed as nitrogen dioxide.

(7) PROCESS HEATER means any combustion equipment fired with liquid and/or gaseous and/or solid fossil fuel and which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, curing, baking, cooking, calcining, or vitrifying; or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment.

(8) RATED HEAT INPUT CAPACITY means the heat input capacity specified on the nameplate of the combustion unit. If the combustion

unit has been altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the new maximum heat input shall be considered as the rated heat input capacity.

(9) THERM means 100,000 Btu.

(10) UNIT means any boiler, steam generator, or process heater as defined in subparagraph (3) or (7) of this paragraph.

(b) Applicability

This rule applies to boilers, steam generators, and process heaters of equal to or greater than 5 million Btu per hour rated heat input capacity used in all industrial, institutional, and commercial operations with the exception of:

(1) boilers used by electric utilities to generate electricity; and

(2) boilers and process heaters with a rated heat input capacity greater than 40 million Btu per hour that are used in petroleum refineries; and

(3) sulfur plant reaction boilers.

(c) Requirements

(1) The owner or operator of any unit(s) shall not discharge into the atmosphere oxides of nitrogen, expressed as nitrogen dioxide (NO_2), in excess of the concentrations shown in the following table.

Input Capacity		Rated Heat Annual Heat Input	Gaseous, Liquid, or Solid Fossil Fuels
Equal to or greater than 5 million Btu per hour	And	Greater than 9×10^9 Btu per yr (90,000 Therms) fuel use	40 ppm (0.05 lb per 10^6 Btu of heat input)
Equal to or greater than 40 million Btu per hour	And	Greater than 25% annual capacity factor	30 ppm
Equal to or greater than 40 million Btu per hour	And	Equal to or less than 25% annual capacity factor and greater than 9×10^9 Btu (90,000 Therms) per year fuel use	40 ppm

Carbon monoxide (CO) emissions from unit(s) subject to this subparagraph shall not exceed 400 ppm.

(2) Any unit(s) with a rated heat input capacity greater than or equal to 5 million Btu per hour and an annual heat input less than or equal to 9.0 x 10^9 Btu per year, shall:

(A) be operated in a manner that maintains stack gas oxygen concentrations at less than or equal to 3 percent on a dry basis for any 15-consecutive-minute averaging period; or

(B) be tuned at least twice per year, (at intervals from 4 to 8 months apart) in accordance with the procedure described in Attachment 1 or the unit manufacturer's specified tuneup procedure. If a different tuneup procedure from that described in Attachment 1 is used then a copy of this procedure shall be kept on site. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tuneup is required for that calendar year. The operator of any unit(s) who specifies the tuneup option shall maintain a record for a period of two years verifying that the tuneup has been performed. No tune-up is required during a calendar year for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use but once the test firing is completed the unit shall be shutdown. Records of test firings shall be maintained for a period of two years, and shall be made accessible to an authorized District representative upon request; or

(C) meet the NO_x and CO emission limits specified in paragraph (c)(1).

(3) The owner or operator of any unit(s) subject to subparagraph (c)(2) shall submit for the approval of the Executive Officer a compliance plan that demonstrates compliance with subparagraph (c)(2). Such plan shall contain:

(A) A list of permits of all units with the rated heat input capacity and anticipated annual heat input.

(B) For each unit listed, a selection of one of the three options specified in subparagraph (c)(2) to achieve compliance with this rule.

(C) Nonresettable fuel totalizing meter specifications for each fuel used, date of meter installation, records of fuel use for each unit during the last two years starting from March 1, 1991. The plan shall be disapproved if for any continuous 12-month period, the annual fuel usage exceeds 90,000 therms. In this case the unit shall have to comply with the emission limits specified in paragraph (c)(1).

(4) Any unit(s) with a rated heat input capacity greater than or equal to 40 million Btu per hour and an annual heat input greater than 200×10^9 Btu per year shall have a continuous in-stack nitrogen oxides monitor or equivalent verification system in compliance with 40 CFR part 60 Appendix B Specification 2. Maintenance and emission records shall be maintained and made accessible for a period of two years as to the Executive Officer.

(5) Any owner or operator who chooses the pound per million Btu compliance option specified in subparagraph (c)(1) shall install a totalizing fuel meter to measure the total of each fuel used by each individual unit, as approved by the Executive Officer.

(6) Any owner or operator of a unit not covered under the provisions of subparagraphs (c)(1) or (c)(4) based on annual heat input, shall:

(A) have installed by February 1, 1989 for units with a rated heat input capacity equal to or greater than 5 but less than 40 million Btu per hour, or by May 1, 1989 for units with a rated heat input capacity equal to or greater than 40 million Btu per hour, or at the time the unit is constructed, a totalizing meter for each fuel that demonstrates that the unit(s) operated at or below the applicable heat input levels; and

(B) have available for inspection by the Executive Officer by March 1 of each year, records listing cumulative annual usage of each fuel for the preceding calendar year. Records shall be maintained and

made accessible to the Executive Officer for a period of two years; and

(C) demonstrate that the annual heat input is less than or equal to the applicable amount listed in subparagraph (c)(1) and/or (c)(4).

(7) If any unit subject to a compliance plan submitted pursuant to paragraph (c)(3) exceeds 90,000 therms of annual heat input from all fuels used in any calendar year after 1991, the operators shall:

(A) Within 4 months after the end of the calendar year during which the unit exceeded 90,000 therms of annual heat input, submit required applications for permits to construct and operate; and

(B) Within 18 months after the end of the calendar year during which the unit exceeded 90,000 therms of annual heat input, demonstrate and maintain compliance with paragraph (c)(1) and if applicable (c)(4) for the life of the unit; and

(C) Maintain compliance with requirements of paragraph (c)(2) until compliance with paragraph (c)(1) and, if applicable, (c)(4).

(d) Compliance Determination

(1) An owner or operator of any unit(s) shall have the option of complying with either the pound per million Btu or parts per million emission limits specified in subparagraph (c)(1).

(2) All emission determinations shall be made in the as-found operating condition, except no compliance determination shall be established during start-up, shutdown, or under breakdown conditions.

(3) All parts per million emission limits specified in paragraph (c) are referenced at 3 percent volume stack gas oxygen on a dry basis averaged over a period of 15 consecutive minutes.

(4) Compliance with the NO_x and CO emission requirements of paragraph (c)(1) and the stack-gas oxygen concentration requirement of paragraph (c)(2)(A) shall be determined according to procedures in District Source Test Method 100.1 - Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling (March 1989), or Method 7.1 - Determination of Nitrogen Oxide Emissions from Stationary Sources (March 1989) and Method 10.1 - Carbon Monoxide and Carbon Dioxide

by Gas Chromatograph/Non-Dispersive Infrared Detector (GC/NDIR) - Oxygen by Gas Chromatograph-Thermal Conductivity (GC/TCD) (March 1989), or any other test method determined to be equivalent and approved before the test in writing by the Executive Officers of the District and the California Air Resources Board and the Regional Administrator of the United States Environmental Protection Agency, Region IX. Records of all source tests shall be maintained for a period of two years and shall be made available to District personnel upon request. Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of this rule.

(5) For any operator who chooses the pound per million Btu of heat input compliance option of paragraph (c)(1), NO_x emissions in pounds per million Btu of heat input shall be calculated using procedures in 40 CFR Part 60, Appendix A, Method 19, Sections 2 and 3.

(e) Compliance Schedule

The owner or operator of units subject to this rule shall meet the following increments of progress:

(1) For owners or operators of units subject to subparagraph (c)(2), as of March 1, 1990, demonstrate final compliance with subparagraph (c)(2).

(2) For owners or operators of units with a rated heat input capacity equal to or greater than 10 million Btu per hour or equal to or greater than 40 million Btu per hour and less than 25 percent annual capacity factor that are subject to the 40 ppm emission limit specified in subparagraph (c)(1):

As of September 1, 1991, demonstrate compliance with subparagraph (c)(1) and, if applicable, subparagraph (c)(4).

(3) For owners or operators of units with a rated heat input capacity equal to or greater than 5 million Btu per hour, but less than 10 million Btu per hour, that are subject to the 40 ppm emission limit specified in subparagraph (c)(1):

As of March 1, 1992, demonstrate compliance with subparagraph (c)(1).

(4) For owners or operators of units with a rated heat input capacity equal to or greater than 40 million Btu per hour and an annual capacity factor greater than 25% that are subject to the 30 ppm emission limit specified in subparagraph (c)(1):

As of July 1, 1993, demonstrate compliance with subparagraph (c)(1), and if applicable, demonstrate compliance with subparagraph (c)(4).

(5) The provisions of subparagraph (c)(1) and/or (c)(4) shall become applicable for the life of the unit on March 1, of any calendar year if that unit operated for the previous calendar year at an annual heat input greater than the annual applicable heat input levels.

ATTACHMENT 1

A. Equipment Tuning Procedure[1] for Forced-Draft Boilers, Steam Generators, and Process Heaters

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurors, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant regulations and requirements.
Should a different tuning procedure be used, a copy of this procedure should be kept with the unit records for two years and made available to the District personnel on request.

1. Operate the unit at the firing rate most typical of normal operation. If the unit experiences significant load variations during normal operation, operate it at its average firing rate.
2. At this firing rate, record stack gas temperature, oxygen concentration, and CO concentration (for gaseous fuels) or smoke-spot number[2] (for liquid fuels), and observe flame conditions after unit operation stabilizes at the firing rate selected. If the excess oxygen in the stack gas is at the lower end of the range of typical minimum values[3], and if CO emissions are low and there is not smoke, the unit is probably operating at near optimum efficiency - at this particular firing rate.

   However, complete the remaining portion of this procedure to determine whether still lower oxygen levels are practical.

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[1]This tuning procedure is based on a tune-up procedure developed by KVB, Inc. for the United States EPA.

[2]The smoke-spot number can be determined with ASTM Test Method D-2156 or with the Bacharach method. ASTM Test Method D-2156 is included in a tuneup kit that can be purchased from the Bacharach Company.

[3]Typical minimum oxygen levels for boilers at high firing rates are:

1. For natural gas: 0.5% - 3%
2. For liquid fuels: 2% - 4%

ATTACHMENT 1 (Cont.)

3. Increase combustion air flow to the furnace until stack gas oxygen levels increase by one to two percent over the level measured in Step 2. As in Step 2, record the stack gas temperature, CO concentration (for gaseous fuels) or smoke-spot number (for liquid fuels), and observe flame conditions for these higher oxygen levels after boiler operation stabilizes.

4. Decrease combustion air flow until the stack gas oxygen concentration is at the level measured in Step 2. From this level gradually reduce the combustion air flow, in small increments. After each increment, record the stack gas temperature, oxygen concentration, CO concentration (for gaseous fuels) and smoke-spot number (for liquid fuels). Also observe the flame and record any changes in its condition.

5. Continue to reduce combustion air flow stepwise, until one of these limits is reached:
   a. Unacceptable flame conditions - such as flame impingement on furnace walls or burner parts, excessive flame carryover, or flame instability.
   b. Stack gas CO concentrations greater than 400 ppm.
   c. Smoking at the stack.
   d. Equipment-related limitations - such as low windbox/furnace pressure differential, built in air-flow limits, etc.

6. Develop an O_2/CO curve (for gaseous fuels) or O_2/smoke curve (for liquid fuels) similar to those shown in Figures 1 and 2 using the excess oxygen and CO or smoke-spot number data obtained at each combustion air flow setting.

7. From the curves prepared in Step 6, find the stack gas oxygen levels where the CO emissions or smoke-spot number equal the following values:

Fuel	Measurement	Value
Gaseous	CO Emissions	400 ppm
#1 and #2 oils	smoke-spot number	number 1
#4 oil	smoke-spot number	number 2
#5 oil	smoke-spot number	number 3
Other oils	smoke-spot number	number 4

The above conditions are referred to as the CO or smoke thresholds, or as the minimum excess oxygen level.

Compare this minimum value of excess oxygen to the expected value provided by the combustion unit manufacturer. If the minimum level found is substantially

ATTACHMENT 1 (Cont.)

higher than the value provided by the combustion unit manufacturer, burner adjustments can probably be made to improve fuel and air mixing, thereby allowing operation with less air.

8. Add 0.5 to 2.0 percent of the minimum excess oxygen level found in Step 7 and reset burner controls to operate automatically at this higher stack gas oxygen level. This margin above the minimum oxygen level accounts for fuel variations, variations in atmospheric conditions, load changes, and nonrepeatability or play in automatic controls.

9. If the load of the combustion unit varies significantly during normal operation, repeat Steps 1-8 for firing rates that represent the upper and lower limits of the range of the load. Because control adjustments at one firing rate may affect conditions at other firing rates, it may not be possible to establish the optimum excess oxygen level at all firing rates. If this is the case, choose the burner control settings that give best performance over the range of firing rates. If one firing rate predominates, settings should optimize conditions at that rate.

10. Verify that the new settings can accommodate the sudden load changes that may occur in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack. If any of the conditions in Step 5 result, reset the combustion controls to provide a slightly higher level of excess oxygen at the affected firing rates. Next, verify these new settings in a similar fashion. Then make sure that the final control settings are recorded at steady-state operating conditions for future reference.

11. When the above checks and adjustments have been made, record data and attach combustion analysis data to boiler, steam generator, or heater records indicating name and signature of person, title, and date the tuneup was performed.

ATTACHMENT 1 (Cont.)

B. Equipment Tuning Procedure for Natural Draft-Fired Boilers, Steam Generators, and Process Heaters.

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant codes, regulations, and equipment manufacturers specifications and operating manuals.

Should a different tuning procedure be used, a copy of this procedure should be kept with the unit records for two years and made available to the District personnel on request.

1. PRELIMINARY ANALYSIS

   a. CHECK THE OPERATING PRESSURE OR TEMPERATURE.
   Operate the boiler, steam generator, or heater at the lowest acceptable pressure or temperature that will satisfy the load demand. This will minimize heat and radiation losses. Determine the pressure or temperature that will be used as a basis for comparative combustion analysis before and after tuneup.

   b. CHECK OPERATING HOURS.
   Plan the workload so that the boiler, steam generator, or process heater operates only the minimum hours and days necessary to perform the work required. Fewer operating hours will reduce fuel use and emissions. For units requiring a tuneup to comply with the rule, a totalizing non-resettable fuel meter will be required for each fuel used and for each boiler, steam generator, and heater to prove fuel consumption is less than the heat input limit in therms per year specified in the rule.

   c. CHECK AIR SUPPLY.
   Sufficient fresh air supply is essential to ensure optimum combustion and the area of air supply openings must be in compliance with applicable codes and regulations. Air openings must be kept wide open when the burner is firing and clear from restriction to flow.

ATTACHMENT 1 (Cont.)

d. CHECK VENT.

Proper venting is essential to assure efficient combustion. Insufficient draft or overdraft promotes hazards and inefficient burning. Check to be sure that vent is in good condition, sized properly and with no obstructions.

e. COMBUSTION ANALYSIS.

Perform an "as is" combustion analysis (CO, O_2, etc.) with a warmed up unit at high and low fire, if possible. In addition to data obtained from combustion analysis, also record the following:

i. Inlet fuel pressure at burner (at high & low fire)

ii. Draft above draft hood or barometric damper

1) Draft hood: high, medium, and low

2) Barometric Damper: high, medium, and low

iii. Steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the boiler, steam generator, or process heater.

iv. Unit rate if meter is available.

With above conditions recorded, make the following checks and corrective actions as necessary:

2. CHECKS & CORRECTIONS

a. CHECK BURNER CONDITION.

Dirty burners or burner orifices will cause boiler, steam generator, or process heater output rate and thermal efficiency to decrease. Clean burners and burner orifices thoroughly. Also, ensure that fuel filters and moisture traps are in place, clean, and operating properly, to prevent plugging of gas orifices. Confirm proper location and orientation of burner diffuser spuds, gas canes, etc. Look for any burned-off or missing burner parts, and replace as needed.

b. CHECK FOR CLEAN BOILER, STEAM GENERATOR, OR PROCESS HEATER TUBES & HEAT TRANSFER SURFACES.

External and internal build-up of sediment and scale on the heating surfaces creates an insulating effect that quickly reduces unit efficiency.

Excessive fuel cost will result if the unit is not kept clean. Clean tube surfaces, remove scale and soot, assure proper process fluid flow and flue gas flow.

c. CHECK WATER TREATMENT & BLOWDOWN PROGRAM.
Soft water and the proper water or process fluid treatment must be uniformly used to minimize scale and corrosion. Timely flushing and periodic blowdown must be employed to eliminate sediment and scale build-up on a boiler, steam generator or process heater.

d. CHECK FOR STEAM, HOT WATER OR PROCESS FLUID LEAKS.
Repair all leaks immediately since even small high-pressure leaks quickly lead to considerable fuel, water and steam losses. Be sure there are no leaks through the blow-off, drains, safety valve, by-pass lines or at the feed pump, if used.

3. SAFETY CHECKS

a. Test primary and secondary low water level controls.
b. Check operating and limit pressure and temperature controls.
c. Check pilot safety shut off operation.
d. Check safety valve pressure and capacity to meet boiler, steam generator or process heater requirements.
e. Check limit safety control and spill switch.

4. ADJUSTMENTS

While taking combustion readings with a warmed up boiler, steam generator, or process heater at high fire perform checks and adjustments as follows:

a. Adjust unit to fire at rate; record fuel manifold pressure.
b. Adjust draft and/or fuel pressure to obtain acceptable, clean combustion at both high, medium and low fire. Carbon Monoxide (CO) value should always be below 400 parts per million (PPM) at 3% 0_2. If CO is high make necessary adjustments.

Check to ensure boiler, steam generator, or process heater light offs are smooth and safe. A reduced fuel pressure test at both high and low fire should be conducted in accordance with the manufacturers instructions and maintenance manuals.

ATTACHMENT 1 (Cont.)

c. Check and adjust operation of modulation controller. Ensure proper, efficient and clean combustion through range of firing rates.

When above adjustments and corrections have been made, record all data.

5. **FINAL TEST**

Perform a final combustion analysis with a warmed up boiler, steam generator, or process heater at high, medium and low fire, whenever possible. In addition to data from combustion analysis, also check and record:

a. Fuel pressure at burner (High, Medium, and Low).

b. Draft above draft hood or barometric damper (High, Medium and Low).

c. Steam pressure or water temperature entering and leaving boiler, steam generator, or process heater.

d. Unit rate if meter is available.

When the above checks and adjustments have been made, record data and attach combustion analysis data to boiler, steam generator, or process heater records indicating name and signature of person, title, company name, company address and date the tuneup was performed.

7/13/94

(Adopted October 5, 1990)(Amended July 10, 1992)(Amended May 13, 1994)

RULE 1146.1. EMISSIONS OF OXIDES OF NITROGEN FROM SMALL INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS

(a) Definitions

(1) ANNUAL HEAT INPUT means the actual amount of heat released by fuels burned in a unit during a calendar year, based on the fuel's higher heating value.

(2) BOILER OR STEAM GENERATOR means any combustion equipment fired with liquid and/or gaseous and/or solid fossil fuel, used to produce steam or to heat water, and that is not used exclusively to produce electricity for sale. Boiler or Steam Generator does not include any waste heat recovery boiler that is used to recover sensible heat from the exhaust of a combustion turbine or any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment.

(3) BTU means British thermal unit or units.

(4) NO_x EMISSIONS means the sum of nitric oxide and nitrogen dioxide in the flue gas, collectively expressed as nitrogen dioxide.

(5) PROCESS HEATER means any combustion equipment fired with liquid and/or gaseous and/or solid fossil fuel and which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, curing, baking, cooking, calcining, or vitrifying; or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment.

(6) RATED HEAT INPUT CAPACITY means the heat input capacity specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the new maximum heat input shall be considered as the rated heat input capacity.

(7) THERM means 100,000 Btu.

(8) UNIT means any boiler, steam generator, or process heater as defined in paragraph (a)(2) or (a)(5).

(b) Applicability

This rule applies to boilers, steam generators, and process heaters that are greater than 2 million Btu per hour and less than 5 million Btu per hour rated heat input capacity used in any industrial, institutional, or commercial operation.

(c) Requirements

(1) The owner or operator of any unit subject to subdivision (b) shall operate such unit so that it discharges into the atmosphere no more than 30 ppm of NO_X emissions or 0.037 pound NO_X per million Btu of heat input, as specified in the permit to operate and no more than 400 ppm of carbon monoxide. For each unit, a selection must be indicated in the application for permit to construct and operate between the ppm NO_X or pounds of NO_X per million BTU heat input compliance option.

(2) Any unit(s) subject to subdivision (b), and with an annual heat input of less than or equal to 18,000 therms per calendar year, shall:

(A) be operated in a manner that maintains stack-gas oxygen concentrations at less than or equal to 3 percent on a dry basis for any 15-consecutive-minute averaging period; or

(B) be tuned at least twice per year, (at intervals from 4 to 8 months apart) in accordance with the procedure described in Attachment 1 or the unit manufacturer's specified tuneup procedure. If a different tuneup procedure from that described in attachment 1 is used then a copy of this procedure shall be kept on site. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tuneup is required for that calendar year. The owner or operator of any unit(s) who chooses to comply with subparagraph (c)(2)(B) shall maintain a record for a period of two years verifying that the tuneup has been performed. No tune-up is required during a calendar year for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use but once test firing is completed it shall be shutdown. Records of test firings shall be maintained for a period of two years, and shall be made accessible upon request from an authorized District representative; or

(C) meet the emission limits specified in paragraph (c)(1).

(3) The owner or operator of any unit(s) subject to paragraph (c)(2) shall submit and have approved by the Executive Officer, a compliance plan that demonstrates compliance with paragraph (c)(2). Such plan shall contain:

(A) A list of permits of all units with the rated heat input capacity, anticipated annual heat input; and

(B) For each unit listed, a selection of one of the three options specified in paragraph (c)(2) to achieve compliance with this rule; and

(C) Non-resettable, totalizing fuel meter(s) specifications; date of installation; and recorded fuel usage since installation.

(4) Any owner or operator who chooses the pound per million Btu of heat input compliance option in paragraph (c)(1) shall install a non-resettable, totalizing fuel meter for each fuel used on an individual unit basis, as approved by the Executive Officer.

(d) Compliance Determination

(1) Owners or operators of any units shall have the option of complying with either the pound per million Btu of heat input or parts per million emission limits specified in paragraphs (c)(1) and (c)(2)(C).

(2) All emission determinations shall be made in the as-found operating condition, except no compliance determination shall be established during unit start up, shutdown, or under breakdown conditions. Start up or shutdown intervals shall not last longer than is necessary to reach stable temperatures. In no case shall the start up or shutdown interval last longer than six hours or the time specified in the permit to operate, whichever is less. Start-ups and shutdowns shall not last longer than is necessary to reach stable conditions.

(3) All parts per million emission limits specified in paragraph (c)(1) are referenced at 3 percent volume stack-gas oxygen on a dry basis averaged over a period of 15 consecutive minutes.

(4) Compliance with the NO_x and CO emission requirements of paragraph (c)(1) and the stack-gas oxygen concentration requirement of paragraph

(c)(2)(A) shall be determined according to procedures in District Source Test Method 100.1 - Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling (March 1989), or Method 7.1 - Determination of Nitrogen Oxide Emissions from Stationary Sources (March 1989) and Method 10.1 - Carbon Monoxide and Carbon Dioxide by Gas Chromatograph/Non-Dispersive Infrared Detector (GC/NDIR) - Oxygen by Gas Chromatograph-Thermal Conductivity (GC/TCD) (March 1989), or any other test method determined to be equivalent and approved before the test in writing by the Executive Officers of the District and the California Air Resources Board and the Regional Administrator of the United States Environmental Protection Agency, Region IX. Records of all source tests shall be maintained for a period of two years and shall be made available to District personnel upon request. Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of this rule.

(5) For any owner or operator who chooses the pounds of NO_X per million Btu of heat input compliance option of paragraph (c)(1), NO_X emissions in pounds per million Btu of heat input shall be calculated using the procedures in 40 CFR Part 60, Appendix A, Method 19, Sections 2 and 3.

(e) Compliance Schedule

The owner or operator of units subject to this rule shall meet the following increments of progress:

(1) For owners or operators of units subject to paragraph (c)(1) shall:

(A) By January 1, 1993, submit required applications for permits to construct and operate, and

(B) By July 1, 1994, demonstrate compliance with paragraph (c)(1).

(2) For owners or operators of units subject to paragraph (c)(2) shall:

(A) By January 1, 1993, submit a plan pursuant to paragraph (c)(3), and

(B) By December 31, 1993, demonstrate compliance with paragraph (c)(2).

(f) Exemption

The provisions of paragraph (c)(1) shall not apply provided the owner or operator:

(1) Installs by January 1, 1992, or at the time the permit to construct for the unit is issued, a non-resettable, totalizing fuel meter for each fuel that demonstrates that the unit(s) operate with an annual heat input at or below 18,000 therms per calendar year; and

(2) Has available for inspection by the Executive Officer by February 1 of each year, records listing cumulative annual usage of each fuel for the preceding calendar year. Records shall be maintained and made accessible to the Executive Officer or authorized District representative for a period of two years; and

(3) Demonstrates compliance with the requirements specified in subparagraphs (c)(2)(A) or (c)(2)(B), and (c)(3).

(g) Loss of Exemption

If any unit subject to a compliance plan submitted pursuant to paragraph (c)(3) exceeds 18,000 therms of annual heat input in any calendar year after 1992, the owners or operators shall:

(1) Within 4 months after the end of the calendar year during which the unit exceeded 18,000 therms of annual heat input, submit required applications for permits to construct and operate; and

(2) Within 18 months after the end of the calendar year during which the unit exceeded 18,000 therms of annual heat input, demonstrate and maintain compliance with paragraph (c)(1) for the life of the unit; and

(3) Maintain compliance with requirements of paragraph (c)(2) until compliance with paragraph (c)(1).

ATTACHMENT 1

A. Equipment Tuning Procedure[1] for Forced-Draft Boilers, Steam Generators, and Process Heaters

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant regulations and requirements.

1. Operate the unit at the firing rate most typical of normal operation. If the unit experiences significant load variations during normal operation, operate it at its average firing rate.
2. At this firing rate, record stack gas temperature, oxygen concentration, and CO concentration (for gaseous fuels) or smoke-spot number[2] (for liquid fuels), and observe flame conditions after unit operation stabilizes at the firing rate selected. If the excess oxygen in the stack gas is at the lower end of the range of typical minimum values[3], and if CO emissions are low and there is not smoke, the unit is probably operating at near optimum efficiency - at this particular firing rate.
3. Increase combustion air flow to the furnace until stack gas oxygen levels increase by one to two percent over the level measured in Step 2. As in Step 2, record the stack gas temperature, CO concentration (for gaseous fuels) or smoke-spot number (for liquid fuels), and observe flame conditions for these higher oxygen levels after boiler operation stabilizes.

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[1] This tuning procedure is based on a tune-up procedure developed by KVB, Inc. for the United States EPA.

[2] The smoke-spot number can be determined with ASTM Test Method D-2156 or with the Bacharach method. ASTM Test Method D-2156 is included in a tuneup kit that can be purchased from the Bacharach Company.

[3] Typical minimum oxygen levels for boilers at high firing rates are:

1. For natural gas: 0.5% - 3%
2. For liquid fuels: 2% - 4%

ATTACHMENT 1 (Cont.)

However, complete the remaining portion of this procedure to determine whether still lower oxygen levels are practical.

4. Decrease combustion air flow until the stack gas oxygen concentration is at the level measured in Step 2. From this level gradually reduce the combustion air flow, in small increments. After each increment, record the stack gas temperature, oxygen concentration, CO concentration (for gaseous fuels) and smoke-spot number (for liquid fuels). Also observe the flame and record any changes in its condition.

5. Continue to reduce combustion air flow stepwise, until one of these limits is reached:
   a. Unacceptable flame conditions - such as flame impingement on furnace walls or burner parts, excessive flame carryover, or flame instability.
   b. Stack gas CO concentrations greater than 400 ppm.
   c. Smoking at the stack.
   d. Equipment-related limitations - such as low windbox/furnace pressure differential, built in air-flow limits, etc.

6. Develop an O_2/CO curve (for gaseous fuels) or O_2/smoke curve (for liquid fuels) similar to those shown in Figures 1 and 2 using the excess oxygen and CO or smoke-spot number data obtained at each combustion air flow setting.

7. From the curves prepared in Step 6, find the stack gas oxygen levels where the CO emissions or smoke-spot number equal the following values:

Fuel	Measurement	Value
Gaseous	CO Emissions	400 ppm
#1 and #2 oils	smoke-spot number	number 1
#4 oil	smoke-spot number	number 2
#5 oil	smoke-spot number	number 3
Other oils	smoke-spot number	number 4

The above conditions are referred to as the CO or smoke thresholds, or as the minimum excess oxygen level.

Compare this minimum value of excess oxygen to the expected value provided by the combustion unit manufacturer. If the minimum level found is substantially higher than the value provided by the combustion unit manufacturer, burner

ATTACHMENT 1 (Cont.)

adjustments can probably be made to improve fuel and air mixing, thereby allowing operation with less air.

8. Add 0.5 to 2.0 percent of the minimum excess oxygen level found in Step 7 and reset burner controls to operate automatically at this higher stack gas oxygen level. This margin above the minimum oxygen level accounts for fuel variations, variations in atmospheric conditions, load changes, and nonrepeatability or play in automatic controls.

9. If the load of the combustion unit varies significantly during normal operation, repeat Steps 1-8 for firing rates that represent the upper and lower limits of the range of the load. Because control adjustments at one firing rate may affect conditions at other firing rates, it may not be possible to establish the optimum excess oxygen level at all firing rates. If this is the case, choose the burner control settings that give best performance over the range of firing rates. If one firing rate predominates, settings should optimize conditions at that rate.

10. Verify that the new settings can accommodate the sudden load changes that may occur in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack. If any of the conditions in Step 5 result, reset the combustion controls to provide a slightly higher level of excess oxygen at the affected firing rates. Next, verify these new settings in a similar fashion. Then make sure that the final control settings are recorded at steady-state operating conditions for future reference.

11. When the above checks and adjustments have been made, record data and attach combustion analysis data to boiler, steam generator, or heater records indicating name and signature of person, title, and date the tuneup was performed.

ATTACHMENT 1 (Cont.)

B. Equipment Tuning Procedure for Natural Draft-Fired Boilers, Steam Generators, and Process Heaters.

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant codes, regulations, and equipment manufacturers specifications and operating manuals.

Should a different tuning procedure be used, a copy of this procedure should be kept with the unit records for two years and made available to the District personnel on request.

1. PRELIMINARY ANALYSIS

a. CHECK THE OPERATING PRESSURE OR TEMPERATURE.

Operate the boiler, steam generator, or heater at the lowest acceptable pressure or temperature that will satisfy the load demand. This will minimize heat and radiation losses. Determine the pressure or temperature that will be used as a basis for comparative combustion analysis before and after tuneup.

b. CHECK OPERATING HOURS.

Plan the workload so that the boiler, steam generator, or process heater operates only the minimum hours and days necessary to perform the work required. Fewer operating hours will reduce fuel use and emissions. For units requiring a tuneup to comply with the rule, a totalizing non-resettable fuel meter will be required for each fuel used and for each boiler, steam generator, and heater to prove fuel consumption is less than the heat input limit in therms per year specified in the rule.

c. CHECK AIR SUPPLY.

Sufficient fresh air supply is essential to ensure optimum combustion and the area of air supply openings must be in compliance with applicable

ATTACHMENT 1 (Cont.)

codes and regulations. Air openings must be kept wide open when the burner is firing and clear from restriction to flow.

d. CHECK VENT.

Proper venting is essential to assure efficient combustion. Insufficient draft or overdraft promotes hazards and inefficient burning. Check to be sure that vent is in good condition, sized properly and with no obstructions.

e. COMBUSTION ANALYSIS.

Perform an "as is" combustion analysis (CO, O_2, etc.) with a warmed up unit at high and low fire, if possible. In addition to data obtained from combustion analysis, also record the following:

i. Inlet fuel pressure at burner (at high & low fire)

ii. Draft above draft hood or barometric damper

1) Draft hood: high, medium, and low

2) Barometric Damper: high, medium, and low

iii. Steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the boiler, steam generator, or process heater.

iv. Unit rate if meter is available.

With above conditions recorded, make the following checks and corrective actions as necessary:

2. CHECKS & CORRECTIONS

a. CHECK BURNER CONDITION.

Dirty burners or burner orifices will cause boiler, steam generator, or process heater output rate and thermal efficiency to decrease. Clean burners and burner orifices thoroughly. Also, ensure that fuel filters and moisture traps are in place, clean, and operating properly, to prevent plugging of gas orifices. Confirm proper location and orientation of burner diffuser spuds, gas canes, etc. Look for any burned-off or missing burner parts, and replace as needed.

ATTACHMENT 1 (Cont.)

b. CHECK FOR CLEAN BOILER, STEAM GENERATOR, OR PROCESS HEATER TUBES & HEAT TRANSFER SURFACES.
External and internal build-up of sediment and scale on the heating surfaces creates an insulating effect that quickly reduces unit efficiency. Excessive fuel cost will result if the unit is not kept clean. Clean tube surfaces, remove scale and soot, assure proper process fluid flow and flue gas flow.

c. CHECK WATER TREATMENT & BLOWDOWN PROGRAM.
Soft water and the proper water or process fluid treatment must be uniformly used to minimize scale and corrosion. Timely flushing and periodic blowdown must be employed to eliminate sediment and scale build-up on a boiler, steam generator or process heater.

d. CHECK FOR STEAM, HOT WATER OR PROCESS FLUID LEAKS
Repair all leaks immediately since even small high-pressure leaks quickly lead to considerable fuel, water and steam losses. Be sure there are no leaks through the blow-off, drains, safety valve, by-pass lines or at the feed pump, if used.

3. SAFETY CHECKS

a. Test primary and secondary low water level controls.

b. Check operating and limit pressure and temperature controls.

c. Check pilot safety shut off operation.

d. Check safety valve pressure and capacity to meet boiler, steam generator or process heater requirements.

e. Check limit safety control and spill switch.

4. ADJUSTMENTS

While taking combustion readings with a warmed up boiler, steam generator, or process heater at high fire perform checks and adjustments as follows:

a. Adjust unit to fire at rate; record fuel manifold pressure.

b. Adjust draft and/or fuel pressure to obtain acceptable, clean combustion at both high, medium and low fire. Carbon Monoxide (CO) value should always be below 400 parts per million (PPM) at 3% 0_2. If CO is high make necessary adjustments.

ATTACHMENT 1 (Cont.)

Check to ensure boiler, steam generator, or process heater light offs are smooth and safe. A reduced fuel pressure test at both high and low fire should be conducted in accordance with the manufacturers instructions and maintenance manuals.

c. Check and adjust operation of modulation controller. Ensure proper, efficient and clean combustion through range of firing rates.

When above adjustments and corrections have been made, record all data.

5. FINAL TEST

Perform a final combustion analysis with a warmed up boiler, steam generator, or process heater at high, medium and low fire, whenever possible. In addition to data from combustion analysis, also check and record:

a. Fuel pressure at burner (High, Medium, and Low).

b. Draft above draft hood or barometric damper (High, Medium and Low).

c. Steam pressure or water temperature entering and leaving boiler, steam generator, or process heater.

d. Unit rate if meter is available.

When the above checks and adjustments have been made, record data and attach combustion analysis data to boiler, steam generator, or process heater records indicating name and signature of person, title, company name, company address and date the tuneup was performed.

10/16/85

South Coast

(Adopted April 5, 1985)

RULE 1150.1. CONTROL OF GASEOUS EMISSIONS FROM ACTIVE LANDFILLS

(a) Summary

The purpose of this rule is to reduce gaseous emissions from active landfills to prevent public nuisance and possible detriment to public health caused by exposure to such emissions. The rule requires in an active landfill, a landfill gas control system approved by the Executive Officer.

The rule requires installation of the landfill gas control system sufficient to draw landfill gas toward the gas collection devices without overdraw that would adversely affect the system. Sample probes shall be installed at the perimeter of the landfill to monitor offsite migration. Sufficient landfill gas shall be collected to prevent the average concentration of total organic compounds over a certain area on the surface of the landfill from exceeding 50 ppm. The concentration of organic compounds and any toxic air contaminants shall be determined when the landfill gas control system commences operation and periodically thereafter. Air samples at the perimeter of the landfill shall be analyzed to determine offsite migration. Results of such determination shall be reported to the Executive Officer on a quarterly basis. The maximum concentration of organic compounds as methane, measured at any point on the surface of the landfill, shall not exceed 500 ppm.

The rule requires determination of efficiencies of the disposal system of the collected landfill gas. Such efficiencies shall be measured when the landfill gas control system commences operation and periodically thereafter. Mitigation measures shall be implemented as necessary during

installation of the system to ensure no public nuisance. Mitigation measures and all methods of measurements and evaluations are to be approved by the Executive Officer.

A compliance schedule is provided as a guide to achieve compliance by January 1, 1989. The owner/operator shall apply for a permit to construct and a permit to operate any expansion or modification to the landfill gas control system not covered by the approved plan, prior to beginning the expansion or modification.

All active landfills, except those described in paragraph (g) of this rule, require a gas control system. Any exemption from the requirement shall be reviewed periodically.

(b) Definitions

For purposes of this rule, the following definitions shall apply:

(1) Landfill is a site used for the final land disposal of waste in accordance with applicable waste management plans and policies, in which refuse is spread, compacted, and covered with earth, and where the organic portion of such waste is subject to natural processes of aerobic and anaerobic decomposition.

(2) An Active Landfill is a landfill that is currently receiving or has been receiving waste on or after January 1, 1982. This includes all portions of the landfill where waste is being deposited or has been deposited.

(3) Landfill Gas is any untreated, raw gas derived through a natural process from the decomposition of organic waste deposited in a landfill or from the evolution of volatile species in the waste.

(4) Toxic Air Contaminant is an air contaminant which has been identified as a hazardous air pollutant pursuant to Section 7412 of Title 42 of the United States Code; or has been identified as a toxic air contaminant by the Air Resources Board pursuant to Health and Safety Code Section 39655 through 39662, or which may cause or contribute to an increase in mortality or an increase in serious illness, or potential hazard to human health.

(5) Perimeter is the outer boundary of the entire waste disposal property.

(c) Requirements

The owner/operator of an active landfill shall:

(1) Install and maintain in good operating condition a landfill gas control system approved by the Executive Officer, which is designed to be of sufficient capacity to draw landfill gas toward the gas collection devices without overdraw that could cause excessive aerobic decomposition, or fires, or damaging effect on landfill gas disposal systems.

(2) Install the landfill gas control system according to a design and in a manner approved by the Executive Officer. Such system shall be extended as necessary to prevent offsite migration. The landfill gas control system shall provide for gas recovery accordingly as the landfill is expanded in order to maintain compliance with this rule.

(3) Install sampling probes at the perimeter of the landfill to determine whether offsite migration exists. A plan for such installation shall be submitted for approval together with the compliance plan.

(4) Analyze the following samples to determine the concentrations of total organic compounds and any toxic air contaminants, following installation of the landfill gas control system and each month or greater interval thereafter, as specified by the Executive Officer, to assure continued compliance. The sampling plan and methods of analysis shall be approved by the Executive Officer prior to sampling and modified thereafter as necessary. The results of the analyses shall be reported to the Executive Officer on a quarterly basis in the form and manner prescribed by him. Such report shall be due within 45 days of the last day of the reporting period,

(A) Integrated air sample on the surface of the landfill, over an area determined to be representative by the Executive Officer on a site by site basis.

(B) Landfill gas collected by the gas control system.

(C) Landfill gas from the sampling probes specified in subparagraph (c)(3).

(D) Air at the perimeter of the landfill.

(5) Collect sufficient landfill gas with the landfill gas control system to prevent the concentration of total organic compounds in the sample specified in subparagraph (c)(4)(A) from exceeding 50 ppm.

(6) Not allow the maximum concentration of organic compounds from exceeding 500 ppm measured as methane at any point on the surface of the landfill.

(7) Dispose all landfill gas collected by any of the following methods which have been demonstrated to the satisfaction of the Executive Officer to achieve the maximum possible efficiency:

(A) Combustion.

(B) Gas treatment and subsequent sale.

(C) Sale and processing offsite.

(D) Other equivalent methods.

(8) Evaluate the efficiency of the combustion equipment or the gas treating facility as the system commences operation and annually thereafter. Such evaluation shall be made in a manner approved by the Executive Officer, recorded and maintained for at least two (2) years, and available to the District for inspection.

(9) Take approved mitigation measures during installation of the landfill gas control system to prevent public nuisance.

(10) Not recommence operations of a previously closed landfill, or commence operations of a newly established landfill, without an approved plan to comply with the requirements of this rule.

(11) Submit to the Executive Officer a plan to comply with the requirements of this rule. Such plan shall include but not be limited to:

(A) The means to meet the compliance schedule.

(B) The installation procedures and location of sampling probes.

(C) Sampling and test methods.

(D) Mitigation measures to be taken during installation of landfill gas control system.

(E) Mitigation measures to be taken when excessive concentrations are determined.

(F) Determination of efficiency specified in subsection (c)(8).

If after the installation of the landfill gas control system in accordance with the approved plan and the provisions of the permit to construct, the Executive Officer determines that in spite of all

reasonable efforts by the owner/operator, the limits can not be attained, he may specify other attainable limits.

(d) Compliance Schedule

(1) The owner/operator of an active landfill shall meet the following compliance schedule.

(A) On or before October 1, 1985.

(i) Comply with the requirements in subsection (c)(6).

(ii) Submit a compliance plan specified in subsection (c)(11).

(B) Increments of progress:

(i) On or before April 1, 1986.

File an application with the District for a permit to construct and permit to operate a landfill gas control system.

(ii) Within 6 months of the permit approval, award contract(s) for installation of the landfill gas control system.

(iii) Within 12 months of the permit approval, begin installation.

(iv) Within 24 months of the permit approval, complete installation.

(v) January 1, 1989.

Attain final compliance with this rule.

(2) The owner/operator of an active landfill shall apply for a permit to construct and permit to operate any expansion or modification to the landfill gas control system prior to the installation of such expansion or modification, unless said expansion on modification is

covered by the plan previously submitted and approved by the Executive Officer.

(e) Fees

The owner/operator of an active landfill shall be assessed applicable filing and evaluation fees pursuant to Rules 301, 301.1, 304, and 306.

(f) Applicability of Other Rules

Compliance with the provisions of this rule does not exempt a person from complying with the requirements of Section 41700 of the California Health and Safety Code, Rules 401 (Visible Emissions), 402 (Nuisance), 403 (Fugitive Dust), 1150 (Excavation of Landfill Sites) of the District's Rules and Regulations, or any other applicable law, statute, code, ordinance, rule, or regulation.

(g) Exemptions

A landfill may be exempt from all or any portion of the requirements of this rule if the owner/operator can demonstrate to the satisfaction of the Executive Officer that due to the size, nature and age of the refuse, projected gas generation, or remoteness of the facility, there will be no adverse impact on air quality.

Such exemption shall be reviewed periodically by the District, to consider the development of the operations and gaseous emissions, and the impact of such development on the public. Depending upon the results of the review, the Executive Officer may extend or terminate the exemption.

(h) Severability of Portions of the Rule

If any portion of this rule is found to be invalid or unenforceable, such finding shall have no effect on the validity and enforceability of the

remaining portions of the rule, which are severable and shall continue to be in full force and effect.

(i) Summary Paragraph Intended Only as a Guide

Paragraph (a) of this rule is intended only to summarize and give guidance in the interpretation. The provisions of paragraph (a) are not separate or distinct requirements, and if found to conflict with a provision of any other paragraph of this rule, shall yield to the provision in the other paragraph.

2/10/86

Adopted October 18, 1985

RULE 1150.2. CONTROL OF GASEOUS EMISSIONS FROM INACTIVE LANDFILLS

(a) Summary

The purpose of this rule is to reduce gaseous emissions from inactive landfills to prevent public nuisance and possible detriment to public health caused by exposure to such emissions. Based on the established criteria and from the available information, the District will determine whether the gas generated from the landfill needs to be collected. If so, the owner shall install a landfill gas control system approved by the Executive Officer.

The rule requires installation of the landfill gas control system sufficient to draw landfill gas toward the gas collection devices without overdraw that would adversely affect the system. Sample probes shall be installed at the perimeter of the landfill to monitor offsite migration. Sufficient landfill gas shall be collected to prevent the average concentration of total organic compounds over a certain area on the surface of the landfill from exceeding 50 ppm. The concentration of total organic compounds, and any toxic air contaminants shall be determined when the landfill gas control system commences operation and periodically thereafter. Air samples at the perimeter of the landfill shall be analyzed to determine offsite migration. Results from such determination shall be reported to the Executive Officer. The maximum concentration of organic compounds as methane, measured at any point on the surface of the landfill, shall not exceed 500 ppm.

The rule also requires the proper disposal of collected gas. The efficiency of the gas disposal system shall be determined when the landfill gas control system commences operation and periodically thereafter. Mitigation measures shall be implemented as necessary during installation of the system to prevent public nuisance. Mitigation measures and methods of determination shall be approved by the Executive Officer.

(b) Definitions

For purposes of this rule, the following definitions shall apply:

(1) An Inactive Landfill is a site where refuse had been disposed of on or before January 1, 1982, and no more subsequent refuse disposal activity had been conducted within the site.

(2) Landfill Gas is any untreated raw gas derived through a natural process from the decomposition of organic waste deposited in a landfill or the evolution of volatile species in the waste.

(3) Toxic Air Contaminant is an air contaminant which has been identified as a hazardous air pollutant pursuant to Section 7412 of Title 42 of the United States Code; or has been identified as a toxic air contaminant by the Air Resources Board pursuant to Health and Safety Code Section 39655 through 39662; or which may cause or contribute to an increase in mortality or an increase in serious illness, or potential hazard to human health.

(4) Perimeter is the outer boundary of the entire waste disposal property.

(5) Owner is a person whose name appears in the title of the property.

(c) Requirements

(1) At any time after the adoption of this rule, but not later than 30 days after the receipt of a request, the owner shall submit to the Executive Officer preliminary information necessary to determine if further screening of the inactive landfill is necessary.

(2) Within 90 days of the date of a second request, the owner of an inactive landfill shall submit to the Executive Officer additional information, as may be necessary to determine whether or not landfill gas control systems and/or gas monitoring systems are required to be installed in the landfill.

(3) If the owner needs additional time to provide the information required in subparagraphs (c)(1) and (c)(2), he/she shall request an extension in writing from the Executive Officer, indicating the amount of time that is adequate and reasonable to obtain such information. Such request for extension shall be submitted to the Executive Officer within 30 days of the receipt of the Executive Officer's requests as specified in subparagraph (c)(1) and (c)(2).

(4) The Executive Officer shall present to the Board the screening criteria used to determine the need for controls under subsection (c)(5). No notifications will be made for controls prior to approval of these criteria by the Board.

[(4)](5) Upon notification by the Executive Officer that landfill gas control systems and/or gas monitoring systems are required, the owner of an inactive landfill shall:

(A) Install and maintain in good operating condition a landfill gas control system according to the design approved by the Executive Officer, which is sufficient to draw landfill gas toward the gas collection devices without overdraw that could

cause excessive aerobic decomposition, fires, or damaging effect on the gas disposal system. Such system shall be extended as necessary to draw landfill gas to prevent off-site migration.

(B) Install and maintain sampling probes at the perimeter of the landfill to determine if off-site migration exists. A plan for such installation shall be submitted to the Executive Officer for approval as part of the compliance plan.

(C) Analyze the samples identified below for the concentrations of total organic compounds and any toxic air contaminants following installation of the landfill gas control system, and once a month or at greater intervals thereafter, as required by the Executive Officer. The sampling plan and methods of collection and analysis shall be preapproved by the Executive Officer. The results of such analysis shall be reported to the Executive Officer as required and in the form and manner prescribed by him.

(i) Integrated air sample on the surface of the landfill over an area determined by the Executive Officer to be representative on a site-by-site basis.

(ii) Landfill gas collected by the gas control system.

(iii) Landfill gas from the sampling probes specified in subparagraph (c)(5)(B).

(iv) Air at the perimeter of the landfill.

(D) Collect sufficient landfill gas with the landfill gas control system to prevent the concentration of total organic compounds in the sample specified in subparagraph (c)(5)(C)(i) from exceeding 50 ppm.

(E) Not allow the maximum concentration of total organic compounds from exceeding 500 ppm measured as methane at any point on the surface of the landfill.

(F) Dispose of ROG and toxic compounds in the landfill gas by any of the following processes which have been demonstrated to the satisfaction of the Executive Officer to achieve the maximum possible efficiency:

(i) Combustion.

(ii) Gas treatment and subsequent sale.

(iii) Sale and processing offsite.

(iv) Other equivalent methods.

(G) Evaluate the efficiency of the combustion or the gas treating equipment when the system commences operation and annually thereafter. The evaluation shall be made in a manner approved by the Executive Officer, recorded, and maintained for at least two (2) years, and be available to the District for inspection.

(H) Take approved mitigation measures during installation of the landfill gas control system to prevent public nuisance.

(I) Submit to the Executive Officer a plan to comply with the requirements of this rule. Such plan shall include but not be limited to:

(i) The means to meet the compliance schedule.

(ii) The installation procedures and location of sampling probes.

(iii) Sampling and test methods.

(iv) Mitigation measures to be taken during the installation of landfill gas control system.

(v) Mitigation measures to be taken when excessive concentrations are determined.

If after the installation of the landfill gas control system in accordance with the approved plan and the provisions of the permit to construct, the Executive Officer determines that in spite of all reasonable efforts by the owner, the limits cannot be attained, he may specify other attainable limits.

(d) Compliance Schedule

The owner of an inactive landfill shall meet the following compliance schedule:

(1) From the date of notification from the Executive Officer that a landfill gas control system is required:

(A) Within 6 months submit a compliance plan specified in subparagraph (c)(5)(I).

(B) Within 12 months file an application with the District for a permit to construct and permit to operate a landfill gas control system.

(2) From the date the permit to construct is issued:

(A) Within 6 months, award contract(s) for installation of the landfill gas control system.

(B) Within 12 months, begin installation.

(C) Within 24 months, complete installation.

(D) Within 27 months, attain compliance with this rule.

(e) Fees

The owner of an inactive landfill shall be assessed applicable filing and evaluation fees pursuant to Rules 301, 301.1, 304, and 306.

(f) Applicability of Other Rules

Compliance with the provisions of this rule does not exempt a person from complying with the requirements of Section 41700 of the California Health and Safety Code, Rules 401 (Visible Emissions), 402 (Nuisance), 403 (Fugitive Dust), 1150 (Excavation of Landfill Sites) of the District's Rules and Regulations, or any other applicable law, statute, code, ordinance, rule, or regulation.

(g) Exemptions

A landfill may be exempt from all or any portion of the requirements of this rule if the owner can demonstrate to the satisfaction of the Executive Officer that due to the size, nature and age of the refuse, projected gas generation, or remoteness of the facility, there will be no adverse impact on air quality. Such exemption may be determined upon evaluation of the information obtained under the provisions of subparagraph (c)(1) or (c)(2) of this rule in accordance with the established screening criteria.

The exemption may be reviewed periodically by the Executive Officer to consider the development of the landfill surface and/or nearby property and the impact of such development on the public. Depending upon the results of the review, the Executive Officer may extend or terminate the exemption.

(h) Summary Paragraph Intended Only as a Guide

Paragraph (a) of this rule is intended only to summarize and give guidance in the interpretation and, if found to be in conflict with a provision of any other paragraph of this rule, shall yield to the provision in the other paragraph.

(**Adopted:** 07/08/88; **Amended**: 05/05/89; **Amended**: 03/02/90; **Amended**: 06/28/90; **Amended**: 11/02/90; **Amended**: 12/07/90; **Amended**: 08/02/91; **Amended**: 09/06/91; **Amended**: 12/09/94; **Amended**: 03/08/96; **Amended**: 06/13/97; **Amended**: 07/20/99; **Amended**: 06/19/12)

Rule 1151
Motor Vehicle and Mobile Equipment Coating Operations

(A) General

(1) Purpose

(a) The purpose of this rule is to reduce emissions of Volatile Organic Compounds (VOCs), from Coatings and solvents associated with the Refinishing of Motor Vehicles, Mobile Equipment and their Associated Parts and Components.

(2) Applicability

(a) This rule is applicable to:

(i) Any Person who uses, applies, or, solicits the use or application of any Automotive Coating or associated solvent within the District.
(ii) Any Person who supplies, sells, offers for sale, manufactures, or distributes any Automotive Coating or associated solvent for use within the District.

(b) This rule does not apply to:

(i) Any Coating applied to Motor Vehicles or Mobile Equipment, or their Associated Parts and Components, during manufacture on an Assembly Line.
(ii) Any Automotive Coating or associated solvent that is offered for sale, sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.
(iii) Any Stencil Coating Product.
(iv) Any Aerosol Coating Products that are in compliance with regulations and requirements adopted by the California Air Resources Board (CCR, Title 17, Subchapter 8.5, Section 94522).
(v) Any Automotive Coating that is sold, supplied, or offered for sale in one-half (0.5) fluid ounce or smaller containers intended to be used by the general public to repair tiny surface imperfections.

(B) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) "Adhesion Promoter" - A Coating which is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent Coatings, and on which, a subsequent Coating is applied.

(2) "Aerosol Coating Product" - A pressurized Coating product containing pigments or resins that dispenses 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.

(3) "Air Pollution Control Officer (APCO)" - The person appointed by the Air Pollution Control Board and assigned full time to manage and direct the business and operations of the district. The Air Pollution Control Officer is also the District Director, and is that person described for State purposes as the Air Pollution Control Officer.

(4) "Alternative Emission Control Plan" - A plan which allows a source to demonstrate an alternative method of rule compliance.

(5) "Anti-Glare Safety Coating" - a Coating formulated to eliminate glare for safety purposes on interior surfaces of a vehicle and which shows a reflectance of 25 or less on a 60° gloss meter.

(6) "Assembly Line" - An arrangement of industrial equipment and workers in which the product passes from one specialized operation to another until complete by either automatic or manual means.

(7) "Associated Parts and Components" - Structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of Motor Vehicles or Mobile Equipment that are designed to be part of Motor Vehicles or Mobile Equipment but which are not attached to Motor Vehicles or Mobile Equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element. The Associated Parts and Components definition does not include circuit boards.

(8) "ASTM" - American Society for Testing and Materials

(9) "Automotive Coating" - Any coating or Automotive Coating Component, used or recommended for use, in Motor Vehicle or Mobile Equipment Refinishing, service, maintenance, repair, restoration, or modification, except metal plating activities. Any reference to automotive Refinishing or Automotive Coating made by a Person, on the container, or in product literature constitutes a recommendation for use in Motor Vehicle or Mobile Equipment Refinishing.

(10) "Automotive Coating Component" - Any portion of a coating, including, but not limited to, a Reducer or thinner, toner, hardener, and Additive, which is recommended by any person to distributors or end-users, for use in an Automotive Coating, or which is supplied for or used in an Automotive Coating. The raw materials used to produce the components are not considered Automotive Coating Components.

(11) "Automotive Refinishing Facility" - Any shop, business, location, or parcel of land where Motor Vehicles or Mobile Equipment or their Associated Parts and Components are coated, including autobody collision repair shops. Automotive Refinishing Facility does not include the original equipment manufacturing plant where the Motor Vehicle or Mobile Equipment is completely assembled.

(12) "Bright Metal Trim Repair Coating" - A Coating applied directly to chrome-plated metal surfaces for the purpose of appearance.

(13) "Bus" - Any Motor Vehicle having a manufacturer's gross vehicle weight of more than 8600 pounds and which is designed primarily for the transportation of persons, and having a design capacity of over 12 persons.

(14) "CARB" - California Air Resources Board

(15) "CFR" - Code of Federal Regulations

(16) "Cleaning Operations" - The removal of loosely held uncured adhesives, inks, Coatings, or contaminants, including, but not limited to, dirt, soil, or grease, from Motor Vehicles, Mobile Equipment, Associated Parts and Components, substrates, parts, products, tools, machinery, equipment, or general work areas.

(17) "Clear Coating" - Any coating that contains no pigments and is labeled and formulated for application over a Color Coating or Clear Coating.

(18) "Coating" - A material which is applied to a surface and which forms a film in order to beautify and/or protect such surface.

(19) "Coating Categories" - The table below shows Coating Categories prior to the 05/01/2013 compliance deadline, and the corresponding Coating Categories after the 05/01/2013 compliance deadline:

Comparison of Coating Categories	
Coating Categories Prior to 05/01/2013	**Coating Categories 05/01/13 and After**
Adhesion Promoter	Adhesion Promoter
Anti-glare Safety Coating	Clear Coating, Color Coating, or Single-Stage Coating
Bright Metal Trim Repair Coating	Any Other Coating Type
Camouflage	Color Coating
Elastomeric Materials	Primer, Color Coating, Clear Coating, Single-stage Coating, or Underbody Coating
General Topcoat	Single-Stage Coating
Gloss Flatteners (aka Low-Gloss Coatings)	Clear Coating
Heat Resistant	Primer, Color Coating, Clear Coating, or Single-stage Coating
Impact Resistant Coating	Single-Stage Coating, Clear Coating, Underbody Coating, or Truck Bed Liner Coating
Jambing	Clear Coating
Metallic/Iridescent Topcoat	Single-Stage Coating
Multi-Color Coatings	Multi-Color Coating
Multi-Color Multi-Stage	Multi-Color Coating
Multi-Color Stage System	Color Coating & Clear Coating
Multi-Color Topcoat	Multi-Color Coating
Precoat	Primer
Pretreatment Wash Primer	Pretreatment Coating
Primer	Primer
Primer Sealer	Primer Sealer
Primer Surfacer	Primer
Rubberized Asphaltic Underbody	Underbody Coating
Single-Stage Metallic/Iridescent Coating	Single-Stage Coating
Single-Stage Nonmetallic/Noniridescent Topcoat	Single-Stage Coating
Solid Color Topcoat	Single-Stage Coating
Specialty Coatings	This generic category has been eliminated an replaced with specific categories for the various coatings previous grouped together
Temporary Protective Coating	Temporary Protective Coating
Topcoats	Single-Stage Coating

Uniform Finish Blenders	Uniform Finish Coating
Water Hold-Out Coating	Primer
Weld-Thru Coatings	Primer

(20) "Color Coating" - Any pigmented Coating, excluding Adhesion Promoters, Primers, and Multi-color Coatings, that requires a subsequent Clear Coating and which is applied over a Primer, Adhesion Promoter, or Color Coating. Color Coatings include metallic/iridescent Color Coatings.

(21) "Elastomeric Materials" - Coatings which are specifically formulated and applied over coated or uncoated flexible plastic substrates for the purpose of adhesion.

(22) "Electrostatic Spray Application" - A method of applying Coatings whereby the atomized Coating droplets are charged and subsequently deposited on the substrate by electrostatic attraction.

(23) "Emission Control System" - Any combination of capture systems and control devices used to reduce VOC emissions from Automotive Coating operations.

(24) "Exempt Compounds" - Those compounds listed in 40 CFR 51.100(s).

(25) "Finish" - The Coating of incomplete vehicles, their parts and components, or Mobile Equipment for which the original Coating was not applied from an Original Equipment Manufacturer (OEM) plant Coating Assembly Line.

(26) "Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds (VOC Content)" - The weight of VOC per combined volume of VOC and Coating solids and shall be calculated by the following equation:

$$G_{VOC\,/\,LoC} = \frac{W_S - W_W - W_{ES}}{V_M - V_W - V_{ES}}$$

Where:

$G_{VOC/LoC}$ = Grams VOC/L of Coating Less Water and Exempt
W_S = weight of volatile compounds in grams
W_W = weight of water in grams
W_{ES} = weight of Exempt Compounds in grams
V_M = volume of material in liters
V_W = volume of water in liters
V_{ES} = volume of Exempt Compounds in liters

(27) "Grams of VOC per Liter of Material" - The weight of VOC per volume of material as calculated by the following equation:

$$G_{VOC/LoM} = \frac{W_S - W_W - W_{ES}}{V_M}$$

Where:

$G_{VOC/LoM}$	=	Grams VOC/L of Material
W_S	=	weight of volatile compounds in grams
W_W	=	weight of water in grams
W_{ES}	=	weight of exempt compounds in grams
V_M	=	volume of material in liters

(28) "Group II Exempt Compounds" - Compounds that are restricted because they are either toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. These compounds are listed as follows:

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)
cyclic, branched, or linear, completely methylated siloxanes
tetrachloroethylene (perchloroethylene)

(29) "High-Volume, Low-Pressure (HVLP) Spray" - Equipment Permanently Labeled as such used to apply Coatings by means of a spray gun which is designed to be operated and which is operated between 0.1 and 10 pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns.

(30) "Impact Resistant Coating" - Any Coating applied to a rocker panel for the purpose of chip resistance to road debris.

(31) "Metallic/Iridescent Color Coating" - Any Coating which contains iridescent particles, composed of either metal as metallic particles or silicon as mica particles, in excess of five (5) grams per liter (0.042 pounds per gallon) as applied, where such particles are visible in the dried film.

(32) "Mobile Equipment" - Any device which may be drawn or is capable of being driven on a Roadway or rails, including but not limited to, trains, railcars, truck bodies, truck trailers, utility bodies, camper shells, mobile cranes, bulldozers, street cleaners, and implements of husbandry or agriculture.

(33) "Motor Vehicle" - a vehicle which is self-propelled, including, but not limited to cars, trucks, Buses, golf carts, vans, Motorcycles, tanks, and armored personnel carriers.

(34) "Motorcycle" - any Motor Vehicle other than a tractor having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground and weighing less than 1500 pounds, except that four wheels may be in contact with the ground when two of the wheels are a functional part of a sidecar.

(35) "Multi-Color Coating" - Any Coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, and hides surface defects on areas of heavy use, and which is applied over a Primer or Adhesion Promoter.

(36) "Multi-Colored Multistage Topcoat System" - A Basecoat/Clearcoat Topcoat System in which the basecoat portion is a Multi-Colored Topcoat.

(37) "Multi-Colored Topcoat" - a Coating which exhibits more than one color when applied, and which is packaged in a single container and applied in a single coat.

(38) "Multistage Topcoat System" - Any Basecoat/Clearcoat Topcoat System or any Three-Stage Topcoat System, manufactured as a system, and used as specified by the manufacturer.

(39) "Passenger Car" - any Motor Vehicle designed primarily for transportation of persons and having a design capacity of 12 persons or less.

(40) "Person" - Shall have the same meaning as defined in the California Health and Safety Code §39047.

(41) "Permanently Labeled" - Permanent labeling is in the form of an engraving or a plate permanently attached to the equipment.

(42) "Pretreatment Coating" - A Coating which contains no more than sixteen (16) percent solids, by weight, and at least one-half (0.5) percent acid, by weight, is used to provide surface etching, and is applied directly to bare metal surfaces to provide corrosion resistance and promote adhesion for subsequent Coatings.

(43) "Primer" - Any Coating which is labeled and formulated for application to a substrate to provide 1) a bond between the substrate and subsequent coats, 2) corrosion resistance, 3) a smooth substrate surface, or 4) resistance to penetration of subsequent coats, and on which a subsequent Coating is applied. Primers may be pigmented.

(44) "Primer Sealer" - Any Coating which is labeled and formulated for application prior to the application of a Color Coating for the purpose of color uniformity, or

to promote the ability of an underlying Coating to resist penetration by the Color Coating.

(45) "Primer Surfacer" - A Coating applied for the purpose of corrosion resistance or adhesion, and which promotes a uniform surface by filling in surface imperfections.

(46) "Reducer" - Any volatile liquid used to reduce the viscosity of the Coating, but not used for Cleaning Operations. This liquid may be solvents, diluents, or both, and may also be referred to as a thinner.

(47) "Refinishing" - Any Coating of Motor Vehicles, their Associated Parts and Components, or Mobile Equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original Coating applied at an Original Equipment Manufacturing (OEM) plant Coating Assembly Line.

(48) "Roadway" - A way or place used for purposes of vehicular travel.

(49) "Rocker Panel" - The panel area of a Motor Vehicle which is no more than ten inches from the bottom of a door, quarter panel or fender.

(50) "Rubberized Asphaltic Underbody Coating" - A Coating applied to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the Motor Vehicle itself, for the purpose of sound deadening or protection.

(51) "Single-Stage Coating" – Any pigmented coating, excluding Primers and Multi-Color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent Coatings.

(52) "Solvent Cleaning Operations" - The removal of loosely held uncured adhesives, uncured inks, uncured Coatings, and contaminants which include, but are not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas. Each distinct method of cleaning in a cleaning process which consists of a series of cleaning methods shall constitute a separate Solvent Cleaning Operation.

(53) "Specialty Coating" - Any of the following Coatings: Adhesion Promoters, Uniform Finish Blenders, Elastomeric Materials, Anti-Glare Safety Coatings, Impact Resistant Coatings, Rubberized Asphaltic Underbody Coatings, Water Hold-Out Coatings, Weld-Thru Coatings, and Bright Metal Trim Repair Coatings.

(54) "Spot Repair" - Repair of an area on a motor vehicle, piece or mobile equipment, or associated parts or components of less than an entire panel.

(56) "Stencil Coating" - An ink or a pigmented Coating which is rolled or brushed onto a template or a stamp in order to add identifying letters, symbols, and/or numbers to Motor Vehicles, Mobile Equipment, or their parts and components.

(57) "Targeted HAP Compounds"- The Hazardous Air Pollutant (HAP) compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd) targeted by 40 CFR 63 Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources.

(58) "Temporary Protective Coatings" - Any Coating which is labeled and formulated for the purpose of temporarily protecting areas form overspray or mechanical damage.

(59) "Topcoat" – Any Coating applied over a Primer, Primer System or an original OEM Finish for the purpose of appearance, identification, or protection.

(60) "Transfer Efficiency" - The ratio of the weight of Coating solids deposited on an object to the total weight of Coating solids used in a Coating application step, expressed as a percentage.

(61) "Truck" - A Motor Vehicle designed, used, or maintained primarily for the transportation of property.

(a) "Large-Sized Truck" - A Truck having a manufacturer's gross vehicle weight rating of more than 8600 pounds.

(b) "Medium-Sized Truck" - A Truck having a manufacturer's gross vehicle weight of 6001 to 8600 pounds.

(c) "Small-Sized Truck" - Any Motor Vehicle having a manufacturer's gross vehicle weight rating at 6000 pounds or less and which is designed primarily for the purposes of transportation of property or is a derivative of such vehicle, or is available with special features enabling on-street or off-highway operation and use.

(62) "Truck Bed Liner Coating" - Any Coating, excluding Clear, Color, Multi-color, and Single-stage Coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.

(63) "Underbody Coating" - Any Coating labeled and formulated for application to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the motor vehicle.

(64) "Uniform Finish Blenders" - Any Coating labeled and formulated for application to the area around a Spot Repairs for the purpose of blending a repaired area's color or clear coat to match the appearance of an adjacent area's existing Coating.

On and after 05/01/13 this Coating Category will be referred to as Uniform Finish Coating.

(65) "Uniform Finish Coating"- Any Coating labeled and formulated for application to the area around a Spot Repair for the purpose of blending a repaired area's color or clear coat to match the appearance of an adjacent area's existing Coating. Prior to 05/01/13 this Coating Category may be referred to as Uniform Finish Blenders.

(66) "Van" - a closed Truck for carrying property or persons.

(a) "Medium-Sized Van" - A Van having a manufacturer's gross vehicle weight rating of 6001 to 8600 pounds.

(b) "Small-Sized Van" - A Van having a manufacturer's gross vehicle weight rating at 6000 pounds or less and which is designed primarily for purposes of transportation of property and/or persons.

(67) "Vehicle" - a device by which any person or property may be propelled, moved, or drawn upon a Roadway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks.

(68) "VOC Actual" - This definition is the same as the definition of Grams of VOC per Liter of Material as listed under subsection (B)(27).

(69) "VOC Regulatory" - This definition is the same as the definition of Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds as listed under subsection (B)(26).

(70) "Volatile Organic Compound (VOC)" - Any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds.

(71) "Water Hold-Out Coating" - A Coating applied to the interior cavity areas of doors, quarter-panels and rocker panels for the purpose of corrosion resistance to prolonged water exposure.

(72) "Weld-Thru Coating" - A Coating applied to metal immediately prior to welding to provide corrosion resistance.

(C) Requirements

(1) VOC Content of Coatings

(a) Effective on the dates specified, a person shall not apply Coating to a Motor Vehicle, Mobile Equipment, or Associated Parts or Components, that has a VOC content in excess of the limits contained in Table 1 and Table 2 of this subsection except as provided in Section (C)(3)(a) or (b).

Table 1 - Coating Categories and VOC Limits

	VOC Regulatory Limit, as applied, in grams per Liter (pounds per gallon)
Coating Categories	**Effective on and after 05/01/13**
Adhesion Promoter	540 (4.5)
Clear Coating	250 (2.1)
Color Coating	420 (3.5)
Multi-color Coating	680 (5.7)
Pretreatment Coating	660 (5.5)
Primer	250 (2.1)
Primer Sealer	250 (2.1)
Single-stage Coating	340 (2.8)
Temporary Protective Coating	60 (0.5)
Truck Bed Liner Coating	310 (2.6)
Underbody Coating	430 (3.6)
Uniform Finish Coating	540 (4.5)
Any Other Coating Type	250 (2.1)

Table 2 - Coating Categories and VOC Limits

Coating Categories	VOC Regulatory Limit, as applied, in grams per Liter (pounds per gallon)	
	Group 1* Vehicles prior to 05/01/13	**Group 2** vehicles prior to 05/01/13**
Pretreatment Wash Primer	780 (6.5)	780 (6.5)
Primer/Primer Surfacer/ Primer Sealer	250 (2.1)	250 (2.1)
Primer Sealer	250 (2.1)	340 (2.8)
Topcoat		
General	340 (2.8)	420 (3.5)
Metallic/Iridescent	340 (2.8)	420 (3.5)
Multi-Colored	680 (5.7)	680 (5.7)
Multistage	340 (2.8)	420 (3.5)
Specialty Coatings	840 (7.0)	840 (7.0)

*Group 1 Vehicles are public transit buses and mobile equipment including but not limited to: truck bodies, truck trailers, utility bodies, camper shells, mobile cranes, bulldozers, street cleaners, golf carts, and implements of husbandry, where color match is not required.

**Group 2 Vehicles are passenger cars; large/heavy duty truck cabs and chassis with a manufacturer's gross vehicle weight over 10,000 pounds; light and medium duty trucks and vans having a manufacturer's gross vehicle weight rating of 10,000 pounds or less; and motorcycles; and Group 1 Vehicles where color match is required.

(b) Compliance with the VOC limits shall be based on VOC Content, including any VOC material added to the original coating supplied by the manufacturer, less water and Exempt Compounds, as applied to the Motor Vehicle, Mobile Equipment, or Associated Parts or Components (please, refer to subsection (B)(26) for the calculation of VOC Content).

(2) Most Restrictive VOC Limit

(a) If anywhere on the container of any Automotive Coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature, any representation is made that indicates that the Coating meets the definition of, or is recommended for use of, more than one of the Coating categories listed in subsection (C)(1)(a) and (b), then the lowest applicable VOC content limit in Table 1 and Table 2 shall apply.

(3) Alternative Compliance

(a) Emission Control System

A person may comply with the provisions of section (C)(1) by using an approved Emission Control System consisting of collection and control devices, that is approved, in writing, by the APCO for reducing emissions of VOC. The APCO shall approve such Emission Control Systems only if the Emission Control System demonstrates a control efficiency of at least

85 percent. The required efficiency of an Emission Control System at which an equivalent or greater level of VOC emission reduction will be achieved shall be calculated by the following equation:

$$CE = \left[1 - \left\{ \frac{VOC_{LWc}}{VOC_{LWn,Max}} \times \frac{1 - \left(\frac{VOC_{LWn,Max}}{D_{n,Max}} \right)}{1 - \left(\frac{VOC_{LWc}}{D_c} \right)} \right\} \right] \times 100$$

Where:

CE = Control Efficiency, percent

VOC_{LWc} = VOC Limit of Rule 1116, less water and less Exempt Compounds, pursuant to Section C.1.

$VOC_{LWn,Max}$ = Maximum VOC content of non-compliant Automotive Coating used in conjunction with a control device, less water and Exempt Compounds.

$D_{n,Max}$ = Density of VOC solvent, Reducer, or thinner contained in the non-compliant Automotive Coating containing the maximum VOC.

D_c = Density of corresponding VOC solvent, Reducer, or thinner used in the compliant Automotive Coating system = 880g/L.

(b) Alternative Emission Control Plan

A person may comply with the provisions of paragraph (C)(1)(a) by means of an Alternative Emissions Control Plan, pursuant to Rule 108 – *Alternative Emissions Control Plans.*

(4) Prohibited Compounds

(a) A Person shall not manufacture, sell, offer for sale, distribute for use in the District, or apply any Automotive Coating which contains any Group II Exempt Compounds, as defined in subsection (B)(28).

(5) Carcinogenic Materials

(a) A person shall not manufacture Automotive Coatings in which cadmium or hexavalent chromium was introduced as a pigment or as an agent to impart any property or characteristic to the Coatings during manufacturing, distribution, or use of the applicable Coatings as defined by the *Air Toxic Control Measure (ATCM) for Emissions of Hexavalent*

Chromium and Cadmium from Motor Vehicle and Mobile Equipment Coatings, Title 17 CCR, section 93112.

(6) Application Methods

(a) Except for Underbody Coatings, graphic arts operations, Truck Bed Liner Coatings, or any Coating use of less than one (1.0) fluid ounce (29.6 milliliters), no person shall apply any Coating to Motor Vehicles or Mobile Equipment or their Associated Parts and Components unless by the use of one of the following methods:

(i) Brush, dip, or roller; or,

(ii) Electrostatic Application equipment, operated in accordance with the manufacturer's recommendations and in compliance with permit conditions; or,

(iii) High-Volume, Low-Pressure (HVLP) Spray, operated in accordance with the manufacturer's recommendations and in compliance with permit conditions; or,

a. No Person shall sell or offer for sale, for Automotive Refinishing use within the District, any HVLP spray gun without a permanent marking denoting the maximum inlet air pressure in pounds per square inch gauge (psig) at which the gun will operate within the parameters specified in Section (B)(29).

b. If an Automotive Refinishing gun is not Permanently Labeled, the operator must demonstrate that the gun meets the HVLP definition in Section (B)(29) in design and use. A satisfactory demonstration must be based on the manufacturer's published technical material on the design of the gun and by a demonstration of the operation for the gun using an air pressure tip gauge designed specifically for the gun in use.

(iv) Any other Coating application which has been demonstrated to the satisfaction of the APCO to be capable of achieving a Transfer Efficiency equivalent to, or higher than, the application methods listed in subsections (C)(6)(a)(i) and (C)(6)(a)(ii) above, but not less than 65 percent, as per subsections (G)(2)(e) and (G)(2)(k),and for which written approval of the APCO has been obtained.

(7) Surface Preparation and Cleaning Operations

(a) The requirements of this subsection shall apply to any Person using solvent for Surface Preparation and Cleaning Operations.

(i) Any Person shall not use an organic compound(s), or mixture thereof, (excluding Exempt Compounds) for Surface Preparation and Cleaning Operations with a VOC content in excess of twenty-five (25) grams per liter (0.21 pounds per gallon) of material.

a. Cleaning with aerosol solvent products shall not be subject to the provisions of subsection (C)(7)(a) if 160 fluid ounces or less of aerosol solvent products are used per day, per facility.

(ii) Any Person shall use closed, non-absorbent containers for the storage or disposal of any applicator (including brushes, swabs, cloth or paper) used for solvent Surface Preparation and Cleaning Operations.

(iii) Any Person shall store all Automotive Coatings, Coating components, and fresh or spent solvent in vapor tight and closed containers, except while adding or removing them from the containers.

(iv) Any Person shall not use organic compounds for the Cleaning Operations of spray equipment including paint liners unless an enclosed system is used for Cleaning Operations. The system shall enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures. Equipment used shall minimize the evaporation of organic compounds to the atmosphere.

(b) Effective May 1, 2013, no Person shall possess at any Automotive Refinishing Facility, any solvent used for Surface Preparation and Cleaning Operations with a VOC content that does not comply with the requirements in subsection (C)(7)(a)(i).

(8) Prohibition of Possession, Specification and Sale

(a) No Person subject to this rule shall posses any Automotive Coating that is not in compliance with the requirements of subsection (C)(1), unless one or more of the following conditions apply:

(i) The Coating is located at a facility that utilizes an approved Emission Control System pursuant to subsection (C)(3)(a), and the Coating meets the limits specified in permit conditions.

(ii) The Coating is located at a facility that operates in compliance with an approved Alternative Emissions Control Plan pursuant to subsection (C)(3)(b), and the Coating is specified in the plan.

(iii) The Coating is located at a training center and the Coating is used for educational purposes, provided that the VOC emissions from Coatings not meeting VOC limits of section (C)(1) do not exceed twelve (12) pounds per day.

(iv) The Coating is located at a prototype Motor Vehicle manufacturing facility and the Coating is supplied by an assembly-line Motor Vehicle manufacturer for use in the Refinishing of a prototype Motor Vehicle, provided that the VOC emissions from Coatings not meeting the VOC limits of section (C)(1) do not exceed twenty-one (21) pounds per day and 930 pounds in any one calendar year.

(b) No person shall solicit from, or require any other Person to use, in the District any Automotive Coating or solvent which, when applied as supplied or thinned or reduced according to the manufacturer's recommendation for application, does not meet the:

(i) Applicable VOC limits required by subsection (C)(1) for that specific application unless:
  a. The Coating is located at a Automotive Refinishing Facility that utilizes an approved Emission Control System pursuant to subsection (C)(3)(a), and the Coating meets the limits specified in permit conditions.
  b. The Coating is specifically exempt pursuant to section (D) of this rule.

(ii) Applicable VOC limits for solvent for Surface Preparation and Cleanup Operations pursuant to section (C)(7).

(c) No Person shall manufacture, blend, supply, repackage for sale, offer for sale, sell, or distribute for use in the District any Automotive Coating which, when applied as supplied or thinned or reduced according to the manufacturer's recommendation for application, does not meet the:

(i) Applicable VOC limits required by subsection (C)(1) for the specific application, unless:
  a. The Coating is located at an Automotive Refinishing Facility that utilizes an approved Emission Control System pursuant to subsection (C)(3)(a), and the Coating meets the limits specified in permit conditions.
  b. The Coating is specifically exempt under section (D) of this rule.
  c. The Person that offers for sale or distributes the Coating keeps the following records for at least five (5) years and makes them available to the APCO upon request, the following information:
    1. Coating name and manufacturer;
    2. Application method;
    3. Automotive Coating Category and mix ratio specific to the Coating;
    4. VOC content of Coating;
    5. Documentation that the material is a Coating;
    6. Current manufacturer specification sheets, material safety data sheets (MSDS), technical data sheets, or air quality data sheets, which list the VOC content of each ready-to-spray Coating (based on the manufacturer's stated mix ratio), Automotive Coating Components, and VOC content of each solvent;

7. Purchase records identifying the Automotive Coating category, name, and volume of Coatings; and,
8. The name and address of the Person purchasing the Coating, a statement of the basis the purchase will comply with this paragraph, including if use is for outside the District, and acknowledgement by the purchaser that this statement is correct.

(ii) Requirements of subsections (C)(4) and (C)(5).

(d) No Person shall solicit from, require, offer for sale to, sell to, or distribute to any other Person for the use in the District any Automotive Coating application equipment that does not meet the requirements of subsection (C)(6).

(e) The requirements of subsections (C)(1), (C)(2), and (C)(3)shall apply to all written or oral agreements executed and entered into under the terms of which an Automotive Coating or a Coating application equipment shall be used at any location within the District.

(D) Exemptions

(1) The provisions of this rule shall not apply to:

(a) Any Coating applied to Motor Vehicle or Mobile Equipment, or their Associated Parts and Components, during manufacture on an Assembly Line.

(b) Any Automotive Coating that is offered for sale, sold, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.

(c) Any Stencil Coating Product.

(d) Any Aerosol Coating Product.

(e) Any Automotive Coating that is sold, supplied, or offered for sale in one-half (0.5) fluid ounce or smaller containers.

(2) The prohibitions specified in subsections (C)(8) shall not apply to persons offering for sale to, selling to, distributing to, or requiring other persons who are operating an approved Emission Control System under subsection (C)(3)(a), or complying under subsection (C)(3)(b), or operating pursuant to subsection (D)(3).

(3) The requirements of subsection (C)(1)(a) shall not apply to Coatings applied for educational purposes at Coating training centers, which are owned and operated by Coating manufacturers, provided that the VOC emissions emitted at a Coating

training center from Coatings not complying with subsection (C)(1)(a) do not exceed twelve (12) pounds per day.

(4) The requirements of subsection (C)(1) shall not apply to Coatings located at a prototype Motor Vehicle manufacturing facility and the Coating is supplied by an assembly-line Motor Vehicle manufacturer for use in the Refinishing of a prototype Motor Vehicle, provided that the VOC emissions from Coatings not meeting the VOC limits of section (C)(1) do not exceed twenty-one (21) pounds per day and 930 pounds in any one calendar.

(5) Any facility or Person classified as exempt or claiming to be exempt under this section, (D), shall meet the record keeping requirements of this rule so as to be able to prove the exemption status.

(6) Rule 442 Applicability

(a) Any Coating, Coating operation, or facility which is exempt from all or a portion of the VOC limits of this rule shall comply with the provisions of Rule 442 if applicable.

(E) Administrative Requirements

(1) Manufacturer's Compliance Statement Requirement

(a) For each individual Automotive Coating, Automotive Coating Component, ready-to-spray mixture (based on the manufacturers stated mix ratio), and solvents the manufacturer and/or repackager shall include the following information on a product data sheet, or an equivalent medium:

(i) The VOC Actual and the VOC Regulatory for Coatings (in grams per liter).
(ii) The weight percentage of volatiles, water, and Exempt Compounds.
(iii) The volume percentage of water and Exempt Compounds.
(iv) The density of the material (in grams per liter).
(v) The weight percentage of all Targeted HAP Compounds.

(b) For each solvent used in Solvent Cleaning Operations, the manufacturer and/or repackager shall include the following information on a product data sheet, or an equivalent medium:

(i) The VOC Actual and the VOC Regulatory for Coatings (in grams per liter).

(2) Manufacturer's Labeling Requirements

(a) The manufacturer and/or repackager of Automobile Coatings or Automotive Coating Components shall include, on all containers, the applicable use Coating Category(ies), and the VOC Actual and the VOC Regulatory for Coatings, as supplied (in grams per liter).

(b) The manufacturer and/or repackager of solvents subject to this rule shall include on all containers the VOC content for solvents, as supplied (in grams per liter).

(F) Record Keeping Requirements

(1) All Persons subject to this rule and any Person claiming any exemption under sections (D)(1)(a) and (D)(1)(b) shall comply with the following requirements:

(a) Maintain and have available during an inspection, a current list of Automotive Coatings and solvents in use which provides all of the Coating data necessary to evaluate compliance, including the following information:

(i) The name and manufacturer;
(ii) The Coating Category type and the mix ratio of components used;
(iii) The VOC Actual and the VOC Regulatory content of each Automotive Coating as applied, or VOC content for solvent;
(iii) The Targeted HAP Compounds content as applied in weight percentage; and,
(v) The application method used.

(b) Maintain records on a daily basis including:

(i) Automotive Coating and mix ratio of components used in the Automotive Coating;
(ii) Quantity of each Automotive Coating applied;
(iii) Application method used to apply Automotive Coating; and,
(iv) Any Person/facility utilizing an add-on Emission Control System as a means of complying with provisions of this rule shall also maintain records of key system operating and maintenance data for the purpose of demonstrating continuous compliance during periods of emission producing activities. The data shall be recorded in a manner as prescribed by the District.

(c) Maintain records on a monthly basis for Surface Preparation and Cleaning Operations including:

(i) The name and manufacturer of the solvent used, including methylene chloride (MeCl).
(i) The amount of each solvent and methylene chloride (MeCl) consumed for any use, in gallons.

(ii) The weight percentage of each solvent and methylene chloride (MeCl) consumed for any use.

(d) Such records shall be retained and available for inspection by the APCO for a minimum of five (5) years.

(2) Any Person claiming any exemption under sections (D)(1)(c), (D)(1)(d), and (D)(1)(e) shall comply with the following requirements:

(b) Maintain records on a daily basis including:

(i) Exempt product type (i.e. Stencil Coating, Aerosol Coating Product, half-fluid ounce Coating);
(ii) The name and manufacturer of the exempted Coating type; and,
(iii) The amount of the exempted Coating type.

(G) Test Methods

(1) A violation of the limits contained in this rule as determined by any one of these test methods shall constitute a violation of this rule.

(2) The following specified test methods shall be used to determine compliance with the provisions of this rule.

(a) VOC Content of Coatings or Solvents

(i) The VOC content of Coatings or solvents shall be determined as prescribed by United States Environmental Protection Agency Reference Method 24 (without correction for Exempt Compounds) as set forth in Appendix A of Title 40 of the Code of Federal Regulations (40 CFR) Part 60, “Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings”.

(b) Determination of Iridescent Particles/Metallic Content

(i) The metal and silicon content of Metallic/Iridescent Color Coatings shall be determined by South Coast Air Quality Management District Method 318-95, “Determination of Weight Percent Elemental Metal in Coatings by X-ray” (July 1996).

(c) Acid Content

(i) The acid content shall be determined by ASTM Test Method D1613-96, “Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products” (May 1996).

(d) Reflectance of Anti-Glare Safety Coatings

(i) The reflectance of Anti-Glare Safety Coatings shall be measured by ASTM Test Method C523-89 (1989).

(e) Transfer Efficiency

(i) The transfer efficiency of alternative Coating application methods, as defined by subsection (C)(6)(a)(iii), shall be determined in accordance with the South Coast Air Quality Management District method "TE -Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989."

(f) Equivalent Test Methods

(i) Other test methods determined to be equivalent after review by the staffs of the District, California Air Resources Board, and the United States Environmental Protection Agency, and approved in writing by the Air Pollution Control Officer may also be used for methods of analysis.

(g) Determination of Efficiency of Emission Control Systems

(i) Emissions of VOC for operations with Emission Control Systems shall be measured as prescribed by EPA Reference Method 25, 25A, or 25B for determining VOC emissions and control device efficiency, in combination with the USEPA method, “Guidelines for Determining Capture Efficiency” (January 9, 1995) and 40 CFR 51, Appendix M, Methods 204-204f as applicable for determination of capture efficiency.

(h) Determination of Methyl Acetate, Acetone, and PCBTF Content

(i) The quantity of methyl acetate , acetone, t-butyl acetate, and parachlorobenzotrifluoride shall be determined by using ASTM Method D6133-02: “Standard Test Method for Acetone, *p*-Chlorobenzotrifluoride, Methyl Acetate or *t*-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw materials by Direct Injection Into a Gas Chromatograph” (February 2003).

(i) Determination of Alternative Compliance

(i) Alternative compliance shall be determined by USEPA Method 25, 25A, or 25B, Title 40 CFR Part 60, Appendix A as applicable. A source is in violation if the measured VOC emissions, as measured by any of the test methods, exceed the standards specified in Section (C)(1).

(j) Exempt Compound Content

(i) Exempt compound content, other than as determined pursuant to section (G)(2)(3), shall be determined by using CARB Method 432, “Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings” (September 12, 1989); CARB Method 422, “Determination of Volatile Organic Compounds in Emissions from Stationary Sources” (September 12, 1990); or, South Coast Air Quality Management District (SCAQMD) Method 303-91, “Determination of Exempt Compounds” (August 1996).

(k) HVLP Equivalency

(i) Transfer Efficiency equivalent to HVLP shall be determined by procedures as prescribed in the South Coast Air Quality Management District (SCAQMD) document "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns” (September 26, 2002).

(l) Multiple Test Methods

(i) When more than one test method or set of test methods are 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 the rule.

[See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921]

(Adopted: 06/20/17)

RULE 1151.1
Motor Vehicle Assembly Coating Operations

(A) General

(1) Purpose

(a) The purpose of this rule is to reduce emissions of Volatile Organic Compounds (VOCs) from Coatings and solvents associated with Motor Vehicle Assembly Coating Operations.

(2) Applicability

(a) This rule is applicable to all Motor Vehicle Assembly Coating Operations who apply Coatings that contain VOCs to new Motor Vehicles, new Light-Duty Trucks, new Heavier Vehicles and other parts that are coated along with these body or body parts during the vehicle assembly process and associated solvent cleaning activities.

(b) This rule does not apply to any operation that is subject to the provisions of Rule 1151 - *Motor Vehicle and Mobile Equipment Coating Operations*.

(c) The provisions of this rule shall not apply to materials supplied in containers with a net volume of 16 fluid ounces or less, or a net weight of one (1) pound or less.

(d) Except for record keeping requirements in section (D), the provisions of this rule shall not apply to an operation where the total actual VOC emissions from all Motor Vehicle Coating Operations, including related cleaning activities, at that facility are less than 15 pounds per day before consideration of controls.

(e) Any Motor Vehicle Application Line exempt from all or a portion of this rule shall comply with the provisions of Rule 442 – *Usage of Solvents*.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) "Adhesive" – Any chemical substance, including glass bonding Adhesive, used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied for the purpose of bonding two vehicle surfaces together without regard to the substrates involved.

(2) "Air Pollution Control Officer (APCO)" – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750 and his or her designee.

(3) "Application Line" – The portion of a Motor Vehicle Assembly production line which applies surface and other Coatings to Motor Vehicle bodies, hoods, fenders, cargo boxes, doors, and grill opening panels.

(4) "Assembly Line" – An arrangement of industrial equipment and workers in which the product passes from one specialized operation to another until complete, by either automatic or manual means.

(5) "Automobile" – A Motor Vehicle designed to carry up to eight passengers, excluding vans, sport utility vehicles, and Motor Vehicles designed primarily to transport light loads of property.

(6) "Basecoat" – A pigmented Topcoat which is the first Topcoat applied as part of a Multistage Topcoat System.

(7) "Basecoat/Clearcoat (BC/CC)" – A Topcoat consisting of a base coat portion and a clear coat portion.

(8) "Bedliner" – Multi-component Coating, used at an Automobile or Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied to a cargo bed after the application of Topcoat and outside of the Topcoat operation to provide additional durability and chip resistance.

(9) "Brush Coating" – The manual application of coatings using brushes or rollers.

(10) "Capture Efficiency" - The percentage of Volatile Organic Compounds used, emitted, evolved, or generated by the operation, that are collected and directed to an air pollution control device.

(11) "Catalyst" –A substance whose presence enhances the reaction between chemical compounds.

(12) "Cavity Wax" – A Coating used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection.

(13) "Clearcoat" – A Topcoat which contains no pigments or only transparent pigments and which is the final Topcoat applied as part of a Multistage Topcoat System.

(14) "Coating(s)" – A material which is applied to a surface in order to beautify and/or protect such surface.

(15) "Coating Solids" – The nonvolatile portion of the Coating.

(16) "Continuous Coating" – An enclosed Coating system where spray nozzles coat parts and products as they are conveyed through the enclosure. Water wash zones control the inlet and outlet of the enclosure. Excess Coating drains into a recirculation system.

(17) "Deadener" – A Coating used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment.

(18) "Dip Coating" – Process in which a substrate is immersed in a solution (or dispersion) containing the Coating material, and then withdrawn.

(19) "Electrodeposition" – A Dip Coating application method where the Coating solids are given an electrical charge which is then attracted to a substrate.

(20) "Electrodeposition Primer (EDP)" – A process of applying a protective, corrosion-resistant waterborne Primer on exterior and interior surfaces that provides thorough coverage of recessed areas. It is a Dip Coating method that uses an electrical field to apply or deposit the conductive Coating onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank. Also referred to as E-Coat, Uni-Prime, and ELPO Primer.

(21) "Electrostatic Spray Application" – A method of applying Coatings whereby the atomized Coating droplets are charged and subsequently deposited on the substrate by electrostatic attraction.

(22) "Emission Control System" – Any combination of capture system and control devices used to reduce VOC emissions from Motor Vehicle Assembly Coating Operations.

(23) "Exempt Compounds" – Those compounds listed in 40 CFR 51.100(s).

(24) "Final Repair" – The operations performed and Coating(s) applied to completely-assembled Motor Vehicles or to parts that are not yet on a completely assembled vehicle to correct damage or imperfections in the Coating. The curing of the Coatings applied in these operations is accomplished at a lower temperature than that used for curing Primer-Surfacer and Topcoat. This lower temperature cure avoids the need to send parts that are not yet on a completely assembled vehicle through the same type of curing process used for Primer-Surfacer and Topcoat and is necessary to protect heat sensitive components on completely assembled vehicles.

(25) "Flow Coating" – A Coating application system, with no air supplied to the nozzle, where Coatings flow over the part and the excess Coating drains back into the collection system.

(26) "Formulation Data" – The actual product recipe which itemizes all the ingredients contained in a product including VOCs and the quantities thereof used by the manufacturer to create the product. Material Safety Data Sheets (MSDS) are not considered Formulation Data.

(27) "Gasket/Gasket Sealing Material" – Fluid used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied to coat a gasket or replace and perform the same function as a gasket. Automobile, Light-Duty Truck and Heavier Vehicle Gasket/Gasket Sealing Material includes room temperature vulcanization (RTV) seal material.

(28) "Glass Bonding Primer" – Primer, used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied to windshield or other glass, or to body openings, to prepare the glass or body opening for the application of glass bonding, Adhesives or the installation of Adhesive bonded glass. Automobile, Light-Duty Truck or Heavier Vehicle Glass Bonding Primer includes Glass Bonding Primers that perform both functions (cleaning and priming of the windshield or other glass, or body openings) prior to the application of Adhesive or the installation of Adhesive bonded glass.

(29) "Grams of VOC per Liter of Coating Excluding Water and Exempt Compounds (VOC Regulatory)" – The weight of VOC per combined volume of VOC and Coating solids and can be calculated by the following equation:

Grams of VOC per Liter of Coating Excluding Water and Exempt Compounds: $= \frac{W_s - W_w - W_{ec}}{V_m - V_w - V_{ec}}$

Where:

W_s = weight of volatile compounds in grams
W_w = weight of water, in grams
W_{ec} = weight of Exempt Compounds, in grams
V_m = volume of material, in liters
V_w = volume of water, in liters
V_{ec} = volume of Exempt Compounds, in liters

(30) "Grams of VOC per liter of Material (VOC Actual)" – The weight of VOC per volume of material and can be calculated by the following equation:

$$Grams\ of\ VOC\ per\ Liter\ of\ Material = \frac{W_s - W_w - W_{ec}}{V_m}$$

Where:

W_s = weight of volatile compounds, in grams
W_w = weight of water, in grams
W_{ec} = weight of Exempt Compounds, in grams
V_m = volume of material, in liters

(31) "Hand Application Methods" – The application of Adhesive or Sealant by manually held equipment. Such equipment includes paint brush, hand roller, trowel, spatula, dauber, rag, sponges, and mechanically and/or pneumatic-driven syringes without atomization of the materials.

(32) "Heat Resistant Coating" – Coatings which, during normal use, must withstand temperatures of at least 400 °F.

(33) "Heavier Vehicles" – A self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds.

(34) "High-Volume, Low-Pressure (HVLP) Spray Equipment" – Equipment used to apply materials by means of a spray gun which is designed and intended to be operated, and which is operated, between 0.1 and 10.0 pounds per square inch gauge (psig) of air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

(35) "Impact Resistant Coating" – Any Coating which is applied to a rocker panel for the purpose of chip resistance to road debris.

(36) "In-line Repair" – Operation performed and Coating(s) applied to correct damage or imperfections in the Topcoat on parts that are not yet on a completely assembled vehicle. The curing of the Coatings applied in these operations is accomplished at essentially the same temperature as that used for curing the previously applied Topcoat. This can also be referred to as high bake repair or high bake reprocess. In-line Repair is considered part of the Topcoat operation.

(37) "Light-Duty Truck" – Vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property, with a gross Motor Vehicle weight rating of 8,500 pounds or less.

(38) "Lubricating Wax/Compound" – Protective lubricating material, used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied to vehicle hubs and hinges.

(39) "Motor Vehicles" – Automobiles, Light-Duty Trucks, and Heavier Vehicles as defined herein.

(40) "Motor Vehicle Assembly Coating Operation" – Any person who applies Coatings to new Automobiles, Light-Duty Trucks, Heavier Vehicles, or body parts for new Automobiles, Light-Duty Trucks, or Heavier Vehicles, and other parts coated along with these bodies or body parts during the assembly process, and associated solvent cleaning activities.

(41) "Multistage Topcoat System" – Any Basecoat/Clearcoat Topcoat system or any Three-Stage Topcoat System, manufactured as a system, and used as specified by the manufacturer.

(42) "Overall Control Efficiency" – The product of capture and control efficiencies.

(43) "Primer" – Any Coating which is labeled and formulated for application to a substrate to provide 1) a bond between the substrate and subsequent coats, 2) corrosion resistance, 3) a smooth substrate surface, or 4) resistance to penetration of subsequent coats, and on which a subsequent Coating is applied. Primers may be pigmented.

(44) "Primer Sealer" – Any Coating which is labeled and formulated for application prior to the application of a color Coating for the purpose of color uniformity, or to promote the ability of the underlying Coating to resist penetration by the color Coating.

(45) "Primer-Surfacer" – An intermediate protective Coating applied over the Electrodeposition Primer and under the Topcoat. Primer-Surfacer provides adhesion, protection, and appearance properties to the total finish. Primer-Surfacer may also be called guide coat or surfacer. Primer-Surfacer operations may include other Coating(s) (e.g., anti-chip, lower-body anti-chip, chip-resistant edge Primer, spot Primer, blackout, Deadener, interior color, Basecoat replacement Coating, etc.) that is (are) applied in the same spray booth(s).

(46) "Reactive Adhesive" – An Adhesive system composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the Adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

(47) "Reducer/Thinner" – Any volatile liquid used to reduce the viscosity of the Coating, but not used for Cleaning Operations. This liquid may be solvents, diluents, or both.

(48) "Roll Coating" – The application of Coatings from a paint trough to a flat surface by a mechanical series of rollers.

(49) "Sealer" – High viscosity material, used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, generally, but not always, applied in the paint shop after the body has received an Electrodeposition Primer Coating and before the application of subsequent Coatings (e.g., Primer-Surfacer). The primary purpose of Automobile, Light-Duty Truck or Heavier Vehicle Sealer is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Such materials are also referred to as sealant, sealant Primer, or caulk.

(50) "Solids Turnover Ratio" – The ratio of total volume of Coating solids that is added to the EDP system in a calendar month divided by the total volume design capacity of the EDP system.

(51) "Solvent Cleaning Operation" – The removal of loosely held uncured Adhesives, uncured inks, uncured Coatings, and contaminants which include, but are not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas. Each distinct method of cleaning in a cleaning process which consists of a series of cleaning methods shall constitute a separate Solvent Cleaning Operation.

(52) "Solvent Flushing" – The use of a solvent to remove uncured Adhesives, uncured inks, uncured Coatings, or contaminants from the internal surfaces and passages of equipment by flushing solvent, by a non-atomized solvent flow, through the equipment.

(53) "Surface Preparation" – The removal of contaminants from a surface prior to the application of Coatings, inks, or Adhesives or before proceeding to the next step of a manufacturing process.

(54) "Technical Data Sheet" – A document that defines physical values of the product when mixed as recommended with the listed components.

(55) "Three-Stage Topcoat System" – A Topcoat system composed of a basecoat portion, a midcoat portion, and a transparent Clearcoat portion.

(56) "Topcoat" – The final Coating system applied to provide the final color and/or a protective finish. The Topcoat may be a monocoat color or Basecoat/Clearcoat system. In-line Repair and two-tone are part of a Topcoat. Topcoat operations may include other Coating(s) (e.g., blackout, interior color, etc.) that is (are) applied in the same spray booth(s).

(57) "Transfer Efficiency (TE)" – The ratio of the weight (or volume) of Coating solids adhering to an object to the total weight (or volume) of Coating solids used in the application process expressed as a percentage.

(58) "Trunk Interior Coating" – A Coating, used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility outside of the Primer-Surfacer and Topcoat operations, applied to the trunk interior to provide chip protection.

(59) "Underbody Coating" – A Coating, used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied to the undercarriage or firewall to prevent corrosion and/or provide chip protection.

(60) "VOC Actual" - This definition is the same as the definition of Grams of VOC per Liter of Material as listed under subsection (B)(31).

(61) "VOC Regulatory" – This definition is the same as the definition of Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds as listed under subsection (B)(30).

(62) "Volatile Organic Compound (VOC)" –Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds, which participate in atmospheric photochemical reactions.

(63) "Weatherstrip Adhesive" – Adhesive, used at an Automobile, Light-Duty Truck or Heavier Vehicle assembly Coating facility, applied to weatherstripping materials for the purpose of bonding the weatherstrip material to the surface of the vehicle.

(64) "Wipe Cleaning" – A Solvent Cleaning activity performed by hand rubbing an absorbent material such as a rag, paper, sponge, brush, or cotton swab containing solvent.

(C) Requirements

(1) VOC Content of Coatings

(a) An operator of a Motor Vehicle Assembly Operation shall not apply a Coating that has a VOC content in excess of the limits contained in Table 1 or Table 2 of this subsection, except as provided in Section (C)(2).

(b) The pounds of VOC per gallon of Coating solids deposited shall be calculated according to the following formula using content average listed on the suppliers Technical Data Sheet:

$$Coating\ Density[\frac{lb\ \ coating}{gal\ coating}] \times \frac{(Wv-(Ww+Wec))}{lb\ coating} \times \frac{1\ gal\ coating}{Vs} = \frac{lb\ VOC}{gal\ solids}$$

$$\frac{lb\ VOC}{gal\ solids} \times \frac{l\ gal\ solids\ used}{TE} = \frac{lb\ VOC}{gal\ solids\ deposited}$$

Where:

Coating Density (lb Coating)	=	Pound per Gallon (Average)
W_v	=	Weight percent volatiles lb (Average)
W_w	=	Weight percent water (Average)
W_{ec}	=	Weight percent exempt VOC (Average)
V_s	=	Volume percent (gallon of solids)-(Average)
TE	=	Transfer Efficiency-ratio

(c) If a coating(s) is determined to be non-compliant pursuant to the calculation in (C)(1)(b), and more than one coating in the same assembly coating process is used in the same day, the following daily weighted average calculation may be used to determine compliance within each assembly coating process:

(i) Determine $\frac{lb\ VOC}{gal\ solids\ deposited}$ as per the equation in (C)(1)(b) for each coating used within a specific process.

(ii) The daily weighted average is the quotient of total VOCs (pounds), (within a specific process) divided by total gallons solids deposited (within a specific process).

Table l
VOC Emission Limits for Motor Vehicle Assembly Coating Operations

Assembly Coating Process	**VOC Emission Limit**		
Electrodeposition Primer operations (including application area, spray/rinse stations, and curing oven)	When Solids Turnover Ratio (R_T)≥0.16	When 0.040 ≤ R_T <0.160	When R_T < .040
	0.084 kg VOC /liter (0.7 lb/gal) Coating solids applied	0.084 x 350 $^{0.160- R_T}$ kg VOC/liter (0.084 x 350 $^{0.160- R_T}$ x 8.34 lb/gal) Coating solids applied	No VOC emission limit
Primer-Surfacer operations (including application area, flash off area, and oven)	1.44 kg of VOC/liter of deposited solids (12.0 lb VOC/gal of deposited solids) using the calculation in (C)(1)(b), or for non-compliant coating(s),using the daily weighted average calculation in (C)(1)(c)		
Topcoat operations (including application area, flash-off area, and oven)	1.44 kg of VOC/liter of deposited solids (12.0 lb VOC/gal of deposited solids) using the calculation in (C)(1)(b), or for non-compliant coating(s),using the daily weighted average calculation in (C)(1)(c)		
Combined Primer-Surfacer and Topcoat operations	1.44 kg of VOC/liter of deposited solids (12.0 lb VOC/gal of deposited solids) using the calculation in (C)(1)(b), or for non-compliant coating(s),using the daily weighted average calculation in (C)(1)(c)		
Final Repair operations	0.58 kg VOC/liter (4.8 lb VOC/gallon of Coating) less water and less exempt solvents on a daily weighted average basis or as an occurrence weighted average.		

Table 2
VOC Content Limits for Miscellaneous Materials Used at Motor Vehicle Assembly Coating Operations (grams of VOC per liter of Coating, excluding water and Exempt Compounds, as applied.)

Material	VOC Emission Limit, as applied, in grams per liter (pounds per gallon)
Glass Bonding Primer	900 (7.5)
Adhesive	250 (2.1)
Cavity Wax	650 (5.4)
Sealer	650 (5.4)
Deadener	650 (5.4)
Gasket/Gasket Sealing Material	200 (1.7)
Underbody Coating	650 (5.4)
Trunk Interior Coating	650 (5.4)
Bedliner	200 (1.7)
Weatherstrip Adhesive	750 (6.3)
Lubricating Wax/Compound	700 (5.8)

(2) Emission Control System Requirements

(a) In lieu of complying with the requirements in section (C)(1), an operator may use a Emission Control System that meets all of the following requirements:

(i) The Emission Control System, consisting of collection and control devices, shall be approved in writing by the APCO.

(ii) The approved Emission Control System shall achieve an overall capture and control efficiency of at least 90 percent by weight as calculated according to section (C)(2)(a)(iv).

(iii) Use of an Emission Control System shall result in VOC emissions equal to or less than VOC emissions which would result from compliance with the applicable requirements of section (C)(1), (C)(3) or (C)(4).

(iv) The minimum required control efficiency of an Emission Control System at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by the following equation:

$$C.E. = [\ 1- \{\ \frac{(VOC_{LWc})}{(VOC_{LWn,Max})}\ x\ \frac{1-(\frac{VOC_{LWn,Max})}{D_{n,Max}}}{1-(\frac{VOC_{LWc}}{D_c})}\ \}\ ]\ x\ 100$$

Where: C.E. = Overall Control Efficiency, percent

VOC_{LWc} = VOC Limit less water and less Exempt compounds

$VOC_{LWn,Max}$ = Maximum VOC content of non-compliant Coating used in conjunction with a control device, less water and Exempt compounds.

$D_{n,Max}$ = Density of solvent, Reducer/Thinner contained in the non-compliant Coating.

D_c = Density of corresponding solvent, Reducer/Thinner used in the compliant Coating system.

(3) Coating Application Methods

(a) The operator shall apply Coatings using one of the following methods:

(i) Brush, Dip or Roll Coating; or
(ii) Electrostatic Application; or
(iii) Flow Coating; or
(iv) Continuous Coating; or
(v) High Volume, Low Pressure (HVLP) spray equipment operated in accordance with the manufacturer's recommendations.

(b) Any other Coating application method which is demonstrated in accordance with the provisions of (E)(1)(e) to be capable of achieving equivalent or better Transfer Efficiency than the automotive Coating application listed in (C)(3)(a)(v), provided written approval from the APCO is obtained prior to use.

(c) In lieu of compliance with Section (C)(1) , an operator may control emissions from application equipment with a VOC Emission Control System that meets the requirements of section (C)(2).

(4) Solvent Cleaning Operations

(a) Solvent Cleaning Operations shall use solvents that have a VOC content equal to or less than 25 grams VOC/liter of cleaning material as calculated using the equations listed in section (B)(30).

(b) Cleaning activities that use solvents shall be performed by one or more of the following methods:

(i) Wipe Cleaning; or
(ii) Application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant induced force; or
(iii) Non-atomized solvent flow method in which the cleaning system is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or
(iv) Solvent Flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

(c) Solvent shall not be atomized into the open air unless it is vented to an APCO approved VOC Emission Control System that complies with section (C)(2). This provision shall not apply to the cleaning of nozzle tips of automated spray equipment systems, except for robotic systems and cleaning with spray bottles or containers described in section (C)(4)(b)(ii).

(d) An operator shall not use VOC containing materials to clean spray equipment used for the application of Coatings, Adhesives or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures, and it must be used according to the manufacturer's recommendations; when not in use, it must be closed.

(e) In lieu of complying with sections (C)(4)(a) through (C)(4)(d), an operator may control VOC emissions from solvent cleaning with an APCO approved VOC Emission Control System that meets the requirements of section (C)(2).

(5) Solvent Disposal and Storage

(a) The operator shall store or dispose of fresh or spent solvents, waste solvent cleaning materials such as cloth, paper, Coating, Adhesives, Catalysts and thinners in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty.

(6) Work Practice Plan

(a) The operator shall develop a work practice plan to reduce VOC emissions from Automobile, Light-Duty Truck and Heavier Vehicle assembly Coating-related activities which include, but are not limited to:

(i) Store all VOC-containing Coatings, thinners and Coating-related waste materials in closed containers
(ii) Ensure that mixing and storage containers used for VOC-containing Coatings, thinners and Coating-related waste materials are kept closed at all times except when depositing or removing these materials
(iii) Minimize spills of VOC-containing Coatings, thinners, and Coating-related waste materials
(iv) Transport VOC-containing Coatings, thinners, and Coating-related waste materials from one location to another in closed containers or pipes
(v) Minimize VOC emission from cleaning of storage, mixing and transporting equipment.

(b) The operator shall develop and implement a work practice plan to minimize VOC emissions from cleaning and from purging of equipment associated with new Motor Vehicle Assembly Coating Operations for which emission limits are required by this rule. The plan should specify practices and procedures to ensure VOC emissions from the following operations are minimized:

(i) Vehicle Body wiping;
(ii) Coating line purging;
(iii) Flushing of Coating systems;
(iv) Cleaning of spray booth grates, walls and equipment;
(v) Cleaning external spray booth areas; and
(vi) Other housekeeping measures.
(vii) If an operator has a 2004 National Emission Standard for Hazardous Pollutants (NESHAP) (40 CFR, part 63, subpart IIII) work practice plan in place, instead of creating another work practice plan to address VOC emissions, the operator shall add to its NESHAP work practice plan procedures for minimizing non-hazardous air pollutants (HAP) VOC emissions.

(D) Record Keeping Requirements

(1) All persons subject to this rule and any person claiming any exemption under sections (A)(2) shall comply with the following requirements

(a) Maintain and have available during an inspection, a current list of Coatings and solvents in use which provides all of the Coating data necessary to evaluate compliance, including the following information:

(i) The name and manufacturer;
(ii) The mix ratio of components used;
(iii) The VOC Actual and the VOC Regulatory content of each Coating as applied, or VOC content for each solvent;
(iv) Current Technical Data Sheet, Product Data Sheet or an equivalent manufacturers document for each coating and solvent, which provide the physical properties necessary to determine the lb VOC/Coating Solids deposited.
(v) Purchase records identifying the automotive category, name and the total volume of all coatings and solvents.

(b) Maintain records on a daily basis including:

(i) Coating category and mix ratio of components used in the Coating; and
(ii) Volume of each Coating applied (gallons); and
(iii) Application method used to apply Coating; and,
(iv) VOC content ((pounds per gallon) or (grams per liter)) and, for Dip Coating operations, viscosity (cSt) of Coating; and
(v) Non-compliant coatings that use the daily weighted average calculation (C)(1)(c)

(c) Maintain records on a monthly basis for Surface Preparation and Cleaning Operations including:

(i) The name and manufacturer of the solvent used, including methylene chloride MeCl.
(ii) The amount of each solvent and MeCl consumed for any use, in gallons.
(iii) The weight percentage of each solvent and MeCl consumed for any use.

(d) Such records shall be retained and available for inspection by the APCO for a minimum of five (5) years.

(2) An operator using an Emission Control System as a means of complying with the provisions in section (C) shall maintain daily records of key system operating parameters which will demonstrate continuous operation and compliance of the Emission Control System during periods of emission producing activities. Key system operating parameters are those necessary to ensure compliance with VOC limits. The parameters include, but are not limited to temperature, pressures and flowrates.

(E) Test Methods

(1) The following test methods are incorporated by reference herein and shall be used to determine compliance with the provisions of the rule. Alternate test methods may be used, provided they are approved by the APCO, ARB and USEPA.

(a) VOC content of Coatings, other than reactive Adhesives, used at Motor Vehicle Assembly Coating Operations shall be determined using USEPA Method 24 and analysis of halogenated Exempt Compounds shall be analyzed by ARB Method 432.

(b) The procedure for reactive Adhesives in appendix A of the NESHAP for surface Coating of plastic parts (40 CFR Part 63, subpart PPPP) shall be used to determine the VOC content of reactive Adhesives.

(c) The manufacturer's Formulation Data shall be accepted as an alternative to these methods. If there is a disagreement between manufacturer's Formulation Data and the results of a subsequent test, use the test method results unless the facility can make a demonstration to the APCO's satisfaction that the manufacturer's Formulation Data are correct.

(d) Determination of emissions of VOC from spray gun cleaning systems shall be made using South Coast Air Quality Management District (SCAQMD) "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," October 3, 1989.

(e) The Transfer Efficiency of alternative Coating application methods shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," May 24, 1989 and SCAQMD "Guidelines for Demonstrating Equivalency With District Approved Transfer Efficiency Spray Gun", September 26, 2002.

(2) Determination of Efficiency of Emission Control System

(a) The Capture Efficiency of the Emission Control System as specified in paragraph (C)(2) shall be determined by the procedures presented in the USEPA technical guidance document, "Guidelines for Determining Capture Efficiency", January 9, 1995 and 40 CFR 51, Appendix M, Methods 204-204f as applicable for determination of capture efficiency. Alternate test methods may be used, provided they are approved by the APCO, ARB and USEPA.

(b) The control efficiency of a VOC Emission Control System as specified in paragraph (C)(2) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by the USEPA Test Methods 25, 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable. USEPA Test Method 18 or ARB Method 432 shall be used to determine emissions of Exempt Compounds.

(3) For VOC Emission Control Systems that consist of a single VOC emission collection device connected to a single VOC emission control device, the overall capture and control efficiency shall be calculated by using the following equation:

$CE_{CAPTURE\ AND\ CONTROL}$	=	$[CE_{CAPTURE} \times CE_{CONTROL}]/100$
WHERE:		
$CE_{CAPTURE\ AND\ CONTROL}$	=	Overall Capture and Control Efficiency, in percent
$CE_{CAPTURE}$	=	Capture Efficiency of the collection device, in percent, as determined in section (E)(2)(a)
$CE_{CONTROL}$	=	Control Efficiency of the control device, in percent, as determined in section (E)(2)(b)

(4) Multiple Test Methods

(a) When more than one test method or set of methods are 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 the rule.

See SIP Table at www.avaqmd.ca.gov

(Adopted January 4, 1991)(Amended January 13, 1995)

RULE 1153. COMMERCIAL BAKERY OVENS

(a) Applicability

This rule controls volatile organic compound (VOC) emissions from commercial bakery ovens with a rated heat input capacity of 2 million BTU per hour or more and with an average daily emission of 50 pounds or more of VOC.

(b) Definitions

For the purpose of this rule the following definitions shall apply:

(1) AVERAGE DAILY EMISSIONS is the product of the total calendar year emissions (in tons/year) divided by the number of days the oven was employed for production during that year.

(2) BAKERY OVEN is an oven for baking bread or any other yeast leavened products by convection.

(3) BASE YEAR is the calendar 1989 or any subsequent calendar year in which the average daily emissions are 50 pounds or more per day.

(4) EMISSIONS are any VOC formed and released from the oven as a result of the fermentation and baking processes of yeast leavened products.

(5) EXEMPT COMPOUNDS are any of the following compounds which have been determined to be non-precursors of ozone:

(A) Group I (General)

chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
trifluoromethane (HFC-23)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-143)
1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)
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

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

(B) Group II

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. By January 1, 1996, production of chlorofluorocarbons (CFC), 1,1,1-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulation Title 40, Part 82 (December 10, 1993).

(6) EXISTING OVEN is an oven that was constructed and commenced operation prior to January 1, 1991.

(7) FERMENTATION TIME is the elapsed time between adding yeast to the dough or sponge and placing it into the oven, expressed in hours.

(8) LEAVEN is to raise a dough by causing gas to permeate it.

(9) VOLATILE ORGANIC COMPOUNDS (VOC) is any volatile compound containing the element carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, methane, and exempt compounds.

(10) YEAST PERCENTAGE is the pounds of yeast per hundred pounds of total recipe flour, expressed as a percentage.

(c) Requirements

(1) No person shall operate an existing bakery oven unless VOC emissions are reduced by at least:

(A) 70 percent by weight (as carbon) for an oven with a base year average daily VOC emissions of 50 pounds or more, but less than 100 pounds.

(B) 95 percent by weight (as carbon) for an oven with a base year average daily VOC emissions of 100 pounds or more.

(2) No person shall operate a new bakery oven unless VOC emissions are reduced by at least 95 percent by weight (as carbon) if the uncontrolled average daily VOC emissions are 50 pounds or more.

(d) Compliance Schedule

No person shall operate a bakery oven subject to this rule unless the following increments of progress are met:

(1) For bakery ovens subject to subparagraph (c)(1)(A):

(A) By January 1, 1992, submit required applications for permits to construct and operate.

(B) By July 1, 1993, demonstrate compliance with subparagraph (c)(1)(A).

(2) For bakery ovens subject to subparagraph (c)(1)(B):

(A) By January 1, 1993, submit required applications for permits to construct and operate.

(B) By July 1, 1994, demonstrate compliance with subparagraph (c)(1)(B).

(3) For bakery ovens subject to paragraph (c)(2) be in compliance by July 1, 1992 or by the date of installation, whichever is later.

(e) Alternate Compliance Schedule

The paragraph (d)(1) and (d)(2) compliance deadlines may be postponed by one year if the owner of a bakery oven elects to replace the existing oven with a new one. Such election must be made by January 1, 1992 via a compliance plan submitted to, and subject to approval of, the Executive Officer or his designee. In approving such an election, the Executive Officer may impose interim conditions or control measures on the existing oven in order to assure compliance pending the installation or construction of the new, replacement oven.

(f) Exemptions

The provisions of subdivisions (c) and (d) do not apply to any existing bakery oven that emits less than 50 pounds of VOC per operating day on an uncontrolled basis. Daily VOC emissions shall be determined according to the calculation procedures of Attachment A, or according to any test methods specified in subdivision (h).

(g) Recordkeeping Requirements

Any person operating a bakery oven subject to this rule and claiming an exemption under subdivision (f) shall maintain a daily record of operations, including, but not limited to, the amount of raw material processed, yeast percentage, fermentation time, and the type of product baked. Such records shall be retained in the owner's or operator's files for a period of not less than two years.

(h) Determination of Efficiency of Emission Control System

(1) USEPA Test Method 25, or SCAQMD Test Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) shall be used to determine compliance with this rule. Other test methods reviewed by the staffs of the SCAQMD, California Air Resources Board, and the USEPA, and approved in writing by the District Executive Officer may also be used to determine the efficiency of the emission control system.

(2) Multiple Test Methods

When more than one test method or set of test methods are 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 the rule.

(3) All test methods referenced in this section shall be the most recent approved version.

ATTACHMENT A

Yt*	Pounds VOC/ton Bakery Product	Yt*	Pounds VOC/ton Bakery Product
1.0	0.8488	16.0	7.5176
1.5	1.0711	16.5	7.7399
2.0	1.2934	17.0	7.9622
2.5	1.5157	17.5	8.1845
3.0	1.7380	18.0	8.4068
3.5	1.9603	18.5	8.6291
4.0	2.1826	19.0	8.8514
4.5	2.4049	19.5	9.0737
5.0	2.6272	20.0	9.2959
5.5	2.8495	20.5	9.5182
6.0	3.0718	21.0	9.7405
6.5	3.2941	21.5	9.9628
7.0	3.5163	22.0	10.1851
7.5	3.7386	22.5	10.4074
8.0	3.9609	23.0	10.6297
8.5	4.1832	23.5	10.8520
9.0	4.4055	24.0	11.0743
9.5	4.6278	24.5	11.2966
10.0	4.8501	25.0	11.5189
10.5	5.0724	25.5	11.7412
11.0	5.2947	26.0	11.9635
11.5	5.5170	26.5	12.1857
12.0	5.7393	27.0	12.4080
12.5	5.9616	27.5	12.6303
13.0	6.1839	28.0	12.8526
13.5	6.4061	28.5	13.0749
14.0	6.6284	29.0	13.2972
14.5	6.8507	29.5	13.5195
15.0	7.0730	30.0	13.7418
15.5	7.2953		

* Yt = (yeast percentage) x (fermentation time)
If yeast is added in 2 steps, Yt = (initial yeast percentage) (total fermentation time) + (remaining Yeast percentage) (remaining fermentation time)

5/24/94

(Adopted March 6, 1987)(Amended April 3, 1987)(Amended August 3, 1990)
(Amended December 7, 1990) (Amended August 2, 1991)(Amended July 10, 1992)
(Amended May 13, 1994)

RULE 1162 - POLYESTER RESIN OPERATIONS

(a) Applicability

This rule shall apply to all polyester resin operations that fabricate, rework, repair, or touch-up products for commercial, military, or industrial use including, but not limited to, boats, tubs, pools, shower enclosures, spas, bathroom fixtures, jigs, tools, molds, air pollution control equipment, sewage treatment equipment, storage tanks, transportation parts, and other industrial and consumer products.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) AIRLESS SPRAY is a coating application system in which the coating fluid is supplied to the gun under fluid pressure and air is not added to the gun.

(2) AIR-ASSISTED AIRLESS SPRAY is a coating application system in which the coating fluid is supplied to the gun under fluid pressure and air is combined at the spray cap.

(3) CORROSION-RESISTANT MATERIALS are polyester resin materials used to make products for corrosion resistant applications such as tooling, fuel or chemical tanks and boat hulls.

(4) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I

chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
trifluoromethane (HFC-23)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)

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

(B) Group II

methylene chloride
carbon tetrachloride
1,1,1-trichloroethane (methyl chloroform)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

Use of Group II compounds may be restricted in the future because they are either toxic, potentially toxic, or upper-atmosphere ozone depleters, or cause other environmental impacts. Specifically, the District Board has established a policy to phase out chlorofluorocarbons (CFCs), methyl chloroform (1,1,1-trichloroethane or TCA), and carbon tetrachloride by December 31, 1995.

(5) FIRE RETARDANT MATERIALS are polyester resin materials used to make products that are resistant to flame or fire.

(6) GEL COAT is a polyester resin surface coating, either pigmented or clear, that provides a cosmetic enhancement and improves resistance to degradation from exposure to the elements.

(7) GENERAL PURPOSE POLYESTER RESINS are materials that are not corrosion resistant, fire retardant, high strength, vapor suppressed, or gel coats.

(8) HIGH-STRENGTH MATERIALS are polyester resins which have casting tensile strength of 10,000 psi or more and which are used for manufacturing of high performance boats and skis.

(9) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a coating application system which is operated at air pressure of between 0.1 and 10 pounds per square inch gauge (psig) at the air cap of the spray gun.

(10) MONOMER is a relatively low-molecular-weight organic compound such as styrene that combines with itself, or other similar compounds, by a cross-linking reaction to become a cured thermosetting resin.

(11) POLYESTER RESIN MATERIALS are unsaturated polyester resins, such as isophthalic, orthophthalic, halogenated, bisphenol A, vinyl ester, or furan resins; cross-linking agents; catalysts; gel coats; inhibitors; accelerators; promoters; and any other material containing VOC used in polyester resin operations.

(12) POLYESTER RESIN OPERATIONS fabricate, rework, repair, or touch-up products for commercial, military, or industrial use by mixing, pouring, hand laying-up, impregnating, injecting, forming, winding, spraying, and/or curing by using unsaturated polyester resin materials.

(13) PULTRUSION is a process where continuous roving strands are moved through a strand-tensioning device into a resin bath for impregnation and then passed through a heated die for curing.

(14) REPAIR is that portion of the fabrication process that requires the addition of polyester resin materials to portions of a previously fabricated product in order to mend damage.

(15) TOUCH-UP is that portion of the process that is necessary to cover minor imperfections.

(16) VAPOR SUPPRESSED RESIN is a polyester resin material which contains additives to reduce VOC evaporation loss to less than sixty (60) grams per square meter of surface area as determined and certified by resin manufacturers.

(17) VOLATILE ORGANIC COMPOUND (VOC) means any volatile chemical compound that contains the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, ammonium carbonate, and exempt compounds.

(c) Requirements

(1) For each process, a person operating a polyester resin operation shall comply with either the material requirements or one of the applicable process requirements set forth below:

(A) Material Requirements

A person shall not use a polyester resin material in a polyester resin operation which has a monomer content in excess of the limits specified in the Table below.

Polyester Resin Materials	Monomer Content in Polyester Resin Materials as Applied (By Weight Percent)
General Purpose Polyester Resin	35
Corrosion-Resistant	48
Fire Retardant	42
High Strength	48
Clear Gel Coat	50
Pigmented Gel Coat	45

(B) Process Requirements

(i) The weight loss of polyester materials shall be less than four (4) percent when a closed-mold system is used.

(ii) When a vapor suppressed resin is used, the weight loss from VOC emissions shall not exceed sixty (60) grams per square meter of exposed surface area during resin polymerization.

(iii) A pultrusion operation shall have covered wet-out baths. From the exit of the bath to the die all but 18 inches of the preform distance shall be enclosed to minimize air flow. The weight loss of polyester materials shall be less than three (3) percent in a pultrusion operation.

(2) For spraying operations, in addition to complying with the requirements specified in paragraph (c)(1), a person shall use high-volume-low-pressure (HVLP), airless, air-assisted airless, or electrostatic spray equipment. For touch-up and repair, a hand-held, air-atomized spray gun which has a container for resin as part of the gun may be used.

(3) Any person operating a polyester resin operation shall keep the resin materials in closed containers except when filling or emptying the container.

(4) Solvent cleaning operations shall comply with Rule 1171 - Solvent Cleaning Operations.

(d) Control Equipment

In lieu of complying with the requirements of paragraph (c)(1) and (c)(2), a person may install and operate an emission control system which is designed and operated in accordance with guidelines published in the 20th Edition of the Industrial Ventilation Manual by the American Conference of Governmental Industrial Hygienists for the collection of fugitive emissions from polyester resin materials, and which system is approved by the Executive Officer's designee, and has an overall capture and control efficiency of 90 percent or more on a mass basis.

(e) Recordkeeping Requirements

(1) A person subject to the provisions of this rule shall maintain daily records. Such records shall be made available to the Executive Officer' designee upon request and ~~must~~ shall be kept for not less than two years. The records shall contain:

(A) The manufacturer's name, the type and amount of each of the polyester resin materials used; and

(B) The weight (in percent) of monomer for all polyester resin materials, and, if adding VOC-containing materials to the polyester resin, the amount of VOC-containing materials, in grams, and the VOC content in grams per liter, of VOC-containing materials; and

(C) For vapor suppressed resins, a certificate from a resin manufacturer for each resin type; and

(D) For closed-mold and pultrusion systems, the weight loss (in percent) of polyester resin materials for each application.

(2) Records for cleaning solvents subject to Rule 1171 - Solvent Cleaning Operations shall be maintained pursuant to Rule 109.

(3) Any person using an emissions control system as a means of complying with this rule shall maintain daily records of all key system parameters, including hours of operation, temperatures, pressures and flow rates, that are necessary to ensure control efficiency requirements.

(4) The records shall also contain the manufacturer's name, type and amount of corrosion resistant, fire retardant, high strength materials and gel coats used, which are temporarily exempt from process requirements until July 1, 1994.

(f) Methods of Analysis

The VOC content of each of the polyester resin materials shall be determined by using USEPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coating, Code of Federal Regulations Title 40, Appendix A, utilizing Procedure B of ASTM Method D2369), or the SCAQMD Method 304. The monomer content shall be determined by Method 312, and weight loss of polyester resin materials shall be determined by Method 309; and the exempt compound's content shall be determined by Methods 302 and 303 in the South Coast Air Quality Management District's (SCAQMD) Laboratory Methods of Analysis for Enforcement Samples.

(g) Test Methods

(1) The efficiency of the control device and the VOC content measured and calculated as carbon in the control device exhaust gases shall be determined by USEPA's Test Method 18, or Air Resources Board (ARB) Method 422 for the determination of emissions of Exempt Compounds and USEPA's Test Methods 25, 25A, or SCAQMD's Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) for the determination of total organic compound emissions. Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of the rule.

(2) The following classes of compounds: 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-contained perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine, will be analyzed as exempt compounds for compliance with subdivision (e) at such time manufacturers specify which individual compounds are used in the coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA and the SCAQMD, that can be used to quantify the amounts of each exempt compound.

(h) Exemptions

(1) Until July 1, 1994, the provisions of paragraphs (c)(1) and (c)(2) and subdivision (d) shall not apply to: corrosion resistant, fire retardant, and high strength materials.

(2) Until July 1, 1994, The provisions of (c)(1) shall not apply to gel coats.

(Adopted July 8, 1988)(Amended May 5, 1989)(Amended March 2, 1990)
(Amended December 7, 1990)(Amended January 13, 1995)

RULE 1164. SEMICONDUCTOR MANUFACTURING

(a) Applicability

This rule is applicable to all direct, indirect, and support stations associated with the manufacture or production of semiconductor devices. Semiconductor device manufacturing includes all processing from crystal growth through circuit separation and encapsulation, including wafer production, oxidation, photoresist operation, etching, doping, and epitaxial growth operation.

(b) Definitions

For the purpose of this rule, the following definitions apply:

(1) APPROVED EMISSION CONTROL SYSTEM means any system used to reduce VOC emissions and consists of a collection and control device, which are approved in writing by the Executive Officer. The emission control system shall have an overall efficiency of at least 90 percent.

(2) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I (General)

trifluoromethane (HFC-23)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
tetrafluoroethane (HFC-134a)
1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)
chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
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
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetralfuoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper atmospheric ozone depleters, or cause other environmental impacts. By January 1, 1996, production of chlorofluorocarbons (CFC), 1,1,1-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulations Title 40, Part 82 (December 10, 1993).

(3) FREEBOARD HEIGHT is the distance from the top of the solvent or solvent overflow drain to the top of the sink or reservoir.

(4) FREEBOARD RATIO is the freeboard height divided by the smaller of the length or width of the sink or reservoir.

(5) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS, is the weight of VOC per combined volume of VOC and coating solids, and can be calculated by:

Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds = $\frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$

Where:
W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters

(6) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and can be calculated by:

$$\text{Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters

(7) MASKING is applying a photoresist maskant material or overlaying a stencil to apply, impress, transfer, or otherwise effect a pattern on or into another substance.

(8) PHOTORESIST MASKANT, MASKANT, OR PHOTORESIST is a coating applied directly to a component to protect surface areas when chemical milling, etching, or other chemical surface operations are performed on the component.

(9) PHOTORESIST OPERATION is a process for the application and development of photoresist masking solution on a wafer, including preparation (except primary cleaning), soft bake, develop, hard bake, and stripping, and can be generally subdivided as follows:

(A) NEGATIVE PHOTORESIST OPERATION is a process where the maskant hardens when exposed to light and the unhardened maskant is stripped, exposing the wafer surface for etching.

(B) POSITIVE PHOTORESIST OPERATION is a process where the maskant softens when exposed to light and the softened maskant is stripped, exposing the wafer surface for etching.

(10) SEMICONDUCTOR MANUFACTURE is any process or operation performed to produce semiconductor devices or related solid state devices. It may include but is not limited to the manufacturing of diodes, zeners, stacks, rectifiers, integrated microcircuits, transistors, solar cells, light-sensing devices, and light-emitting devices.

(11) SOLVENT is any material containing VOC or any exempt compound that dissolves or can dissolve another substance. Developers and stripping agents that contain VOC or any exempt compound are included as solvents.

(12) SOLVENT CLEANING STATION is a workplace equipped to remove surface contaminants using a liquid or vapor solvent containing volatile organic compounds.

(13) STRIPPING is the removal of spent photoresist maskant from the product after etching, or the removal of oxide stencil from the product after diffusion.

(14) VOC COMPOSITE PARTIAL PRESSURE is the sum of the partial pressures of the compounds defined as VOCs.

VOC Composite Partial Pressure is calculated as follows:

$$PP_c = \sum_{i=1}^{n} \frac{\frac{W_i}{MW_i} \times VP_i}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

Where:

W_i = Weight of the "i"th VOC compound, in grams

W_w = Weight of water, in grams

W_e = Weight of exempt compound, in grams

MW_i = Molecular weight of the "i"th VOC compound, in grams per gram-mole

MW_w = Molecular weight of water, in grams per gram-mole

MW_e = Molecular weight of exempt compound, in grams per gram-mole

PP_c = VOC composite partial pressure at 20^oC, in mm Hg

VP_i = Vapor pressure of the "i"th VOC compound at 20^oC, in mm Hg

(15) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound containing the element carbon excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

(c) Requirements

(1) Solvent Cleaning Stations

A person shall not operate a solvent cleaning station at a semiconductor manufacturing facility unless the following requirements are satisfied.

(A) All heated or unheated reservoirs, sinks, tanks and containers which transfer, store, or hold VOC-containing material shall be provided with a full cover or an approved emission control system. These covers must remain closed except while production, sampling, maintenance, or loading or unloading procedures require operator access.

(B) All heated or unheated reservoirs and sinks holding VOC-containing fluids with a VOC composite partial pressure of 33 mm Hg or less at 20ºC (68ºF), shall have a freeboard ratio greater than or equal to 1.0, or be equipped with an approved emission control system.

(C) Solvent flow of VOC-containing materials shall be applied in a continuous unbroken stream and in a manner which shall prevent liquid loss resulting from splashing.

(D) Liquid solvent leaks of 3 drops per minute or more shall be repaired within 24 hours of detection or the equipment shall be shut down until replaced or repaired.

(E) All equipment at a solvent cleaning station shall be operated and maintained in proper working order.

(2) Photoresist Operations

A person shall not allow photoresist operations at a semiconductor manufacturing facility unless the VOC-containing vapors are vented to an approved emission control system.

(3) Cleanup Solvents

A person shall not use VOC-containing materials for the purpose of cleaning equipment at a semiconductor manufacturing facility unless the following requirements are satisfied.

(A) The VOC content of the fluid shall not exceed 200 grams per liter (1.7 pounds per gallon) of material; or the VOC composite partial pressure shall not exceed 33 mm Hg (0.64 psia) at a temperature of 20ºC (68ºF); or the components being cleaned are totally enclosed during the washing, rinsing, and draining processes; or the cleanup solvents are flushed or drained in a manner that does not allow evaporation into the atmosphere; and

(B) only nonabsorbent, closed containers shall be used for the storage, transfer, or disposal of all VOC-containing accessories which

include, but are not limited to, cloth, paper, and other materials clearly used for cleanup with solvents.

(4) Alternative Emission Control Plan

An owner/operator may achieve compliance with subparagraph (c)(1) and/or (c)(2) by means of an Alternative Emission Control Plan pursuant to Rule 108.

(5) Recordkeeping

Notwithstanding the provisions of subdivision (g), records shall be maintained pursuant to Rule 109.

(d) Prohibition of Specifications

A person shall not specify the use of any VOC-containing material for any process or operation within the SCAQMD, subject to the provisions of this rule, that does not meet the requirements of this rule. This prohibition shall apply to all written or oral contracts.

(e) Test Methods

(1) Determination of VOC Content

The VOC content of materials subject to the provisions of this rule shall be determined by the following the methods:

(A) United States Environmental Protection Agency (USEPA) Reference Method 24 (Code of Federal Regulations Title 40 Part 60, Appendix A). The exempt compound content shall be determined by SCAQMD Method 303 (Determination of Exempt Compounds) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,

(B) SCAQMD Method 304 [Determination of Volatile Organic Compounds (VOC) in Various Materials] contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(C) Exempt Perfluorocarbon Compounds

The following classes of compounds:

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 sulfur bonds only to carbon and fluorine,

will be analyzed as exempt compounds for compliance with paragraph (c), only when manufacturers specify which individual compounds are used in the coating formulation. In addition, the manufacturers must identify the USEPA, the California Air Resources Board, and the SCAQMD approved test methods used to quantify the amount of each exempt compound.

(2) Determination of VOC Composite Partial Pressure

The identity and quantity of components in solvents shall be determined by SCAQMD Method 308 (Quantitation of Compounds by Gas Chromatography) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual. The VOC composite partial pressure is calculated using equation in paragraph (b)(14).

(3) Determination of Efficiency of Emission Control System

(A) The efficiency of the collection device of the emission control system as specified in subparagraph (c)(1)(A) and (c)(1)(B) shall be determined by the USEPA method cited in 55 Federal Register 26865 (June 29, 1990), or any other method approved by the USEPA, the California Air Resources Board, and the SCAQMD.

(B) The efficiency of the control device of the emission control system as specified in subparagraph (c)(1)(A) and (c)(1)(B),and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by USEPA Test Methods 25, 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of exempt compounds.

(4) Multiple Test Methods

When more than one test method or set of test methods are 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 the rule.

(5) All test methods referenced in this section shall be the most recent approved version.

(f) Rule 442 Applicability

Any operation or facility which is exempt from all or a portion of this rule shall comply with the provisions of Rule 442.

(g) Exemptions

The provisions of this rule shall not apply to facilities that produce less than five pounds of total VOC emissions over any continuous 24-hour period.

(**Adopted**: 04/07/89; **Amended**: 02/01/91; **Amended**: 02/01/91; **Amended**: 07/19/91; **Amended**: 08/02/91; **Amended**: 12/04/92; **Amended**: 12/10/93; **Amended**: 04/11/97; **Amended**: 01/19/10; **Amended**: 09/20/11)

Rule 1168
Adhesive and Sealant Applications

(A) General

(1) The purpose of this rule is to reduce emissions of Volatile Organic Compounds (VOCs) and to eliminate emissions of chloroform, ethylene dichloride, methylene chloride, perchlorethylene, and trichlorethylene from the application of Adhesives, Adhesive Primers, Sealants, Sealant Primers or any other Primers.

(2) This rule shall apply to all commercial and industrial sales and applications of Adhesives, Adhesive Primers, Sealants, Sealant Primers, or any other Primers, unless otherwise specifically exempted by this rule.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) Acrylonitrile-Butadiene-Styrene (ABS) - A Plastic made by reacting monomers of acrylonitrile, butadiene, and styrene and is normally identified with an ABS marking.

(2) Adhesive - Any substance that is used to bond one surface to another surface by attachment. Adhesives include, Adhesive Bonding Primers, Adhesive Primers, Adhesive Primers for Plastics and any other Primer used with Adhesives.

(3) Adhesive Bonding Primer - An Adhesive applied to a surface to improve the bond of subsequent Adhesives and sometimes to inhibit corrosion.

(4) Adhesive Primer - A coating applied to a substrate, prior to the application of an Adhesive, to provide a bonding surface.

(5) Adhesive Primer for Plastic - A material applied to a Plastic substrate alone or before applying an Adhesive in order to obtain better adhesion.

(6) Adhesive Solid - The nonvolatile portion of an Adhesive that remains after heating a sample of the material at 110^{o}C for one hour.

(7) Aerosol Adhesive - Any Adhesive packaged as an aerosol product in which the spray mechanism is permanently housed in a non-refillable can designed for hand-held application without the need for ancillary hoses or spray equipment. Aerosol Adhesives include special purpose spray Adhesives, mist spray

Adhesives, and web spray Adhesives as defined by 17 Cal. Code Regs. §§94507 et seq.

(8) Aerosol Spray Can - A hand held, pressurized, non-refillable container which expels Adhesives from the container in a finely divided spray when a valve on the container is depressed.

(9) Aerospace Component - The fabricated part, assembly of parts, or completed unit of any Aircraft or Space Vehicle (excluding tires), and includes models, mock-ups, prototypes, and test coupons.

(10) Aircraft - Any machine designed to travel through the air, without leaving the Earth's atmosphere, whether heavier or lighter than air, including airplanes, balloons, dirigibles, helicopters, and missiles.

(11) Aircraft Tire Repair - The repair and retreading of used tires used on Aircraft. This includes the repair of damage to the tire casing, removal of old tread Rubber and tread reinforcing materials, and application of new tread and tread reinforcing materials.

(12) Air Pollution Control Officer (APCO) - The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750 and his or her designee.

(13) Architectural - Pertaining to stationary structures including buildings, houses, and mobile homes, and their appurtenances.

(14) Architectural Application - The use of an Adhesive, Sealant, Adhesive Primer, or Sealant Primer on stationary structures, including mobile homes, and their appurtenances. Appurtenances to an Architectural structure include, but are not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts and windows.

(15) Architectural Sealant or Sealant Primer - Any Sealant or Sealant Primer applied to stationary structures, including mobile homes, and their appurtenances. Appurtenances to an Architectural structure include, but are not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts and windows.

(16) California Air Resources Board (CARB) - The California State Air Resources Board the powers and duties of which are described in Part 2 of Division 26 of the California Health & Safety Code (commencing with §39500).

(17) Carpet Pad Adhesive - An Adhesive used for the installation of carpet pad (or cushion) beneath a carpet.

(18) Ceramic Tile Adhesive - An Adhesive used in the installation of Ceramic Tile products.

(19) Ceramic Tiles - A ceramic surfacing unit made from clay or a mixture of clay and other materials.

(20) Chlorinated Polyvinyl Chloride (CPVC) - Plastic which is a polymer of the chlorinated polyvinyl monomer that contains 67 percent chlorine and is normally identified with a CPVC marking.

(21) Coating Solid - The nonvolatile portion of a coating that remains after heating a sample of the material at 110^{o}C for one hour.

(22) Computer Diskette Manufacturing - The process where the fold-over flaps are glued to the body of a vinyl jacket.

(23) Contact Adhesive - An Adhesive applied to two (2) separate surfaces, allowed to dry, and brought together for adhesion and bonding with subsequent pressure.

(24) Cove Base Installation Adhesive - An Adhesive used during the installation of cove base (or wall base), which is generally made of vinyl or Rubber, on a wall or vertical surface at floor level.

(25) Cyanoacrylate Adhesive - A single-component Reactive Diluent Adhesive that contains at least 85 percent by weight ethyl, methyl, methoxymethyl or other functional groupings of cyanoacrylate.

(26) District - The Antelope Valley Air Quality Management District the geographical area of which is described in District Rule 103.

(27) Drywall Adhesive - An Adhesive used during the installation of gypsum dry wall to studs or solid surfaces.

(28) Exempt Compounds - A compound identified as exempt in 40 CFR 51.100(s).

(29) Facility - Any permit unit or grouping of permit units or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same Person (or by Persons under common control). Such above-described groupings, if not contiguous, but connected only by land carrying a pipeline, shall not be considered one Facility.

(30) Fiberglass - Fine filaments of glass.

(31) Flexible Vinyl - Non-rigid polyvinyl chloride Plastic with a five (5) percent by weight plasticizer content.

(32) Floor Covering Installation Adhesive (Indoor) - Any Adhesive intended by the manufacturer for use in the installation of vinyl backed carpet, resilient sheet and roll or artificial grass. Adhesives used to install ceramic tile, perimeter bonded Sheet Vinyl, Flexible Vinyl, indoor carpet, Rubber Floor, Subfloor. VCT and Asphalt Tile and wood flooring are excluded from this category.

(33) Floor Covering Installation Adhesive (Outdoor) - Any Adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use. Outdoor Carpet is excluded from this category.

(34) Foam - A rigid or spongy cellular mass with gas bubbles dispersed throughout.

(35) Glue - A hard gelatin obtained from hides, tendons, cartilage, bones, etc., of animals.

(36) Grams of VOC Per Liter of Adhesive, Less Water and Less Exempt Compounds - The weight of VOC per combined volume of VOC and Adhesive or Sealant solids, and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Adhesive, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:
- W_s = weight of volatile compounds, in grams
- W_w = weight of water, in grams
- W_{es} = weight of exempt compounds, in grams
- V_m = volume of material, in liters
- V_w = volume of water, in liters
- V_{es} = volume of exempt compounds, in liters

For Adhesives or Sealants that contain Reactive Diluents, the VOC content of the Adhesive or Sealant is determined after curing. The grams of VOC per liter of Adhesive or Sealant (except a Low-Solids Adhesive or Sealant) shall be calculated by the following equation:

$$\text{Grams of VOC per Liter of Adhesive, Less Water and Less Exempt Compunds} = \frac{W_{rs} - W_{rw} - W_{res}}{V_{rm} - V_{rw} - V_{res}}$$

Where:
- W_{rs} = weight of volatile compounds not consumed during curing, in grams
- W_{rw} = weight of water not consumed during curing, in grams
- W_{res} = weight of exempt compounds not consumed during curing, in grams
- V_{rm} = volume of material prior to reaction, in liters
- V_{rw} = volume of water not consumed during curing, in liters
- V_{res} = volume of exempt compounds not consumed during curing, in liters

(37) Grams of VOC Per Liter of Material - The weight of VOC per volume of material calculated by the following equation:

$$Grams\ of\ VOC\ per\ Liter\ of\ Material = \frac{W_s - W_w - W_{es}}{V_m}$$

Where: W_S = weight of volatile compounds, in grams
W_W = weight of water, in grams
W_{es} = weight of exempt compounds, in grams
V_m = volume of material, in liters

(38) Hand Application Methods - The application of Adhesive or Sealant by manually held equipment. Such equipment includes paint brush, hand roller, trowel, spatula, dauber, rag, sponges, and mechanically- and/or pneumatic-driven syringes without atomization of the materials.

(39) High-Volume, Low-Pressure (HVLP) Spray - Spray equipment permanently labeled as such and which is designed and operated between 0.1 and 10 pounds per square inch, gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

(40) Indoor Carpet Adhesive - An Adhesive used during the installation of a carpet that is in an enclosure and is not exposed to ambient weather conditions during normal use.

(41) Light Curable Adhesives and Sealants - Single-component reactive Adhesives and Sealants that cure upon exposure to visible-light, ultra-violet light, or to an electron beam.

(42) Low-Solids Adhesive - An Adhesive which has less than one (1) pound (120 grams) of solids per gallon of material.

(43) Low-Solids Adhesive Primer - An Adhesive Primer which has less than one (1) pound (120 grams) of solids per gallon of material.

(44) Marine Deck Sealant - A Sealant intended by the manufacturer to be applied to wooden marine decks.

(45) Marine Deck Sealant Primer - Any Sealant Primer intended by the manufacturer to be applied to wooden marine decks.

(46) Metal to Urethane/Rubber Molding or Casting Adhesive - Any Adhesive intended by the manufacturer to bond metal to high density or elastomeric urethane or molded Rubber materials, in heater molding or casting processes, to fabricate products such as rollers for computer printers or other paper handling equipment.

(47) Modified Bituminous Materials - Materials obtained from natural deposits of asphalt or residues from the distillation of crude oil petroleum or coal which

consist mainly of hydrocarbons, and include, but are not limited to, asphalt, tar, pitch and asphalt tile that are soluble in carbon disulfide.

(48) Modified Bituminous Sealant Primer - Primer consisting of bituminous materials and a high flash solvent used to prepare a surface by (1) improving the adhesion and (2) absorbing dust from the surface for Adhesive or flashing cement bitumen membrane.

(49) Motor Vehicle Adhesive - An Adhesive, including glass bonding Adhesive, used at a Facility that is not an automobile or light-duty truck assembly coating Facility, applied for the purpose of bonding two (2) vehicle surfaces together without regard for the substrates involved.

(50) Motor Vehicle Glass Bonding Adhesive Primer - A Primer, used at a Facility that is not an automobile or light-duty truck assembly coating Facility, applied to windshield or other glass, or to body openings, to prepare the glass or body opening for the application of glass bonding Adhesives or the installation of Adhesive bonded glass. Motor vehicle glass bonding Primer includes glass bonding/cleaning Primers that perform both functions (cleaning and priming of the windshield or other glass, or body openings) prior to the application of the Adhesive or the installation of Adhesive bonded glass.

(51) Motor Vehicle Weatherstrip Adhesive - An Adhesive, used at a Facility that is not an automobile or light-duty truck assembly coating Facility, applied to weatherstripping materials for the purpose of bonding the weatherstrip material to the surface of the vehicle.

(52) Multipurpose Construction Adhesive - Any Adhesive to be used for the installation or repair of various construction materials, including but not limited to: Drywall, Subfloor, Panel, Fiberglass Reinforced Plastic (FRP), ceiling tile and acoustical tile.

(53) Nonmembrane Roof Sealant - Any Sealant to be used for installation or repair of nonmembrane roofs. This category includes Plastic or asphalt roof cement, asphalt roof coatings, and cold application cement.

(54) Orthotics and Prosthetics - Medical devices designed and fabricated to address human neuromuscular and structural skeletal problems in order to activate, supplement, or replace weakened, atrophied or missing limbs.

(55) Outdoor Carpet Adhesive - An Adhesive used during the installation of carpet that is not in an enclosure and is exposed to ambient weather conditions during normal use.

(56) Panel Adhesive - An Adhesive used for the installation of plywood, pre-decorated hardboard (or tileboard), Fiberglass reinforced plastic (FRP), and similar pre-decorated or non-decorated panels to studs or solid surfaces.

(57) Percent VOC by Weight - The ratio of the weight of the VOC to the weight of the material, expressed as a percentage of VOC by weight. The percent VOC by weight can be calculated as follows:

$$Percent\ VOC\ by\ Weight = \frac{W_v}{W} \times 100$$

Where: W_V = weight of the VOCs, in grams
W = weight of material in grams

(58) Perimeter Bonded Sheet Flooring Installation - Installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip of up to four (4) inches wide around the perimeter of the sheet flooring.

(59) Person - Any individual, firm, association, organization, partnership, business, trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local governmental agency or public district or any other officer or employee thereof. Person also means the United States or its agencies to the extent authorized by federal law.

(60) Plastic Foam - Foam constructed of Plastics.

(61) Plastics - Synthetic materials chemically formed by the polymerization of organic (carbon-based) substances. Plastics are usually compounded with modifiers, extenders, and/or reinforcers. They are used to produce pipe, solid sheet, film, or bulk products.

(62) Plastic Solvent Welding Adhesive - The use of Adhesives made of resins and solvents which are used to dissolve the surfaces of Plastic, except ABS, CPVC, and PVC Plastic, to form a bond between mating surfaces.

(63) Plastic Solvent Welding Adhesive (ABS) - An Adhesive that is intended by the manufacturer to weld ABS plastic.

(64) Plastic Solvent Welding Adhesive (CPVC) - An Adhesive intended by the manufacturer for welding of chlorinated polyvinyl chloride plastic, and labeled as such.

(65) Plastic Solvent Welding Adhesive Primer - Any Primer intended by the manufacturer for use to prepare Plastic substrates prior to bonding or welding.

(66) Plastic Solvent Welding Adhesive (PVC) - An Adhesive intended by the manufacturer for use in the welding of Polyvinyl Chloride Plastic pipe.

(67) Polyvinyl Chloride (PVC) - Plastic which is a polymer of the chlorinated vinyl monomer that contains 57 percent chlorine and is normally identified with a PVC marking.

(68) Porous Material - A substance which has tiny openings, often microscopic, in which fluids may be absorbed or discharged.

(69) Primer - A material applied to a substrate to improve adhesion of subsequently applied Adhesive.

(70) Reactive Diluent - A liquid which is a VOC during application and one in which, through chemical and/or physical reactions, such as polymerization, 20 percent or more of the VOC becomes an integral part of a finished material.

(71) Reinforced Plastic Composite - Composite material consisting of Plastic reinforced with fibers.

(72) Roadway Sealant - Any Sealant to be applied to public streets, highways, and other surfaces, including but not limited to curbs, berms, driveways, and parking lots.

(73) Roll Coater - A series of mechanical rollers that form a thin coating or Adhesive film on the surface roller, which is applied to a substrate by moving the substrate underneath the roller.

(74) Rubber - Any natural or manmade Rubber substrate, including but not limited to, styrene-butadiene Rubber, polychloroprene (neoprene), butyl Rubber, nitrile Rubber, chlorosulfonated polyethylene and ethylene propylene diene terpolymer.

(75) Rubber Floor Adhesive - The installation of flooring material in which both the back and the top surface are made of synthetic Rubber, and which may be in sheet or tile form.

(76) Sealant - Any material with Adhesive properties that is formulated primarily to fill, seal, or waterproof gaps or joints between two (2) surfaces. Sealants include Sealant Primers and caulks.

(77) Sealant Primer - Any product applied to a substrate, prior to the application of a Sealant, to enhance the bonding surface.

(78) Sheet Rubber Lining Installation Adhesive - The hand application of sheet Rubber lining to metal or Plastic substrates in order to protect the underlying substrate from corrosion or abrasion. These operations also include laminating sheet Rubber to fabric.

(79) Shoe Repair, Luggage and Handbag Adhesive - An Adhesive used to repair worn, torn or otherwise damaged uppers, soles, and heels of shoes, or for making repairs to luggage and handbags.

(80) Single-Ply Roof Membrane Adhesive Primer - Any Primer labeled for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

(81) Single-Ply Roof Membrane Installation/Repair Adhesive - Any Adhesive Sealant to be used for the installation or repair of single-ply roof membrane. Installation includes, but is not limited to attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes, or ducts that protrude through the membrane.

(82) Single-Ply Roof Membrane Sealant - Any Sealant to be used for the installation or repair of single-ply roof membrane to the edge of the roof and applying flashings to vents, pipes, or ducts that protrude through the membrane.

(83) Solvent Welding - The softening of the surfaces of two substrates by wetting them with solvents and/or Adhesives, and joining them together with a chemical and/or physical reaction(s) to form a fused union.

(84) South Coast Air Quality Management District (SCAQMD) - The air quality district created pursuant to Division 26, Part 3, Chapter 5.5 of the California Health & Safety Code (commencing with §40400).

(85) Space Vehicle - A vehicle designed to travel beyond Earth's atmosphere.

(86) Special Purpose Contact Adhesive - A Contact Adhesive that is used to bond all of the following substrates to any surface: melamine covered board, metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, Rubber and wood veneer 1/16 inch or less in thickness.

(87) Structural Glazing Adhesive - Any Adhesive to be used to adhere glass, ceramic, metal, stone, or composite panels to exterior building frames.

(88) Structural Wood Member Adhesive - An Adhesive used for the construction of any load bearing joints in wooden joists, trusses, or beams.

(89) Subfloor Adhesive - An Adhesive used in the installation of subflooring material over floor joists.

(90) Thin Metal Laminating Adhesive - A process of bonding multiple layers of metal to metal or metal to Plastic in the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 mil.

(91) Tire Repair Adhesive - The expanding of a hole, tear, fissure, or blemish in a tire casing by grinding or gouging, applying Adhesive, and filling the hole or crevice with Rubber.

(92) Tire Retread Adhesive - Any Adhesive to be applied to the back of pre-cured tread Rubber and to the casing and cushion Rubber, or to be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

(93) Top and Trim Adhesive - An Adhesive used during the installation of automotive and marine trim, including, but not limited to, headliners, vinyl tops, vinyl trim, sunroofs, dash covering, door covering, floor covering, panel covering and upholstery.

(94) Traffic Marking Tape - Preformed reflective tape to be applied to public streets, highways, and other surfaces, including but not limited to curbs, berms, driveways, and parking lots.

(95) Traffic Marking Tape Adhesive Primer - Any Adhesive Primer intended by the manufacturer to be applied to surfaces prior to installation of Traffic Marking Tape.

(96) Transfer Efficiency - The ratio of the weight or volume of Coating Solids adhering to an object to the total weight or volume, respectively, of Coating Solids used in the application process, expressed as a percentage.

(97) United States Environmental Protection Agency (USEPA) - The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(98) Vinyl Composition Tile (VCT) and Asphalt Tile Adhesive - An Adhesive intended by the manufacturer for the installation of vinyl composite tile or asphalt tile flooring made from thermoplastic resins, fillers and pigments.

(99) Viscosity - The internal friction of a liquid that makes it resistant to flow.

(100) Volatile Organic Compound (VOC) - Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions and those compounds listed in 40 CFR 51.100(s).

(101) Waterproof Resorcinol Glue - A two-part resorcinol-resin-based Adhesive designed for applications where the bond line must be resistant to continuous immersion in fresh or salt water.

(102) Wood Flooring Adhesive - An Adhesive used to install a wood floor surface, which may be in the form of Parquet tiles, Planks, or strip-wood.

(103) Wood Parquet Flooring - Wood flooring in tile form constructed of smaller pieces of wood which are joined together in a pattern by the maker to form the tile.

(104) Wood Plank Flooring - Solid or laminated wood in plank form.

(C) Requirements

(1) After January 1, 1993, a Person shall not apply any Adhesives, Sealants, Adhesive Bonding Primers, Adhesive Primers, Sealant Primers, or any other Primer which have a VOC content in excess of 250 g/L less water and less Exempt Compounds unless otherwise specified in subsection (C)(2).

(2) After September 20, 2011, a Person shall not apply Adhesives, Adhesive Primers, Sealants, Sealant Primers, or any other Primer which have a VOC content in excess of the limits specified in Table 1:

Table 1

General Adhesive Application Processes*	VOC Emission Limit Less Water and Less Exempt Compounds	
	Proposed Limits in g/L	Proposed Limits in lb/gal
Fiberglass	80	0.7
Flexible Vinyl	250	2.1
Floor Covering Installation (Indoor)	150	1.3
Floor Covering Installation (Outdoor)	250	2.1
Metal	30	0.3
Plastic Foams	50	0.4
Porous Material (Except Wood)	50	0.4
Reinforced Plastic Composite	200	1.7
Rubber	250	2.1
Wood	30	0.3
Other Substrates	250	2.1
Specialty Adhesive Application Processes		
Carpet Pad	50	0.4
Ceramic Tile Installation	65	0.5
Computer Diskette Manufacturing	350	2.9
Contact Adhesive	80	0.7
Cove Base Installation	50	0.4
Drywall and Panel	50	0.4
Indoor Carpet	50	0.4
Metal to Urethane/Rubber Molding or Casting	850	7.1
Motor Vehicle	250	2.1
Motor Vehicle Weatherstrip	750	6.3
Multipurpose Construction	70	0.6
Outdoor Carpet	150	1.3
Perimeter Bonded Sheet Vinyl	660	5.5
Plastic Solvent Welding (except ABS, CPVC, and PVC)	250	2.1
Plastic Solvent Welding (ABS)	325	2.7
Plastic Solvent Welding (CPVC)	490	4.1
Plastic Solvent Welding (PVC)	510	4.3
Rubber Floor	60	0.5
Sheet Rubber Lining Installation	850	7.1
Single-Ply Roof Membrane Installation/Repair	250	2.1
Special Purpose Contact Adhesive	250	2.1
Structural Glazing	100	0.8
Structural Wood Member	140	1.7
Subfloor	50	0.4
Thin Metal Laminating	780	6.5
Tire Repair/Retread	100	0.8
Top and Trim	250	2.1
VCT and Asphalt Tile	50	0.4
Waterproof Resorcinol Glue	170	1.4
Wood Flooring	100	0.8

Adhesive Primer Application Processes		
Motor Vehicle Glass Bonding	900	7.5
Plastic Solvent Welding	550	4.6
Single-Ply Membrane	250	2.1
Traffic Marking Tape	150	1.3
Other Adhesive Primer	250	2.1
Sealant Primers		
Architectural - Non Porous	250	2.1
Architectural - Porous	775	6.5
Modified Bituminous	500	4.2
Marine Deck	760	6.3
Other Sealant Primer	750	6.3
Sealants		
Architectural	250	2.1
Marine Deck	760	6.3
Nonmembrane Roof	300	2.5
Roadway	250	2.1
Single-Ply Roof Membrane	450	3.8
Other Sealant	420	3.5

*General adhesive application processes are those not specifically identified in other categories listed below.

If an Adhesive is used to bond dissimilar substrates together the Adhesive with the highest VOC content shall be allowed.

(3) Containers used to dispose of VOC-laden cloth or paper used in stripping cured Adhesives or Sealants shall be closed except when depositing or removing VOC-laden cloth or paper from the container.

(4) Solvent Cleaning Operations: Storage and disposal of VOC-containing materials shall be conducted in accordance with the provisions of District Rule 1171 - *Solvent Cleaning Operations*.

(5) Transfer Efficiency

A Person shall not apply Adhesives or Sealants unless the Adhesive or Sealant is applied with properly operating equipment in accordance with operating procedures specified by either the equipment manufacturer or the APCO. Application of Adhesives shall be accomplished only by the use of one (1) of the following methods:

(a) Electrostatic application;

(b) Flow coat;

(c) Dip coat;

(d) Roll Coater;

(e) HVLP spray;

(f) Hand Application Methods;

(g) Such other Adhesive application methods as are demonstrated to the APCO Officer to be capable of achieving no less efficiency than HVLP method and for which prior written approval of the APCO has been obtained; or

(h) For Adhesives with a Viscosity of 200 centipoise or greater, as applied, airless spray, air-assisted airless spray, and air-atomized spray may also be used.

(6) A Person may comply with the provisions of subsections (C)(1), (C)(2), or (C)(5), or all three, by using approved air pollution control equipment, provided that the VOC emissions from such operations and/or materials are reduced by 85 percent overall, by weight.

(7) A Person may comply with the provisions of subsection (C)(1) and subsection (C)(2) by means of an Alternative Emission Control Plan pursuant to District Rule 108 - *Alternative Emission Control Plans*.

(8) If anywhere on the container of any Adhesive or Sealant, on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the Adhesive or Sealant may be used for any other source specific rule application, for which there is a lower VOC standard, the lowest VOC standard shall apply.

(9) The VOC content of Adhesives and Sealants that are applied with the use of refillable pressurized containers are subject to the VOC limits of this rule.

(D) Recordkeeping Requirements

Notwithstanding provisions of Section (I), records shall be maintained pursuant to District Rule 109 – *Recordkeeping for Volatile Organic Compound Emissions*.

(E) Methods of Analysis

(1) The VOC content of cleaning materials and Adhesives or Sealants shall be determined by using USEPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coating, 40 CFR Part 60, Appendix A, utilizing Procedure B of ASTM Method D2369), or the SCAQMD Method 304.

(2) The Exempt Compound's content shall be determined by Methods 302 and 303 in SCAQMD's "Laboratory Methods of Analysis for Enforcement Samples" or ASTM Method D4475-85.

(3) The VOC content of PVC, CPVC, and ABS pipe cements, Adhesive Primer for Plastic shall be determined by Method 316A in SCAQMD's "Laboratory Method of Analysis for Enforcement Samples."

(4) The VOC content of cyanoacrylate Adhesives shall be determined by Method 316B in SCAQMD's "Laboratory Methods of Analysis for Enforcement Samples."

(F) Test Methods

(1) The efficiency of the control device and the VOC content measured and calculated as carbon in the control device exhaust gases shall be determined by USEPA's Test Method 18, or CARB Method 422 for the determination of emissions of Exempt Compounds and USEPA's Test Methods 25, 25A; or SCAQMD's Method 25.1 or Method 25.3 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) for the determination of total organic compound emissions. Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of the rule.

(2) Viscosity will be determined by ASTM D 1084-88.

(3) The following classes of compounds: 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 sulfur bonds only to carbon and fluorine, will be analyzed as Exempt Compounds for compliance with Section (C), only at such time as manufacturers specify which individual compounds are used in the coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA, that can be used to quantify the amounts of each Exempt Compound.

(G) Prohibition of Specifications

(1) A Person shall not solicit or require any other Person to use, in the District, any Adhesives, Sealants or combination of Adhesives or Sealants in violation of the requirements of this rule.

(2) The requirements of this Section shall apply to all written or oral agreements executed or entered into after July 1, 1989.

(H) Prohibition of Sales and Use

(1) On and after September 20, 2011, except as provided in Section (J), or subsection (3) below, no Person shall use, supply, sell, or offer for sale an Adhesive, Sealant, or Adhesive or Sealant Primer for use in the District that at the time of sale exceeds the applicable VOC limits specified in subsections (C)(1) and (C)(2).

(2) On and after September 20, 2011, except as provided in subsection (3) below, no Person shall use, supply, sell, or offer for sale an Adhesive, Sealant, or Adhesive or Sealant Primer for use in the District that contains chloroform, ethylene dichloride, methylene chloride, perchloroethylene, or trichloroethylene.

(3) The prohibition of sales and use as specified in subsections (H)(1) and (H)(2) shall not apply to the following:

(a) Adhesives and Sealants shipped, supplied or sold to Persons for use outside the District;

(b) Any manufacturer of Adhesives or Sealants, provided that the manufacturer has complied with the labeling requirements of District Rule 443.1 – *Labeling of Materials Containing Organic Solvents*, and the product is not sold directly to a user located in the District, or the product was sold to an independent distributor or a sales outlet located in the District that is not a subsidiary of, or under the control of the manufacturer, and was informed in writing by the manufacturer about the compliance status of the product with this rule; and

(c) Adhesives and Sealants that contain less than one (1) percent by weight of methylene chloride.

(I) Rule 442 Applicability

(1) Any Adhesive, Sealant, Adhesive or Sealant application, operation, or Person which is exempt from all or a portion of this rule, shall comply with the applicable provisions of District Rule 442 – *Usage of Solvents*.

(J) Exemptions

(1) The provisions of subsection (C)(1) and subsection (C)(2) shall not apply to the following:

(a) Adhesives used in Tire Repair; or

(b) Adhesives and/or Adhesive application processes that are subject to the provisions of District Rules 1104, 1124, 1128, 1130 and 1130.1.

(2) The provisions of this rule shall not apply to Aerospace Components that are subject to the provisions of District Rule 1124.

(3) The provisions of subsection (C)(5) and Section (D) shall not be applied to the application of Adhesives or Sealants that contain less than 20 g/L of VOC per liter of Adhesives or Sealants, less water and less Exempt Compounds.

(4) The provisions of this rule shall not apply to any Facility that uses less than one (1) pint of Adhesives in any one (1) day so long as the products were purchased prior to September 20, 2011.

(5) The provisions of Section (C) shall not apply to research and development programs and quality assurance labs provided that:

(a) A record is kept of:

(i) The date when the Adhesives are used, and the type of application(s);
(ii) The amount of Adhesives used and the VOC content of such Adhesives;
(iii) The amount of solvents used and VOC content of such solvents; and
(iv) The manufacturer/suppliers identification and type of material.

(b) Such records shall be retained in accordance with the provisions of Section (D) of this rule.

(6) The provisions of subsection (C)(1) and subsection (C)(2) shall not apply to a Facility that demonstrates that the total volume of non-compliant Adhesives, Sealants, Adhesive Primers, Sealant Primers, and Adhesive Bonding Primers is less than 55 gallons per Facility per rolling 12 month period. On or after January 19, 2009, a Facility may not use this subsection to exclude non-compliant Adhesives used in Architectural Applications, Contact Adhesives, Special Purpose Contact Adhesives and Adhesives used on Porous substrates.

(7) The provisions of Section (C) shall not apply to Solvent Welding operations used in the manufacturing of medical devices.

(8) The provisions of this rule shall not apply to Aerosol Adhesives and Primers dispensed from Aerosol Spray Cans. These products must comply with the CARB consumer product regulation found in Title 17 of the California Code of Regulations, beginning at §94507.

(9) The provisions of subsection (C)(1) and subsection (C)(2) shall not apply to any Adhesive used exclusively for Thin Metal Laminating operations, provided that the Adhesive contains less than 780 grams of VOC per liter of Adhesive, less water and less Exempt Compounds, as applied, and the Facility uses a total of three (3) gallons per day or less of these Adhesives.

(10) The provisions of this rule, except subsection (H)(2) and Section (D), shall not apply to Light Curable Adhesives and Sealants with a VOC content no more than 50 grams per liter, less water and less Exempt Compounds.

(11) The provisions of this rule, except subsection (H)(2), shall not apply to the use of Cyanoacrylate Adhesives.

(12) The provisions of this rule shall not apply to Adhesives and Sealants subject to the CARB consumer products regulation found in Title 17 of the California Code of Regulations, beginning at §94507.

(13) A Person may sell or apply a non-complying VOC-containing or methylene chloride-containing product for one (1) year after the effective date in subsection (C)(2) for VOC-containing Adhesives and Sealants, and for one year after the applicable effective date of subsection (H)(2), provided:

(a) The product complies with the previous applicable VOC limit,

(b) The product was manufactured prior to the effective date, and

(c) The date of manufacture or a code indicating that date is clearly displayed on the product.

(14) The provisions of this rule, except subsection (H)(2), shall not apply to Adhesives used to fabricate Orthotics and Prosthetics under a medical doctor's prescription.

(15) The provisions of this rule, except subsection (H)(2), shall not apply to Shoe Repair, Luggage, and Handbag Adhesives.

See SIP Table at http://www.avaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=921

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(**Adopted:** 08/02/91; **Amended:** 05/12/95; **Amended:** 09/13/96; **Amended:** 06/13/97; **Amended**: 11/17/98; **Amended:** 08/21/18)

RULE 1171
Solvent Cleaning Operations

(A) General

(1) Purpose

(a) The purpose of this rule is to limit emissions of Volatile Organic Compounds (VOCs) from Solvent Cleaning operations and activities, and from the storage and disposal of these materials used for such operations.

(2) Applicability

(a) This rule applies to all Persons who use VOC-containing materials in Solvent Cleaning operations during the production, repair, maintenance, or servicing of parts, products, tools, machinery, equipment, or general work areas, and to all Persons who store and dispose of VOC-containing materials used in Solvent Cleaning.

(B) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) "Aerosol Product" - A hand-held, non-refillable container which expels pressurized product by means of a propellant-induced force.

(2) "Aerospace Vehicle or Components" - Any fabricated part, processed part, assembly of parts or completed unit, with the exception of electronic components, of any Aircraft or Space Vehicle, including, but not limited to, integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons.

(3) "Aircraft" - Any machine designed to travel through the air, without leaving the earth's atmosphere, whether heavier or lighter than air, including airplanes, balloons, dirigibles, helicopters, and missiles.

(4) "Air Pollution Control Officer (APCO)" - The Person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of the California Health & Safety Code §40750, and his or her designee.

(5) "Application Equipment" - A device used to apply adhesive, coating, ink, or polyester resin materials.

(6) "Cured Coatings, Cured Inks, and Cured Adhesives" - Coatings, inks, and adhesives which are dry to the touch.

(7) "District" - The Antelope Valley Air Quality Management District that includes the geographical area described in District Rule 103.

(8) "Electrical Apparatus Components" - All internal components such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in apparatus that generates or transmits electrical energy including, but not limited to generators, transformers, and electric motors.

(9) "Electronic Components" - All portions of an assembly, including circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and other electrical fixtures, except for the actual cabinet in which the components are housed.

(10) "Exempt Compounds" - Those compounds listed as excluded from the definition of volatile organic compounds in 40 CFR 51.100(s).

(11) "Facility" - A business or businesses engaged in Solvent Cleaning Operations which are owned or operated by the same Person or Persons and are located on the same or contiguous parcels.

(12) "Grams of VOC Per Liter Of Material" - The weight of VOC per volume of material, calculated by the following equation:

$$\text{Grams of VOC per liter of material} = \frac{W_s - W_w - W_{ec}}{Vm}$$

Where: Ws = Weight of volatile compounds in grams
Ww = Weight of water in grams
Wec = Weight of Exempt Compounds in grams
Vm = Volume of material in liters

(13) "High Precision Optics" - Optical elements used in electro-optical devices which are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

(14) "Janitorial Cleaning" - The cleaning of building or Facility components, such as floors, ceilings, walls, windows, doors, stairs, bathrooms, etc.

(15) "Liquid Leak" - The visible liquid solvent leak from the container at a rate of more than three (3) drops per minute, or a visible liquid mist.

(16) "Manufacturing Process" - The process of making goods or articles by hand or by machinery.

(17) "Medical Device" - An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory, that meets one of the following conditions:

(a) Is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease; or
(b) Is intended to affect the structure or any function of the body; or

(c) Is defined in the National Formulary or the United States Pharmacopeia, or any supplement to them.

(18) "Non-Absorbent Containers" - Containers made of nonporous material which does not allow the migration of the liquid Solvent through them.

(19) "Non-Atomized Solvent Flow" - The use of a solvent in the form of a liquid stream without atomization to remove uncured adhesives, uncured inks, uncured coatings, and contaminants from an article.

(20) "Non-Leaking Containers" - Containers without Liquid Leaks.

(21) "Person" - Any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, or other capacity including any governmental entity or charitable organization.

(22) "Pharmaceutical Facility" - Any facility producing or blending chemicals for use in pharmaceutical products and/or employing chemical processes in the manufacture of pharmaceutical products or medical devices. Pharmaceutical facilities may include, but are not limited to, establishments primarily engaged in manufacturing, fabricating, or processing medicinal chemicals and pharmaceutical products for human or veterinary use.

(23) "Remote Reservoir Cleaner" - A cleaning device in which liquid solvent is pumped from a solvent container to a sink-like work area and the solvent from the sink-like area drains into an enclosed solvent container while parts are being cleaned.

(24) "Repair and Maintenance Cleaning" - A Solvent Cleaning Operation or activity carried out to:

(a) Return a damaged object or an object not operating properly to good condition; or
(b) Maintain tools, machinery equipment (excluding Application Equipment) or general work areas, in clean and good operational condition.

(25) "Scientific Instruments" - Instruments (including the components, assemblies, and subassemblies used in their manufacture) and associated accessories and reagents which are used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.

(26) "Screen Printing" - A process in which ink passes through a web or a fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint.

(27) "Solvent" - A VOC-containing liquid used to perform Solvent Cleaning.

(28) "Solvent Cleaning" - The removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants which include, but are not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas. Each distinct method of cleaning in a cleaning process, which consists of a series of cleaning methods, shall constitute a separate Solvent Cleaning operation.

(29) "Solvent Flushing" - The use of a Solvent to remove uncured adhesives, uncured inks, uncured coatings, or contaminants from the internal surfaces and passages of the equipment by flushing Solvent through the equipment.

(30) "Space Vehicle" - A vehicle designed to travel beyond earth's atmosphere.

(31) "Sterilization Indicating Ink" - Ink that changes color to indicate that sterilization has occurred. Such ink is used to monitor the sterilization of medical instruments, autoclave efficiency, and the thermal processing of foods for prevention of spoilage.

(32) "Stripping" - The removal of Cured Coatings, Cured Inks, and Cured Adhesives.

(33) "Surface Preparation" - The removal of contaminants such as dust, soil, oil, grease, etc., prior to coating, adhesive, or ink applications.

(34) "United States Environmental Protection Agency (USEPA)" - The United States Environmental Protection Agency, the Administrator of the USEPA and his or her authorized representative.

(35) "VOC Composite Partial Pressure" - The sum of the partial pressures of the compounds defined as VOCs. VOC Composite Partial Pressure is calculated as follows:

$$PP_C = \sum_{i=1} \frac{\frac{(W_i)(VP_i)}{MW_i}}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

Where:

W_i	=	Weight of the "i"th VOC compound, in grams
W_w	=	Weight of water in grams
W_e	=	Weight of exempt compound, in grams
MW_i	=	Molecular weight of the "i"th VOC compound, in grams per gram-mole
MW_w	=	Molecular weight of water, in grams per gram-mole
MW_e	=	Molecular weight of exempt compound, in grams per gram-mole
PP_C	=	VOC Composite Partial Pressure at 20^{o}C, in mm Hg
VP_i	=	Vapor pressure of the "i"th VOC compound at 20^{o}C, in mm Hg

(36) "Volatile Organic Compound (VOC)" - Any volatile compound of carbon, excluding Exempt Compounds.

(37) "Wipe Cleaning" - The method of cleaning a surface by physically rubbing it with a material such as a rag, paper, sponge or a cotton swab moistened with a Solvent.

(C) Requirements

(1) Solvent Requirements

(a) A Person shall not perform Solvent Cleaning unless the Solvent complies with the applicable requirements set forth below or:

Solvent Cleaning Activity				VOC Content Limit* grams/liter (lb/gal)
				Limit
(i)	Product Cleaning During Manufacturing Process or Surface Preparation for Adhesive, Coatings or Ink Application	General		50 (0.42)
		Electrical Components and Electronic Apparatus Components		100 (0.83)
		Medical Devices & Pharmaceuticals		800 (6.7)
(ii)	Repair and Maintenance Cleaning	General		50 (0.42)
		Electrical Components and Electronic Apparatus Components		100 (0.83)
		Medical Devices & Pharmaceuticals	Tools, Equipment & Machinery	800 (6.7)
			General Work Surface	600 (5.0)
(iii)	Cleaning of Adhesives or Coating Application Equipment	General		50 (0.42)
		Aerospace Vehicle or Component		200 (1.67) or 45 mmHg
(iv)	Cleaning of Ink Application Equipment	General		50 (0.42)
		Screen Printing		100 (0.83)
(v)	Cleaning of Polyester Resin Application Equipment			50 (0.42)

*For Aerospace Vehicle or Components, the solvent must comply with either the VOC Content limit in grams/liter (g/l) or the VOC Composite Partial Pressure limit in millimeters mercury (mmHg).

(b) Has a VOC Composite Partial Pressure of 8 mmHg at 20° C (68° F), calculated using the equation in subsection (B)(35) of this rule:

(i) Except for Cleaning of Ink Application Equipment, Screen Printing, which has a VOC Composite Partial Pressure of 5 mmHg at 20° C (68° F).

(2) Cleaning Devices and Methods Requirements

(a) A Person shall not perform Solvent Cleaning unless one of the following cleaning devices or methods is used:

(i) Wipe Cleaning;

(ii) Cleaning within closed containers or by using hand held spray bottles from which Solvents are applied without a propellant-induced force;

(iii) Cleaning equipment which has a Solvent container that is closed during cleaning operations, except when depositing and removing objects to be cleaned, and is closed during nonoperation with the exception of maintenance and repair to the cleaning equipment itself;

(iv) Remote Reservoir Cleaner used pursuant to the provisions of subsection (C)(3);

(v) Non-Atomized Solvent Flow method where the cleaning Solvent is collected in a container or a collection system which is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or

(vi) Solvent Flushing method where the cleaning Solvent is discharged into a container which is closed except for Solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged Solvent from the equipment must be collected into containers without atomizing into the open air. The Solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

(b) A Person shall not atomize any Solvent unless it is vented to an air pollution control equipment which meets the requirements of subsection (C)(5).

(c) A Person shall not specify or require any Person to use Solvent or equipment subject to the provisions of this rule that does not meet the requirements of this rule.

(d) A Person shall not perform Solvent Cleaning activities or operations subject to the provisions of this rule with any material which contains any of the following compounds:

- 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);
- ethylfluoride (HFC-161);
- 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);
- 1,1,2,2,3-pentafluoropropane (HFC-245ca);
- 1,1,2,3,3-pentafluoropropane (HFC-245ea);
- 1,1,1,2,3-pentafluoropropane (HFC-245eb);
- 1,1,1,3,3-pentafluoropropane (HFC-245fa);
- 1,1,1,2,3,3-hexafluoropropane (HFC-236ea);
- 1,1,1,3,3-pentafluorobutane (HFC-365mfc);
- chlorofluoromethane (HCFC-31);
- 1-chloro-1-fluoroethane (HCFC-151a); or
- 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a).

(3) Remote Reservoir Cleaners

(a) Any Person owning or operating a Remote Reservoir Cleaner shall comply with all of the following requirements, in addition to the VOC limits for Repair and Maintenance Cleaning specified in subsection (C)(1)(a)(ii):

(i) Prevent Solvent vapors from escaping from the Solvent container by using such devices as a cover or a valve when the remote reservoir is not being used, cleaned, or repaired;

(ii) Direct Solvent flow in a manner that will prevent liquid Solvent from splashing outside of the Remote Reservoir Cleaner;

(iii) Do not clean porous or absorbent materials, such as cloth, leather, wood, or rope; and

(iv) Use only Solvent containers free of all Liquid Leaks. Auxiliary equipment, such as pumps, pipelines, or flanges, shall not have any Liquid Leaks, visible tears, or cracks. Any Liquid Leak, visible tear, or crack detected shall be repaired within one (1) calendar day, or the leaking section of the remote reservoir cold cleaner shall be drained of all Solvent and shut down until it is replaced or repaired.

(4) Storage and Disposal

(a) All VOC containing Solvents, used in Solvent Cleaning operations, or a waste or used product, including items such as cloth or paper laden with VOC containing materials, shall be stored in Non-Absorbent, Non-Leaking Containers which shall be kept closed at all times except when filling or emptying, and disposed of in a manner to prevent evaporation of VOCs into the atmosphere at the facility.

(5) Control Equipment

(a) In lieu of complying with the requirements in subsection (C)(1)(a) or (C)(2), a Person may comply by using a VOC emission collection and control system in association with the Solvent Cleaning operation provided:

(i) The emission control system shall collect at least 90 percent, by weight, of the emissions generated by the Solvent Cleaning operation; and

1. have a destruction efficiency of at least 95 percent, by weight, or

2. have an output of less than 50 parts per million (PPM) calculated as carbon with no dilution; or

(ii) The emission control system meets the requirements of the applicable source specific rule of the District's Regulation XI. The collection system for cleaning in Screen Printing and cleaning of Application Equipment used for Screen Printing materials shall collect at least 70 percent, by weight, of the emissions generated. This control system shall reduce emissions from the emission collection system by at least 95 percent.

(D) Recordkeeping Requirements

(1) Records shall be maintained pursuant to Rule 109 for all applications subject to this rule, including those exempted under section (F), except the following:

(a) Facilities required to keep records of VOC used pursuant to any other Regulation XI rules.

(2) Records shall be maintained to record the amount and type of each solvent used at each process on a daily basis. The following information should be included:

(a) The name of the solvent;

(b) The name of the solvent manufacturer;

(c) The VOC content of the solvent expressed in grams/liter or lb/gallon;

(d) Solvent usage; and

(e) The mix ratio for the cleaning solvent as applied.

(3) If compliance with this rule is achieved through the use of an Emission Control System, in addition to the provisions of subsection (D)(2), records shall also include:

(a) Daily records of temperatures, pressures, flowrates, and hours of operation of the control device to verify compliance of the capture and control device; and

(b) Records of maintenance work which interferes with the operation of the control device.

(4) All records shall be maintained and on site for a period of five (5) years and made available to the APCO or District staff upon request.

(E) Test Methods

(1) For the purpose of this rule, the following test methods shall be used. Other test methods determined to be equivalent after review by District staff, the Air Resources Board, and the USEPA, and approved in writing by the APCO and the USEPA, may also be used.

(a) The VOC content of materials subject to the provisions of this rule shall be determined by the following methods:

(i) USEPA Reference Method 24 (Code of Federal Regulations, Title 40, Part 60, Appendix A) and subsection (B)(12) of this rule.

(b) Exempt Perfluorocarbon Compounds

(i) The following classes of compounds will be analyzed as Exempt Compounds for compliance with Section (C), only when manufacturers specify which individual compounds are used in the Solvent formulation and identify the USEPA, California Air Resources Board, and other USEPA-approved test methods used to quantify the amount of each exempt compound:

1. cyclic, branched, or linear, completely fluorinated alkanes;

2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

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

4. sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

(c) Determination of VOC Composite Partial Pressure

(i) The identity and quantity of components in Solvents shall be determined by ASTM Method D323-94. The VOC Composite Partial Pressure is calculated using the equation in subsection (B)(35) of this rule.

(d) Determination of Presence of VOC in Cleaning Materials

(i) The presence of VOC in liquid cleaning materials shall be determined by SCAQMD Method 308 (Quantitation of Compounds by Gas Chromatography) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(e) Determination of Efficiency of Emission Control System

(i) The efficiency of the collection device of the emission control system as specified in subsection (C)(5)(a)(i) shall be determined by the USEPA method cited in USEPA's publication entitled "Guidelines for Determining Capture Efficiency", January 9, 1995, in conjunction with USEPA Method 204, 204A, 204B, 204C, 204D, 204E or 204F, as appropriate, or any other alternative method approved by USEPA, the California Air Resources Board, and the District.

(ii) The efficiency of the control device of the emission control system as specified in subsection (C)(5)(a)(i) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by USEPA Test Method 25 or 25A, as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of Exempt Compounds.

(f) Multiple Test Methods

(i) 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.

(g) Unless otherwise specified, all test methods referenced in this section shall be the version most recently approved by USEPA.

(F) Exemptions

(1) The provisions of this Rule shall not apply to:

(a) Any source operation that is subject to or specifically exempted by any of the following:

(i) Rule 1102 - *Petroleum Solvent Dry Cleaners*
(ii) Rule 1113 – *Architectural Coatings*
(iii) Rule 1122 – *Solvent Degreasers*

(iv) Rule 1124 - *Aerospace Assembly and Component Manufacturing Operations*, except coating Application Equipment cleaning, and storage and disposal of VOC-containing materials used in Solvent Cleaning operations.
(v) Rule 1141.1 – *Coatings and Ink Manufacturing*
(vi) Rule 1151 – *Motor Vehicle and Mobile Equipment Coating Operations*
(vii) Rule 1151.1 – *Motor Vehicle Assembly Coating Operations*
(viii) Rule 1164 - *Semiconductor Manufacturing*.

(b) Janitorial Cleaning, including graffiti removal.

(c) Stripping of Cured Coatings, Cured Adhesives, and Cured Inks.

(d) Cleaning operations using Solvents with a water content of 98% or more, by weight.

(2) The provisions of subsection (C)(1)(a) shall not apply when carried out for any of the following applications:

(a) Cleaning of solar cells, laser hardware, Scientific Instruments, and High Precision Optics.

(b) Cleaning for: conducting performance laboratory tests on coatings, adhesives, or inks; research and development programs; and laboratory tests in quality assurance laboratories.

(c) Cleaning of polycarbonate plastics.

(d) Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics.

(3) Cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with spray bottles or containers described in subsection (C)(2)(a)(ii), are not subject to the provisions of subsection (D)(1).

(4) Cleaning with Aerosol Products shall not be subject to the provisions of subsections (C)(1)(a) and (D)(1) if 160 fluid ounces or less of Aerosol Product are used per day, per Facility.

(5) Medical Device and pharmaceutical facilities may use up to 1.5 gallons per day of Solvents that are not in compliance with subsection (C)(1)(a).

(6) The provisions of subsection (C)(1)(a)(iii) shall not apply to cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery product using less than 3 gallons per day of ethyl acetate averaged over a 30 calendar day period.

(7) The provisions of subsection (C)(1)(a)(iv) shall not apply to Persons or Facilities using less than 1.5 gallons per day of solvents to clean Sterilization Indicating Ink Application Equipment.

(G) Rule 442 Applicability

Any Solvent, Solvent Cleaning activity, Solvent Cleaning unit operation, or Person, which is exempt from all or a portion of this rule except section (D), shall be subject to the applicable requirements of the applicable Regulation XI source specific rule or Rule 442 - *Usage of Solvent*.

See SIP Table at www.avaqmd.ca.gov

(**Adopted**: 07/07/89; **Amended**: 12/07/90; **Amended**: 05/13/94; **Amended**: 06/17/08)

RULE 1173
Fugitive Emissions of Volatile Organic Compounds

(A) General

(1) Purpose

The purpose of this rule is to control volatile organic compounds leaks from valves, fittings, pumps, compressors, pressure relief devices, diaphragms, hatches, sight-glasses, and meters.

(2) Applicability

This Rule is applicable to components with the potential to release fugitive Volatile Organic Compounds (VOC).

(3) Exemptions

The provisions of this rule shall not apply to the following cases, where the person seeking the exemption shall supply the proof of the applicable criteria to the satisfaction of the APCO's designee:

(a) Components which present a safety hazard for inspection as documented and established in a safety manual or policy, previously, or with the prior written approval of the APCO's designee except that these components shall be monitored for leaks when it is safe to do so. Upon detection of a leak, component(s) shall be repaired or replaced as soon as the repairs or replacement can be carried out safely.

(b) Components being repaired or replaced within the specified repair or replacement period, as given in Table 2.

(c) Components exclusively handling commercial natural gas.

(d) Components exclusively handling fluids with a VOC concentration of ten percent by weight or less, determined according to test methods specified in subparagraph (H)(2).

(e) Components incorporated in lines, while operating under negative pressures.

(f) Components totally contained or enclosed such that there are no VOC emissions into the atmosphere.

(g) Lubricating fluids.

(h) Components buried below ground.

(i) Components handling liquids exclusively, if the weight percent evaporated is ten percent or less at 150^{o}C, as determined by ASTM Method D-86.

(j) Pressure vacuum valves on storage tanks.

(k) Components subject to District Rule 461.

(B) Definitions:

For the purpose of this rule the following definitions shall apply:

(1) Air Pollution Control Officer (APCO) – The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health and Safety Code §40750 and his or her designee.

(2) Background – The ambient concentration of volatile organic compounds in the air determined at least one (1) meter upwind of the component to be inspected.

(3) Commercial Natural Gas – A mixture of gaseous hydrocarbons, with at least 80 percent methane, and less than 10 percent by weight volatile organic compounds, determined according to test methods specified in subparagraph (g)(2).

(4) Component – Any valve, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter. They are further classified as:

(a) Major Component – Any 4-inch or larger valve, any 5-hp or larger pump, any compressor, and any 4-inch or larger pressure relief device.

(b) Minor Component – Any component which is not a major component.

(5) Compressor – A device used to compress gases and/or vapors by the addition of energy, and includes all associated components used for connecting and sealing purposes.

(6) District – The Antelope Valley Air Quality Management District the geographical area of which is described in District Rule 103.

(7) Exempt Compounds – Those compounds listed in 40 CFR 51.100(S)(1)

(8) Facility – A refinery, chemical plant, oil and gas production field, natural gas processing plant, or pipeline transfer station.

(9) Field Gas – Feed stock gas entering the natural gas processing plant.

(10) Fitting – A component used to attach or connect pipes or piping details, including but not limited to flanges and threaded connections.

(11) Gas Leak – One of the following:

(a) Major gas leak for any component except for a pressure relief device – The detection of gaseous volatile organic compounds in excess of 10,000 ppm as methane above background measured according to test procedures in subparagraph (H)(1).

(b) Minor gas leak for any component except for a pressure relief device – The detection of gaseous volatile organic compounds in excess of 1,000 ppm but not more than 10,000 ppm as methane above background measured according to test procedures in subparagraph (H)(1).

(c) Major gas leak for a pressure relief device – The detection of gaseous volatile organic compounds in excess of 200 ppm as methane above background measured according to test procedures in subparagraph (H)(1).

(12) Hatch – Any covered opening system that provides access to a tank or container, usually through the top deck.

(13) Inaccessible Component – Any component located over five meters above ground when access is required from the ground; or any component located over two meters away from a platform when access is required from the platform; or any component which would require the elevation of a monitoring personnel higher than two meters above permanent support surfaces.

(14) Inspection – Either of the following:

(a) Operator Inspection – A survey of components by the operator for the purpose of determining compliance with this rule.

(b) District Inspection – A survey of components by District personnel or their representatives.

(15) Liquid Leak – One of the following:

(a) The dripping of liquid volatile organic compounds at the rate of more than three drops per minute.

(b) A visible liquid mist.

(c) Any visible indication of leakage at or near the seal/shaft interface for gas compressors.

(16) Lubricating Fluid – A fluid that provides lubrication of moving parts in a pump, including barrier fluids.

(17) Platform – Any raised, permanent, horizontal surface for the purpose of gaining access to components.

(18) Pressure Relief Device (PRD) – A pressure relief valve or a rupture disc.

(19) Pressure Relief Valve (PRV) – A valve which is automatically actuated by upstream static pressure, and used for safety or emergency purposes.

(20) Pump – A device used to transport fluids by the addition of energy, and includes all associated components used for connecting or sealing purposes.

(21) Repair – Any of the following:

(a) On-Site Repair – Corrective action for the purpose of eliminating leaks and which is not a significant repair.

(b) Significant Repair – Corrective action for the purpose of eliminating leaks involving the temporary removal or taking out of service of a component.

(22) Rupture Disc – A diaphragm held between flanges for the purpose of isolating a volatile organic compound from the atmosphere or from a downstream pressure relief valve.

(23) Valve – A device that regulates or isolates the fluid flow in a pipe, tube, or conduit by means of an external actuator; including flanges, flange seals, and other components used for attachment or sealing.

(24) Volatile Organic Compound (VOC) – Any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds as listed in 40 CFR 51.100(s)(1).

(C) Leak Control Requirements

(1) Any liquid leak or gas leak of over 50,000 ppm detected by District inspection shall constitute a violation of this rule.

(2) Any major gas leak detected by District inspection, within any continuous 24-hour period, and numbering in excess of the Leak Thresholds for that component listed below in Table 1, shall constitute a violation of this rule.

TABLE 1. LEAK THRESHOLDS

Component	Max. No. of Leaks (200 or less components inspected)	Max. No. of Leaks (over 200 components inspected)
Valves	1	0.5% of number inspected
Pumps	2	1% of number inspected
Compressors	1	1
PRDs	1	1
Other Components	1	1

The maximum number of leaks in Table 1 shall be rounded upwards to the nearest integer, where required.

(3) Open-ended lines and valves located at the end of lines shall be sealed with a blind flange, plug, cap, or a second closed valve, at all times except during operations requiring process fluid flow through the open-ended line.

(D) Identification Requirements

(1) All major components shall be physically identified clearly and visibly for inspection, repair, replacement, and recordkeeping purposes.

(2) All minor components shall be clearly identified in Piping and Instrumentation (P&I) flow diagrams, and/or grouped together functionally for inspection, repair, replacement, and recordkeeping purposes.

(3) Any change(s) in major component identification shall require prior written approval from the APCO's designee.

(E) Operator Inspection Requirements

(1) All accessible pumps, compressors, and pressure relief devices shall be audio-visually inspected once during every eight-hour operating period, except for unmanned oil and gas production fields, and unmanned pipeline transfer stations.

(2) All accessible components shall be inspected quarterly.

(3) All inaccessible components shall be inspected annually.

(4) A pressure relief device shall be inspected within 14 calendar days after every functional pressure relief.

(5) The inspection frequency for accessible components, except pumps and compressors, at a facility, as required in subparagraph (E)(2), may change from quarterly to annually, provided all of the following conditions are met.

(a) All accessible components, except pumps and compressors, at that facility have been successfully operated and maintained with no liquid leaks and with major gas leaks within the Leak Thresholds for such components listed in Table 1, for five consecutive quarters; and

(b) The above is substantiated by documentation and submitted for written approval from the APCO's designee.

(6) The annual inspection frequency for all accessible, components, except pumps and compressors, if approved in subparagraph (E)(5), shall revert to quarterly, should the annual inspection or District inspection show any liquid leak or major gas leaks in excess of the Leak Thresholds for such components listed in Table 1.

(F) Maintenance Requirements

(1) A component shall be repaired or replaced within the following time period after detection of the leak by operator inspection or District inspection, according to Table 2, Repair Periods.

TABLE 2. REPAIR PERIODS

Type of Leak	Time Period
Minor Gas Leak	14 Calendar Days
Major Gas Leak	5 Calendar Days
Gas Leak over 50,000 ppm	1 Calendar Day
Liquid Leak	1 Calendar Day

(2) The repaired or replaced component shall be subjected to operator inspection within 30 days of the repair or replacement.

(3) A component or parts thereof shall be replaced with Best Available Control or Retrofit Technology (BACT or BARCT), or vented to an air pollution control device approved by the APCO's designee, after it has been subjected to five significant repair actions for a liquid leak or a major gas leak within a continuous twelve-month period.

(4) The reporting provisions of Rule 430 shall not be applicable to components being repaired or replaced under the provisions of this rule, except compressors.

(G) Recordkeeping Requirements

(1) Records of leaks detected by quarterly or annual operator inspection, and subsequent repair and reinspection, shall be submitted to the APCO's designee, within 30 or 60 days, respectively. Such records shall be submitted on standard forms specified by the District and shall contain all information required on the form.

(H) Test Methods

(1) Measurements of gaseous volatile organic compound leak concentrations shall be conducted according to EPA Reference Method 21 using an appropriate analyzer calibrated with methane at a distance of 1 cm or less from the source.

(2) The volatile organic compound content of fluids shall be determined using ASTM methods E-168, E-169, or E-260, or any other alternative test method approved in advance as a source-specific State Implementation Plan revision by the United States Environmental Protection Agency and the California Air Resources Board, and authorized by the APCO's designee.

(3) All records of operator inspection and repair shall also be maintained at the facility for a period of two (2) years and made available to the District staff on request.

(I) Other Rules and Regulation Applicability

(1) In case of conflict between the provisions of this rule and any other rule, the provisions of the rule which more specifically applies to the subject shall prevail.

[SIP: Submitted as amended 6/17/08 on _____; Approved 8/25/94, 59 FR 43754, 40 CFF 52.220(c)(197)(i)(A)(1); Approved _____, _____, 40 CFR 52.220(c)(184)(i)(B)(3)]

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5/24/94

(Adopted November 3, 1989)(Amended January 5, 1990)
(Amended May 13, 1994)

RULE 1175. CONTROL OF EMISSIONS FROM THE MANUFACTURE OF POLYMERIC CELLULAR (FOAM) PRODUCTS

(a) Applicability

This rule shall apply to polymeric cellular products manufacturing operations including but not limited to expandable polystyrene, polystyrene foam extrusion, polyurethane, isocyanurate and phenolic foam operations. All steps of the manufacturing operation and the storage of the final product for a maximum of 48 hours are subject to the requirements of this rule.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) APPROVED EMISSION CONTROL SYSTEM means any system used to reduce manufacturing emissions and consists of a collection and a control device, which are approved, in writing, by the Executive Officer. The control system must be operated subject to the following provisions:

(A) The emission collection system shall collect at least a 90 percent by weight of the manufacturing emissions; and

(B) The control device shall reduce emissions from the emission collection system by at least 95 percent, by weight.

(2) BLOWING AGENT means a liquid, gaseous or solid material that facilitates the formation of a cellular product from raw polymeric material.

(3) CHLOROFLUOROCARBON (CFC) is any chlorinated fluorinated compound of carbon, excluding;

chlorodifluoromethane (HCFC-22),
dichlorotrifluoroethane (HCFC-123),
tetrafluoroethane (HFC-134a),
dichlorofluoroethane (HCFC-141b),
chlorodifluoroethane (HCFC-142b)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),

(4) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I (General)

trifluoromethane (HFC-23)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
tetrafluoroethane (HFC-134a)
1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)
chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
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
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (FC-23)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. By January 1, 1996, chlorofluorocarbons (CFC), 1,1,1,-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulations Title 40, Part 82 (December 10, 1993).

(5) EXPANDABLE POLYSTYRENE (EPS) MOLDING OPERATIONS consist of a series of processes, where polystyrene beads and blowing agent are expanded by exposure to steam or any other expansion agent and processed through cup, block or shape molding into low-density, closed cell, cellular products. EPS products include but are not limited to drinking cups, insulation board, packaging material, and ice chests.

(6) MANUFACTURING EMISSIONS are any emissions of VOC, CFC, or methylene chloride that occur during the manufacturing operation.

(7) MANUFACTURING OPERATION means every step of the processing of a polymeric material from the delivery of the raw material, until the storage of the final cellular product.

(8) RAW MATERIAL means all polystyrene beads, polyurethane, and blowing agent used in the manufacture of polymeric cellular products.

(9) RIGID POLYURETHANE is a closed cell polyurethane, primarily manufactured as rigid slabstock, laminated boardstock, field spray foam or pour-in-place foam.

(10) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and exempt compounds.

(c) Emission Control Requirements

(1) Manufacturing Operations, Excluding Expandable Polystyrene (EPS) Molding Operations

(A) By January 1, 1994, each polyurethane operation subject to the rule shall discontinue its use of CFCs, VOCs, or methylene chloride.

(B) Each manufacturing operation, excluding rigid polyurethane operations shall reduce yearly emissions from its 1988 emissions baseline, based on Rule 301 emission fees filing, by 100 percent, beginning calendar year 1994.

(2) Expandable Polystyrene (EPS) Molding Operations

The owner or operator of an expandable polystyrene (EPS) molding operation shall demonstrate, to the satisfaction of the Executive Officer, that manufacturing emissions and post-manufacturing emissions, assuming all the blowing agent is released from the product, are less than 2.4 lbs per 100 lbs of

raw material processed.

(3) The owner or operator of any polymeric cellular manufacturing operation, subject to the requirements of subparagraph (c)(1) or (c)(2), shall submit a plan to the District subject to approval by the Executive Officer's designee, that will demonstrate compliance with subparagraph (c)(1) or (c)(2).

(4) The owner or operator of any polymeric cellular manufacturing operation that has not achieved the requirements specified in subparagraphs (c)(1), (c)(2), or (c)(3) shall:

(A) Submit permit applications for the installation of an emission control system within four months of the date that compliance with such requirement was not achieved; and

(B) Within 12 months of failing to meet the requirements of subparagraph (c)(1), (c)(2), or (c)(3), the following provisions must be satisfied:

(i) An approved emission control system is installed and operating with all sources of manufacturing emissions vented only to the approved emission control system; and

(ii) Emissions from the final manufactured product are vented only to the approved emission control system for at least:

(I) 48 hours, in the case of expandable polystyrene molding operations that process more than 800,000 pounds per calendar year of raw material; or

(II) 24 hours, in the case of all other manufacturing operations.

(d) Exemptions

(1) The provisions of paragraph (c) shall not apply to any:

(A) Expandable polystyrene operation that processes less than 200 pounds per day of raw material.

(B) Rigid polyurethane operation that processes less than 1,000 pounds per day of raw material.

(2) The provisions of subparagraph (c)(4)(B)(ii) shall not apply to any facility that only manufactures:

(A) rigid polyurethane foam; or

(B) EPS foam and the highest concentration of the blowing agent in the

cellular product is 1.8 percent or less by weight within 15 minutes of completion of the manufacturing operation. Verification of the concentration shall be demonstrated annually, pursuant to a protocol submitted to the District and subject to approval by the Executive Officer.

(e) Recordkeeping

(1) Any owner or operator subject to this rule or claiming an exemption under paragraph (d) shall maintain a daily record of operations, including but not limited to the amount of raw material processed, the equipment used, and the type of blowing agent used. Such records shall be retained in the operator's files for a period of two years and be available to a District representative upon request.

(2) Owners and/or operators using an emission control system as a means of complying with this rule shall maintain daily records of the operation and maintenance of the emission control system. These records shall include key system operating parameters such as temperatures, pressures, flowrates, and other measures to demonstrate compliance with paragraph (c)(4).

(f) Test Methods

(1) Determination of VOC Content

The VOC content of materials subject to the provisions of this rule shall be determined by the following methods:

(A) United States Environmental Protection Agency (USEPA) Reference Method 24 (Code of Federal Regulations Title 40 Part 60, Appendix A,). The exempt solvent content shall be determined by SCAQMD Method 303 (Determination of Exempt Compounds) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,

(B) SCAQMD Method 304 [Determination of Volatile Organic Compounds (VOCs) in Various Materials] contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(C) Exempt Perfluorocarbon Compounds

The following classes of compounds will be analyzed as exempt

compounds for compliance with paragraph (c), only when manufacturers specify which individual compounds are used in the coating formulation:

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 sulfur bonds only to carbon and fluorine.

In addition, the manufacturers must identify the test methods approved and used by the United States Environmental Protection Agency, California Air Resources Board, and the District to quantify the amount of each exempt compound.

(2) Determination of Pentanes in Expandable Styrene Polymers

The weight percent pentane in expandable polystyrene polymer shall be determined by SCAQMD Method 306 (Analysis of Pentanes in Expandable Styrene Polymers) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(3) Determination of Efficiency of Emission Control System

(A) The efficiency of the collection device of the emission control system required in paragraph (c)(4) shall be determined by the USEPA method cited in 55 Federal Register 26865 (June 29, 1990), or any other method approved by the United States Environmental Protection Agency, the California Air Resources Board, and the District.

(B) The efficiency of the control device of the emission control system required in paragraph (c)(4) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by USEPA Test Methods 25, 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of exempt compounds.

(4) Multiple Test Methods

When more than one test method or set of test methods are 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 the rule.

5/24/94

(Adopted November 3, 1989)(Amended January 5, 1990)
(Amended May 13, 1994)

RULE 1176. SUMPS AND WASTEWATER SEPARATORS

(a) Purpose

This rule is intended to limit volatile organic compound emissions from sumps, wastewater separators, separator forebays, process drains, sewer lines, and junction boxes located at oil production fields, refineries, chemical plants, and industrial facilities handling petroleum liquids.

(b) Definitions

(1) CATCH BASIN is an open basin which serves as a single collection point for rainwater or stormwater run-off directly from ground surfaces, or for wastewater.

(2) CHEMICAL PLANT is any facility engaged in producing organic or inorganic chemicals, and/or manufacturing products by chemical processes. Any facility or operation that has 282 as the first three digits in their Standard Industrial Classification Code as defined in the Standard Industrial Classification Manual is included.

(3) CLOSED VENT SYSTEM is a system that is not open to the atmosphere and is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from an emission source to an air pollution control device.

(4) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I (General)
trifluoromethane (HFC-23)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
tetrafluoroethane (HFC-134a)
1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)
chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
dichlorofluoroethane (HCFC-141b)

chlorodifluoroethane (HCFC-142b)
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
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II
methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (FC-23)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. By January 1, 1996, chlorofluorocarbons (CFC), 1,1,1,-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulations Title 40, Part 82 (December 10, 1993).

(5) FIXED COVER is any cover made out of metal(s), polymer(s), or other material, and installed in a permanent position over the liquid.

(6) FLOATING COVER is any cover made out of metal(s), polymer(s), or other material, which is in contact with a liquid surface at all times.

(7) INDUSTRIAL FACILITIES are those engaged in the production and distribution of natural gas, pipeline distribution or wholesale distribution of crude petroleum and petroleum products except gasoline, as classified under the Standard Industrial Classification group numbers 492, 461, or 517, respectively, of the Standard Industrial Classification Manual.

(8) JUNCTION BOX is a manhole or access point to a wastewater sewer system line.

(9) OIL PRODUCTION FIELD is a facility on which crude petroleum production and handling are conducted, as defined in the Standard Industrial Classification Manual as Industry No. 1311, Crude Petroleum and Natural Gas.

(10) REFINERY is a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining.

(11) RIGID FLOATING COVER is a floating cover made out of non-flexible materials.

(12) SEPARATOR FOREBAY is that section of a gravity-type separator which receives the untreated contaminated waste water from the preseparator flume and acts as a header which distributes the influent to the separator channels.

(13) SEWER LINE is a lateral trunk line, branch line, ditch, channel, or other conduit used to convey wastewater to downstream oil-water separators.

(14) SUMP is a surface impoundment or excavated depression in the ground, lined or unlined, that is used for separating oil or other organic liquids, water, and solids. A sump is classified as:

(A) PRIMARY OR FIRST STAGE PRODUCTION SUMP is any sump which receives a stream of crude oil and produced water directly from oil production wells or field gathering systems.

(B) SECONDARY OR SECOND STAGE SUMP is any sump which receives a waste water stream from one or more primary sumps, a free water knockout device, or a tank as well as intermittent or emergency streams.

(C) TERTIARY OR THIRD STAGE SUMP is any sump which receives a waste water stream from the secondary sump or other separation processes.

(15) VOLATILE ORGANIC COMPOUND (VOC) is a chemical compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and the exempt compounds listed in subparagraph (b)(4) above.

(16) WASTEWATER SEPARATOR is any device used to separate VOCs from the waste water.

(c) General Requirements

(1) Primary sumps shall not be used.

(2) Secondary sumps, tertiary sumps, or wastewater separators shall be replaced by covered tanks which are approved by the Executive Officer's designee; or provided with any one of the following:

(A) A floating cover equipped with seals. The floating cover and/or seals shall be replaced every five (5) years, unless the owner/operator can demonstrate to the satisfaction of the Executive Officer's designee that the floating cover and/or seals has never been in violation with the provisions of this rule.

(B) A fixed cover, equipped with a closed vent system that directs vapors to an air pollution control device, with a control efficiency of 95 percent by weight or greater, measured according to the test method specified in subparagraph (g)(2). The closed vent system shall not produce detectable VOC emissions in excess of 500 ppm above background, measured according to the test method specified in subparagraph (g)(1).

(C) Any measure which is equivalent to, or more effective in reducing VOC emissions than the requirements of subparagraphs (c)(2)(A) or (c)(2)(B), with a control efficiency of 95 percent by weight or greater, measured according to the test method specified in subparagraph (g)(2), as demonstrated by the applicant to the satisfaction of the Executive Officer's designee.

(3) The following shall not be used unless equipped and operated as specified below:

(A) Separator forebays and sewer lines:

All interconnections with the receiving wastewater separators shall be enclosed by fixed covers such that no liquid surface is exposed to the atmosphere.

(B) Process drains:

At any drain opening to the atmosphere, VOC emissions shall not exceed 500 ppm above background, measured according to the test method specified in subparagraph (g)(1).

(C) Junction boxes:

Junction boxes shall be totally enclosed with a solid, gasketed, fixed cover or a manhole cover. Each fixed cover shall be permitted to have

an open vent pipe no more than four (4) inches in diameter and at least three (3) feet in length. Each manhole cover shall be permitted to have an opening no more than four (4) inches in diameter.

(4) Slop oil, oil-contaminated wastewater, or tar from a sump or wastewater separator shall be handled in a manner approved in writing by the Executive Officer's designee.

(d) Requirements for Covers

Covers for secondary and tertiary sumps, and wastewater separators shall meet all of the following requirements:

(1) The cover material shall be impermeable to VOCs, and free from holes, tears, or openings.

(2) Drains on covers shall be provided with a slotted membrane fabric cover, or equivalent, over at least 90 percent of the open area.

(3) Gauging or sampling devices on the compartment cover shall be covered. The latter cover shall be kept closed, with no visible gaps between the cover and the compartment, except when the sampling device is being used.

(4) Hatches on covers shall be kept closed and free of gaps, except when opened for inspection, maintenance, or repair.

(5) The perimeter of a cover, except for a rigid floating cover, shall form a seal free of gaps with the foundation to which it is attached.

(6) A rigid floating cover shall be installed and maintained such that the gap between the compartment or sump wall and the seal does not exceed 1/8 inch for a cumulative length of 97 percent of the perimeter of the compartment. No gap between the wall and the seal shall exceed 1/2 inch.

(e) Operator Inspection and Maintenance Requirements

(1) Air pollution control device(s) required in subparagraph (c)(2)(B) shall be subjected to performance tests semiannually, for verification of control efficiency according to the test method specified in subparagraph (g)(2).

(2) Closed vent systems required in subparagraph (c)(2)(B) and process drains shall be inspected monthly for VOC emissions, according to the test method specified in subparagraph (g)(1).

(3) Defect(s) or leak(s) detected through either operator inspection or District inspection shall be repaired or rectified within three (3) calendar days of detection. The repaired or replaced component shall be reinspected within 15 calendar days after the repair or replacement.

(f) Recordkeeping Requirements

All records of operator inspections, performance tests, repairs, replacements, and reinspections shall be maintained at the facility for a period of two (2) years and made available to the District staff upon request.

(g) Test Methods

(1) Measurement of gaseous VOC concentration shall be conducted according to EPA Reference Method 21, using an appropriate analyzer calibrated with methane, at a distance of 1 cm or less from the source. If the analyzer reading exceeds 500 ppm, an appropriate sample shall be taken for laboratory analysis according to EPA Method 25, as it exists on May 13, 1994, and test procedures shall be performed in accordance with a protocol approved by the Executive Officer's designee.

(2) Measurement of control efficiency of an air pollution control device shall be conducted according to EPA Reference Method 25, as it exists on May 13, 1994, and test procedures shall be performed in accordance with a protocol approved by the Executive Officer's designee.

(h) Exemptions

The provisions of this rule shall not apply to the following:

(1) Equipment which, if covered, would present safety hazards to plant personnel, as documented and established in a previous safety manual or policy, subject to approval by the Executive Officer's designee.

(2) Tanks, pressure-vacuum valves on tanks, and impound basins or spill containments around tanks.

(3) Hatches, which are subject to Rule 1173.

(4) Equipment that exclusively receive, hold, or discharge rainwater, stormwater runoff, or non-contact cooling water.

(5) Well cellars used in emergencies at oil production fields, if clean-up procedures are implemented within 24 hours after each emergency occurrence and completed within ten (10) calendar days.

(6) Sumps or wastewater separators, if the VOC content of the liquid entering is less than 5 mg per liter, as determined by EPA Test Method 8240. Sampling shall occur at the inlet to the sump or wastewater separator.

(i) Violation

Any defect, leak, or condition detected through District inspection, that does not comply with the provisions of paragraphs (c) General Requirements, (d) Requirements for Covers, or (e) Operator Inspection and Maintenance Requirements, shall be a violation of this rule.

(j) Compliance Schedule

(1) Compliance with this rule shall be achieved no later than November 1, 1990, except where air pollution control device(s) must be constructed and operated to achieve compliance.

(2) Applications for permits to construct air pollution control device(s) must be submitted no later than May 1, 1990. For such cases, compliance shall be achieved no later than May 1, 1991.

(k) Rule 464 Applicability

The provisions of Rule 464 shall be applicable to wastewater separators until full compliance with this rule is achieved, or until the dates specified in paragraph (j) Compliance Schedule, whichever is earlier.

9/14/92

(Adopted June 7, 1991)(Amended March 6, 1992)

RULE 1179. PUBLICLY OWNED TREATMENT WORKS OPERATIONS

(a) Applicability

This rule applies to all existing Publicly Owned Treatment Works (POTWs).

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I (General)

chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
tetrafluoroethane (HFC-134a)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)

(B) Group II (Under Review)

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (FC-23)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

(2) LARGE-CAPACITY POTWs are Publicly Owned Treatment Works that have a design capacity of 10 million gallons per day, or greater.

(3) ODOR is a characteristic of a substance that is detectable by the human olfactory organs and may contribute to a public nuisance.

(4) ODOROUS EMISSIONS are odor parameters measured by dynamic dilution olfactometry and odor panels. Odor emissions are expressed as dilution-to-thresholds ratios or odor concentration units.

(5) PUBLICLY OWNED TREATMENT WORKS (POTWs) are wastewater treatment or reclamation plants owned or operated by a public entity, including all operations within the boundaries of the wastewater and sludge treatment plant.

(6) SMALL-CAPACITY POTWs are Publicly Owned Treatment Works that have a design capacity of less than 10 million gallons per day.

(7) VOLATILE ORGANIC COMPOUND (VOC) is any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, carbonates, methane, and the exempt compounds.

(c) Requirements for Large-Capacity POTWs

(1) On or before June 1, 1992, the operator of each POTW shall submit an Emissions Inventory Plan to the Executive Officer for approval. The Emissions Inventory Plan shall:

(A) Include and specify the procedures, source test protocols, methods of analysis, and combustion source test data, where available, that will be used to quantify VOC and odorous emissions as part of a facility-wide VOC Emissions Inventory Report and Odor Evaluation Report, respectively.

(B) Include a description, the name, the operating agency, and the exact location of the facility.

(C) Provide the plant parameters, including, but not limited to, the plant design capacity, the operating capacity, projected capacity, the diurnal and seasonal flow profiles, and a list identifying and quantifying the unit processes and operations used at the facility.

(D) Provide a detailed description of the service area, including the geographic location of the service area boundary in terms of Universal Transverse Mercator (UTM) coordinates, and a plot plan of the main sewer and interceptor lines.

(E) Provide the disaggregated population estimates for service area from the 1991 Air Quality Management Plan, and the projected service population for the years 1995, 2000, 2005, and 2010. Provide the methodology used to project plant flow from population data.

(2) The operator of each POTW shall, within 180 days of approval of the Emissions Inventory Plan, implement the Emissions Inventory Plan as approved by the Executive Officer, and shall submit to the District a

facility-wide VOC Emissions Inventory Report. The facility-wide VOC Emissions Inventory Report shall:

(A) Provide separate, quantitative measurements of the controlled and uncontrolled VOC emissions for each unit process and unit operation at the POTW, except for combustion processes or sources.

(B) Provide a quantitative estimate of the total facility-wide VOC emissions, including the VOC emissions resulting from combustion processes or sources.

(3) The operators of each POTW shall, within 180 days of approval of the Emissions Inventory Plan, prepare and submit to the District an Odor Evaluation Report based on the approved Emissions Inventory Plan. The Odor Evaluation Report shall:

(A) Provide quantitative measurements of the controlled and uncontrolled odorous emissions for each unit process and unit operation at the POTW.

(B) Identify all existing and potential sources of odorous emissions, and specify the likely physical and biological conditions leading to the generation of odorous emissions.

(C) Provide the facility's equipment and process breakdown history for the past two years that have led to odor complaints, and the total number of odor-related citizen complaints received for the past two years.

(D) Recommend any processes, procedures, or operations for facility-wide odorous emissions abatement or elimination.

(d) Requirements for Small-Capacity POTWs

(1) On or before July 1, 1992, the operators of each POTW shall submit a Facility Description Report to the District. The Facility Description Report shall:

(A) Include a description, the name, the operating agency, and the exact location of the facility.

(B) Provide the plant parameters, including, but not limited to, the plant design capacity, the operating capacity, the projected

capacity, the diurnal and seasonal flow profiles, and a list identifying and quantifying the unit processes and operations used at the facility.

(C) Provide a detailed description of the service area, including the geographic location of the service area boundary in terms of Universal Transverse Mercator (UTM) coordinates, and a plot plan of the main sewer and interceptor lines.

(D) Provide the disaggregated population estimates for service area from the 1991 Air Quality Management Plan, and the projected service population for the years 1995, 2000, 2005, and 2010. Provide the methodology used to project plant flow from population data.

(2) On or before January 1, 1993, the operators of each POTW shall submit a wastewater analysis report that provides the mass rate of VOCs present in the influent and effluent wastewater. The analysis shall include measurements for average and peak flow rates.

(e) Joint VOC Emissions Testing

Except for headworks and grit chambers for all large-capacity POTWs, and sedimentation tanks and activated sludge systems for POTWs with a design capacity of 50 million gallons per day or greater, joint VOC emissions testing of unit processes and unit operations may be conducted by two or more of the large-capacity POTWs provided the following conditions are met:

(1) A written request for joint VOC emissions testing is incorporated in the Emissions Inventory Plan required by paragraph (c)(1), including detailed protocols and program description;

(2) A demonstration is made that emissions estimates derived for each unit process or unit operation will be representative of emissions from this type of unit process or unit operation at any of the POTWs involved in the joint VOC testing program;

(3) That emissions estimates developed under joint VOC emissions testing be correlated against wastewater parameters and other POTW emissions data for the same unit process or unit operation; and

(4) That written approval from the Executive Officer is granted.

(f) Exemptions

Odorous emissions resulting from combustion sources are exempt from the requirements of subparagraphs (c)(1)(A) and (c)(3)(A).

(**Adopted**: 10/05/79; **Amended**: 09/10/82; **Rescinded**: 06/28/90;
Adopted: 03/20/01; **Amended:** 07/20/21)

RULE 1300
New Source Review General

(A) Purpose

(1) The purpose of this Regulation is to:

(a) Set forth the requirements for the preconstruction review of all new or Modified Facilities.

(b) Ensure that the Construction, or Modification of Facilities subject to this Regulation does not interfere with the attainment and maintenance of Ambient Air Quality Standards.

(c) Ensure that there is no net increase in the emissions of any Nonattainment Air Pollutants from new or Modified Major Facilities which emit or have the Potential to Emit any Nonattainment Air Pollutant in an amount greater than or equal to the amounts set forth in District Rule 1303(B)(1).

(d) Implement the provisions of California Health & Safety Code §§40709, 40709.5, 40709.6, 40710, 40711, 40712 and 40713 regarding a system by which all reductions in the emissions of air contaminants (which are to be used to offset certain future increases in emissions) shall be banked prior to use to offset future increases in emissions.

(e) Ensure that the Construction or Modification of Facilities subject to this Regulation comply with the preconstruction review requirements as set forth in District Rule 1401 – *New Source Review for Toxic Air Contaminants*.

(f) Ensure that the Construction or Modification of Facilities subject to this Regulation or District Regulation XVII – *Prevention of Significant Deterioration* comply with the preconstruction review requirements as set forth in District Rule 1700.

(B) Applicability

(1) The provisions of this Regulation shall apply to any new or Modified Facility or Emissions Unit which is subject to the provisions of District Rules 201 or 203.

(2) The provisions of this Regulation regarding Emission Reduction Credits (ERCs) shall apply to the creation, banking, ownership and use of ERCs within the District.

(C) Violations

(1) Failure to comply with the provisions of this Regulation shall result in enforcement action under applicable provisions of Division 26, Part 4, Chapter 4 of the California Health and Safety Code (commencing with §42300) and or applicable provisions of the Federal Clean Air Act (42 U.S.C. §§ 7401 et.seq.)

(D) Exemptions

(1) Change of Ownership or Operator

(a) Any Facility which is a continuing operation, shall be exempt from the provisions of this Regulation when:

(i) A new permit to operate is required solely because of permit renewal, change in ownership or a change in facility operator; and
(ii) There is no Modification or change in operating conditions at the Facility.

(2) Change in Rule 219

(a) Any Facility which is a continuing operation, shall be exempt from the provisions of this Regulation when:

(i) A new permit to operate is required solely because of a change to Rule 219 - *Equipment Not Requiring a Permit*; and
(ii) There is no Modification or other change in operating conditions at the Facility.

(E) Interaction with Other Federal, State and District Requirements

(1) Interaction with Other District Rules

(a) ATC(s) and PTO(s) issued pursuant to this Regulation shall also comply with the applicable provisions of District Regulation II.

(2) Prevention of Significant Deterioration (PSD)

(a) Nothing in this Regulation shall be construed to exempt a Facility or an Emissions Unit located in an area designated by USEPA as attainment or unclassified for a Regulated Air Pollutant from complying with the applicable provisions of Title I, Part C of the Federal Clean Air Act (42 U.S.C. §§7470-7492, Prevention of Significant Deterioration of Air Quality), the regulations promulgated thereunder and the provisions of District Rule 1700.

(3) Other Federal Requirements

(a) Nothing in this Regulation shall be construed to exempt a Facility or an Emissions Unit from complying with all other applicable Federal Requirements including, but not limited to, the following:

(i) Any standard or other requirement contained in the applicable implementation plan for the District, and any amendments thereto, approved or promulgated pursuant to the provisions of Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515).

(ii) Any standard or other requirement under 42 U.S.C. §7411, Standards of Performance for New Stationary Sources (Federal Clean Act §111); 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112) or the regulations promulgated thereunder.

(iii) Any standard or other requirement under Title IV of the Federal Clean Air Act (42 U.S.C. §§7651-7651o, Acid Rain) or the regulations promulgated thereunder.

(iv) Any standard or other requirement under Title V of the Federal Clean Air Act (42 U.S.C. §§7661a - 7661f, Permits), the regulations promulgated or the District program approved thereunder.

(v) Any standard or other requirement of the regulations promulgated under Title VI of the Federal Clean Air Act (42 U.S.C. §§7671-7671q, Stratospheric Ozone Protection) or the regulations promulgated thereunder.

(vi) Any national Ambient Air Quality Standard or increment or visibility requirement promulgated pursuant to part C of Title I of the Federal Clean Air Act (42 U.S.C. §7401-7515).

[SIP: See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans]

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(**Adopted:** 10/05/79; **Amended:** 03/07/80; **Amended:** 07/11/80; **Amended:** 09/10/82; **Amended:** 07/12/85; **Amended:** 08/01/86; **Amended:** 12/02/88; **Amended:** 06/28/90; **Amended:** 05/03/91; **Amended:** 12/07/95; **Amended:** 03/20/01; **Amended:** 07/20/21)

RULE 1301
New Source Review Definitions

For the purposes of this Regulation, the following definitions shall apply:

(A) Actual Emissions - The actual rate of emissions of a Regulated Air Pollutant which accurately represent the emissions from Emissions Unit(s). Such emissions shall be Real, Quantifiable and calculated using the verified actual operating hours; production rates; and types of materials processed, stored or combusted as applicable.

(B) Affected State - Any State or local air pollution control agency whose air quality may be affected by the granting of a permit to a Facility or Emissions Unit(s) and which is contiguous to the District; or any State which is located within 50 miles of the Facility.

(C) Air Pollutant - Any air pollution agent or combination of such agents, including any physical, chemical, biological, or radioactive (including source material, special nuclear material and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air.

(D) Air Pollution Control Officer (APCO) - The person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750, and his or her designee.

(E) Air Quality Attainment Plan (AQAP) - A planning document submitted and periodically revised by the District pursuant to the provisions of the California Health & Safety Code §§40910 et seq. and approved by CARB. Also known as Air Quality Management Plan.

(F) Ambient Air Quality Standards - Any National Ambient Air Quality Standard promulgated pursuant to the provisions of 42 U.S.C. §7409 (Federal Clean Air Act §109) or any State Ambient Air Quality Standard promulgated to California Health & Safety Code §39606 unless the particular Ambient Air Quality Standard (either National or State) is specified.

(G) Application for Certification (AFC) - A document submitted to the CEC requesting certification of an EEGF pursuant to the provisions of D1 4/29/2021.

(H) Authority to Construct Permit (ATC) - A District permit required pursuant to the provisions of District Rule 201 which must be obtained prior to the building, erecting, installation, alteration or replacement of any Permit Unit. Such permit may act as a temporary PTO pursuant to the provisions of District Rule 202.

(I) Banking (Banked) - The process of recognizing and certifying emissions reductions of Regulated Air Pollutants pursuant to the provisions of District Rule 1309 which results in the issuance of an ERC Certificate and recordation of the ERC in the Registry.

(J) Begin Actual Construction - The general initiation of physical on-site construction activities on Emissions Unit(s) which are of a permanent nature. Actual construction activities include, but are not limited to, the following:

(1) Installation of building supports and foundations;

(2) Laying of underground pipe work;

(3) Construction of permanent storage structures; and

(4) With respect to a change in operating method, those on-site activities, other than preparatory activities, which mark the initiation of the change.

(K) Best Available Control Technology (BACT) - For Permit Units at Facilities as indicated below:

(1) For a new or Modified Major Facility as defined below the most stringent of:

(a) The most stringent emission limit or control technique which has been achieved in practice, for such Permit Unit, class or category of source; or

(b) LAER as defined below; or

(c) Any other emission limitation or control technique, and/or different fuel demonstrated in practice to be technologically feasible and cost-effective by the APCO or by CARB.

(2) For a new or modified non-major facility:

(a) The most stringent emission limit or control technique which has been achieved in practice for such category or class of source. Economic and technical feasibility may be considered in establishing the class or category of source; or

(b) Any other emission limit or control technique found by the APCO to be technologically feasible and cost effective for such class or category of source.

(3) Under no circumstances shall BACT be determined to be less stringent than the emission limit or control technique contained in any State Implementation Plan as approved by USEPA unless the applicant demonstrates to the satisfaction of the APCO that such limitation or control technique is not achievable.

(4) In no event shall the application of BACT result in the emissions of any Regulated Air Pollutant which exceeds the emissions allowed by any applicable standard or other requirement under 42 U.S.C. §7411, Standards of Performance for New Stationary Sources (Federal Clean Air Act §111) or 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112) or the regulations promulgated thereunder.

(L) California Air Resources Board (CARB) - The California State Air Resources Board the powers and duties of which are described in Part 2 of Division 26 of the California Health & Safety Code (commencing with §39500).

(M) California Energy Commission (CEC) - The California Energy Commission the powers and duties of which are described in Division 15 of the California Public Resources Code (commencing with §25000).

(N) Cogeneration Project - a project which:

(1) Makes sequential use of exhaust steam, waste steam, heat or resultant energy from an industrial, commercial or manufacturing plant or process for the generation of electricity; or

(2) Makes sequential use of exhaust steam, waste steam, or heat from a thermal power plant, in an industrial, commercial, or manufacturing plant or process; and

(3) Such “industrial, commercial or manufacturing plant or process” is not a thermal power plant or portion thereof; and

(4) Does not consist of steam or heat developed solely for electrical power generation; and

(5) The processes listed in subsections (N)(1) and (N)(2) above must meet the conditions set forth in the California Public Resources Code §25134.

(O) Class I Area – Any area listed as Class I in 40 CFR 81.405 – California or an area otherwise specified as Class I in legislation that creates a national monument, a national primitive area, a national preserve, a national recreation area, a national wild and scenic river, a national wildlife refuge or a national lakeshore or seashore.

(P) Commence Construction - When the owner or operator of a Facility or of a Facility undergoing a Major Modification has obtained all necessary preconstruction approvals and/or permits pursuant to the provisions of this Regulation and District Rule 1700, if applicable, and has either:

(1) Begun, or caused to begin, a continuous program of actual on-site construction to be completed within a reasonable time; or

(2) Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the Facility or Emissions Unit(s) to be completed within a reasonable time.

(Q) Comprehensive Emission Inventory – A plan and report prepared pursuant to the most recently published District *Comprehensive Emissions Inventory Guidelines* which consists of numerical representations of the existing and proposed emissions from a Facility and the methods utilized to determine such data.

(R) Construction - Any physical change or change in the method of operation in a Facility (including fabrication, erection, installation, demolition, or modification of Emissions Unit(s)) which would result in a change in Actual Emissions.

(S) Contiguous Property - Two or more parcels of land with a common boundary or separated solely by a public or private roadway, or other public or private right-of-way.

(T) Dispersion Technique –For purposes of determining whether a stack height exceeds good engineering practices, the definition contained in 40 CFR 51.100(hh) in effect on June 15, 2021 shall apply, and is incorporated herein by this reference.

(U) District - The Antelope Valley Air Quality Management District created pursuant to Chapter 14, Part 3 of Division 26 of the California Health & Safety Code (commencing with §41300) the geographical area of which is described in District Rule 103.

(V) Electrical Energy Generating Facility (EEGF) - Any stationary or floating electrical generating facility using any source of thermal energy, with a generating capacity of 50 megawatts or more, and any facilities appurtenant thereto.

(1) Exploratory, development, and production wells, resource transmission lines and other related facilities used in connection with a geothermal exploratory project or a geothermal field development project are not appurtenant facilities for the purposes of this Regulation.

(2) EEGF does not include any wind, hydroelectric or solar photovoltaic electrical generating facility.

(W) Emissions Limitation - One or a combination of Federally Enforceable permit conditions specific to a Permit Unit which restricts its maximum daily emissions, in pounds per day or other appropriate unit of measure, at or below the emissions associated with the maximum design capacity.

(X) Emissions Reduction Credit (ERC) - A credit for an amount and type of emissions reductions of Regulated Air Pollutant(s) granted by the District pursuant to the provisions of District Rule 1309 which is evidenced by recordation in the Registry and by an ERC Certificate.

(Y) Emissions Unit - any article, machine, equipment, contrivance or combination thereof which emits or has the Potential to Emit any Regulated Air Pollutant, including any associated air pollution control equipment.

(Z) Enforceable – Verifiable, legally binding, and practically enforceable.

(AA) ERC Certificate - a certificate evidencing ownership of an ERC issued pursuant to the provisions of District Rule 1309.

(BB) Excessive Concentration – For purposes of determining whether a stack height exceeds good engineering practices, the definition contained in 40 CFR 51.100(kk) in effect June 15, 2021 shall apply, and is incorporated herein by this reference.

(CC) Facility - Any structure, building, Emissions Unit, combination of Emissions Units, or installation which emits or may emit a Regulated Air Pollutant and which are:

(1) Located on one or more Contiguous or adjacent properties within the District;

(2) Under the control of the same person (or by persons under common control); and

(3) Belong to the same industrial grouping, as determined by being within the same two-digit Standard Industrial Classification Code (SICC).

(4) For the purpose of this regulation, such above-described grouping, remotely located but connected only by land carrying a pipeline, shall not be considered one Facility.

(DD) Federal Class I Area – Any Federal land that is classified or reclassified as a Class I Area.

(EE) Federal Land Manager - with respect to any lands in the United States, the Secretary of the department with authority over such lands and their designee.

(FF) Federally Enforceable - any limitation and/or condition which is set forth in permit conditions or in Rules or Regulations that are legally and practically enforceable by USEPA, citizens and the District; including, but not limited to:

(1) Requirements developed pursuant to 42 U.S.C. §7411 - *Standards of Performance for New Stationary Sources* (Federal Clean Air Act §111) or 42 U.S.C. §7412 - *Hazardous Air Pollutants* (Federal Clean Air Act §112) or the regulations promulgated thereunder;

(2) Requirements within any applicable SIP;

(3) Permit requirements established pursuant to 40 CFR 52.21; 51.160-166; or under regulations approved pursuant to 40 CFR 51, subpart I, including operating permits issued under a USEPA approved program that is incorporated into the

State Implementation Plan and expressly requires adherence to any permit issued under such program.

(GG) Fugitive Emissions - Those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

(HH) Good Engineering Practice – For purposes of determining whether a stack height exceeds good engineering practices, the definition contained in 40 CFR 51.100(ii) in effect on June 15, 2021 shall apply, and is incorporated herein by reference.

(II) "Halocarbons" - For the purpose of this rule, halocarbons are 1,1,1-trichloroethane, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (CFC-23), methylene chloride, trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), and chloropentafluoroethane (CFC-115).

(JJ) "Historic Actual Emissions" (HAE) - The Actual Emissions of an existing Emissions Unit or combination of Emissions Units, including Fugitive Emissions directly related to the Emissions Unit(s), if the Facility belongs to one of the Facility categories as listed in 40 CFR 51.165(a)(1)(iv)(C), calculated pursuant to the provisions of District Rule 1304(E)(2).

(KK) Lowest Achievable Emissions Rate (LAER) - The rate of emissions which is not in excess of the amount allowable under the applicable New Source Performance Standards as found in 40 CFR 60 and which reflects the most stringent emissions limitation which is:

(1) Contained in the SIP of any State for such class or category of source, unless the owner/operator of the source demonstrates that such limitations are not achievable; or

(2) Achieved in practice by such class or category of source.

(LL) Major Facility - Any Facility which emits or has the Potential to Emit any Regulated Air Pollutant or its Precursors in an amount greater than or equal to the amounts set forth in District Rule 1303(B)(1).

(1) Any Modification at a Facility which, by itself, would emit or have the Potential to Emit any Regulated Air Pollutant or its Precursors in an amount greater than or equal to the amounts listed in District Rule 1303(B)(1), shall also constitute a Major Facility.

(2) The Fugitive Emissions of a Facility shall not be included in the determination of whether a Facility is a Major Facility unless the Facility belongs to one of the categories of Facilities as listed in 40 CFR 51.165(a)(1)(iv)(C).

(MM) Major Modification - Any Modification in a Facility that would result in a Significant Net Emissions Increase of any Regulated Air Pollutant as defined below.

(NN) Mandatory Class I Federal Area or Mandatory Federal Class I Area – Any area identified in 40 CFR 81, Subpart D (commencing with 81.400) specifically 40 CFR 81.405 – California.

(OO) Military Base Designated for Closure or Realignment - A military base designated for closure or downward realignment pursuant to the Defense Base Closure and Realignment Act of 1988 (PL 100-526) or the Defense Base Closure and Realignment Act of 1990 (10 U.S.C. §§2687 et seq.).

(PP) Mobile Source - A device by which any person or property may be propelled, moved, or drawn upon the surface, waterways, or through the atmosphere, and which emits air contaminants. For the purpose of this Regulation, mobile source includes registered Motor Vehicles which are licensed, or driven on the public roadways of the state of California.

(QQ) Modeling - An air quality simulation model based on specific assumptions and data; which comply with the most current version of 40 CFR Appendix W or an alternative method approved by USEPA after an opportunity for public notice and comment; and which have been approved in advance and in writing by the APCO.

(RR) Modification (Modified) - Any physical or operational change to a Facility or an Emissions Unit to replace equipment, expand capacity, revise methods of operation, or modernize processes by making any physical alteration or change, change in method of operation, addition to an existing Permit Unit and/or change in hours of operation which result in a Net Emission Increase of any Regulated Air Pollutant or which result in the emission of any Regulated Air Pollutant not previously emitted.

(1) A physical or operational change shall not include:

(a) Routine maintenance, repair and/or replacement; or

(b) A change in ownership of an existing Facility with valid PTO(s); or

(c) An increase in the production rate, unless:

(i) Such increase will cause the maximum design capacity of the Emission Unit to be exceeded; or
(ii) Such increase will exceed a previously imposed federally enforceable limitation contained in a permit condition.

(d) An increase in the hours of operation, unless such increase will exceed a previously imposed Federally Enforceable limitation contained in a permit condition.

(e) The alteration or replacement of an Emissions Unit(s) where the following requirements are met:

(i) The replacement unit is functionally identical as the original Emissions Unit(s) being replaced; and
(ii) The maximum rating of the replacement Emissions Unit(s) will not be greater than that of the Emissions Unit(s) being replaced; and
(iii) The Potential to Emit for any Regulated Air Pollutant will not be greater from the replacement Emissions Unit(s) than from the original Emissions Unit(s) when the replacement Emissions Unit(s) is operated at the same permitted conditions as the original Emissions Unit(s) and as if current BACT had been applied; and
(iv) The replacement does not occur at a Major Facility and is not a Major Modification.
(v) Emissions Unit(s) shall not be considered a functionally identical replacement if USEPA objects to such determination on a case-by-case basis.

(f) The relocation of an existing Facility, utilizing existing equipment where the following requirements are met:

(i) The relocation does not result in an increase in emissions from the Facility; and
(ii) The relocation is to a site within 10 miles of the original Facility location; and
(iii) The relocation is to a site which is not in actual physical contact with the original site and the sites are not separated soley by a public roadway or other public right-of-way.
(iv) The relocation is to a site within a Federal designation which is less than or equal to the designation or classification of the original site; and
(v) The relocation occurs within 1 year of the Facility ceasing operations at its original location; and
(vi) The relocation does not occur at a Major Facility and is not a Major Modification; and
(vii) Any new or replacement equipment associated with the relocation complies with the applicable provisions of this Rule.

(g) The periodic movement of internal combustion engines and gas turbines within a Facility because of the nature of their operation provided that all of the following conditions are met:

(i) The engine or turbine is used to remediate soil or groundwater contamination as required by federal, state, or local law or by a judicial or administrative order; or for flight-line operations.

(ii) The engine or turbine is not periodically moved solely for the purpose of qualifying for this exemption.

(iii) Emissions from the engine, by itself, do not cause an exceedance of any Ambient Air Quality Standard.

(iv) Emissions from the engine do not exceed the following:

Volatile Organic Compounds (VOC)	75 pounds per day
Nitrogen Oxides (NO_x)	100 pounds per day
Sulfur Oxides (SO_x)	150 pounds per day
Particulate Matter (PM_{10})	150 pounds per day
Carbon Monoxide (CO)	550 pounds per day

(SS) Motor Vehicle - Any self-propelled Vehicle, including, but not limited to cars, trucks, buses, golf carts, vans, motorcycles, recreational Vehicles, tanks, and armored personnel carriers as defined in California Vehicle Code §415 and/or §670 (as in effect on the most recent amendment date of this Rule) including, but not limited to, any Motor Vehicles which are registered, licensed, or driven on the public roadways of the State of California

(TT) Nearby – For purposes of determining whether a stack height exceeds good engineering practices, the definition contained in 40 CFR 51.100(jj) in effect on June 15, 2021 shall apply, and is incorporated herein by this reference.

(UU) Net Emissions Increase - An emissions change as calculated pursuant to District Rule 1304(B)(2) which exceeds zero.

(VV) New Source Review Document (NSR Document) - A document issued by the APCO pursuant to the procedures of District Rule 1302 for a Facility subject to the provisions of District Rule 1303(B) which includes, but is not limited to, all analysis relating to the project, Offsets required for the project, and proposed conditions for any required ATC(s) or PTO(s).

(WW) Nonattainment Air Pollutant - Any Regulated Air Pollutant for which the District, or a portion thereof, has been designated nonattainment as codified in 40 CFR 81.305, or for which has been designated nonattainment by the CARB pursuant to California Health and Safety Code §39607. A pollutant for which the District is designated nonattainment by USEPA shall be referred to in this regulation as a *Federal Nonattainment Pollutant* while a pollutant for which the District is designated nonattainment by CARB shall be referred to as a *State Nonattainment Pollutant*.

(XX) Nonattainment Area – Any area within the jurisdiction of the District which has been designated nonattainment by USEPA as exceeding a National Ambient Air Quality Standard as codified in 40 CFR 81.305 or which has been designated nonattainment by CARB as exceeding a State Ambient Air Quality Standard pursuant to California Health

& Safety Code §39607. An area designated nonattainment by USEPA shall be referred to in this regulation as a *Federal Nonattainment Area* while an area designated nonattainment by CARB shall be referred to as a *State Nonattainment Area*.

(YY) Notice of Intention (NOI) - A notice regarding an EEGF produced pursuant to the provisions of Division 15 of the California Public Resources Code (commencing with §25000).

(ZZZ) Off-road Vehicle - Any vehicle which is not licensed for use on the public roadways in the State of California and is used exclusively at the Facility.

(AAA) Offset Emission Reductions (Offsets) - Emission Reduction Credits (ERCs) or Simultaneous Emissions Reductions (SERs) when used to offset emission increases of Regulated Air Pollutants on a pollutant category specific basis. ERCs shall be calculated and comply with the provisions of District Rule 1309. SERs shall be calculated and comply with the provisions of District Rule 1304(C). ERCs and SERs shall be adjusted, if necessary, pursuant to the applicable provisions of District Rule 1305.

(BBB) Permanent - Continuing or enduring without fundamental marked change. As used for the purposes of Offset Emissions Reductions, a reduction that is Federally Enforceable via changes in permits or other means for the life of the corresponding increase in emissions.

(CCC) Permit to Operate" (PTO) - A District permit required pursuant to the provisions of District Rule 203 which must be obtained prior to operation of a Permit Unit. An ATC may function as a temporary PTO pursuant to the provisions of District Rule 202.

(DDD) Permit Unit - Any Emissions Unit which is required to have a PTO pursuant to the provisions of District Rule 203.

(EEE) Person - Includes but is not limited to: any individual, firm, association, organization, partnership, business trust, corporation, limited liability company, company, proprietorship, trust, joint venture, government, political subdivision of a government, or other entity or group of entities.

(FFF) PM_{10} - Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers.

(GGG) Potential to Emit (PTE) - The maximum capacity of a Facility or Emissions Unit(s) to emit any Regulated Air Pollutant under its physical and operational design.

(1) Any physical or operational limitation on the capacity of the Facility or Emissions Unit(s) to emit an Air Pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processes, shall be treated as part of its design only if the limitation or the effect it would have on emissions is Federally Enforceable.

(2) Fugitive Emissions of Hazardous Air Pollutants shall be included in the calculation of a Facility's or Emission Unit(s)' Potential to Emit.

(3) Fugitive Emissions of other Air Pollutants shall not be included in the calculations of a Facility or Emissions Unit(s) Potential to Emit unless the Facility belongs to one of the categories listed in 40 CFR 51.165(a)(1)(iv)(C).

(4) Secondary Emissions shall not be included in the calculations of a Facility or Emissions Unit(s) Potential to Emit.

(HHH) Precursor - A substance which, when released to the atmosphere, forms or causes to be formed or contributes to the formation of a Regulated Air Pollutant. These include, but are not limited to the following:

Precursors	Secondary Pollutants
Ammonia	a) PM_{10}
Hydrocarbons and substituted hydrocarbons (Volatile Organic Compounds)	a) Photochemical oxidant (ozone) b) The organic fraction of PM_{10} c) $PM_{2.5}$
Nitrogen dioxide (NO_2)	a) $PM_{2.5}$
Nitrogen oxides (NO_x)	a) Nitrogen dioxide (NO_2) b) The nitrate fraction of PM_{10} c) Photochemical oxidant (ozone)
Sulfur dioxide (SO_2)	a) $PM_{2.5}$
Sulfur oxides (SOx)	a) Sulfur dioxide (SO_2) b) Sulfates (SO_4) c) The sulfate fraction of PM_{10}

(III) Proposed Emissions - the Potential to Emit for a new or post-modification Emissions Unit(s), or a new or post-modification Facility as constructed or modified, including Fugitive Emissions directly related to the Emissions Unit(s) if the Facility belongs to one of the Facility categories as listed in 40 CFR 51.165(a)(1)(iv)(C), calculated in pounds per year and determined pursuant to the provisions of Rule 1304(D)(3).

(JJJ) "Quantifiable" - Capable of being determined. As used for the purposes of Offset Emissions Reductions a reliable, replicable and accurate basis for calculating the amount, rate, nature and characteristic of an emissions reduction by adhering to a protocol that is established considering USEPA, CARB and District policies and procedures. The same method of calculating emissions should generally be used to quantify the emission levels before and after any reduction in emissions.

(KKK) Readjustment - The process of revising the amount of AERs and ERCs issued due to changes in control measures identified in the District's AQAP or SIP.

(LLL) Real - Actually occurring, implemented and not artificially devised.

(MMM) Reasonably Available Control Technology (RACT) - Any device, system, process modification, apparatus, technique or combination of the above which results in the lowest emissions rate and which is reasonably available considering technological and economic feasibility.

(NNN) Reduced Sulfur Compounds - Hydrogen sulfide, carbon disulfide and carbonyl sulfide.

(OOO) Registry (ERC Registry) - The document established by District Rule 1309(B) which lists all ERCs, their amounts, owners and serves as evidence of ownership of an ERC.

(PPP) Regulated Air Pollutant - Any of the following Air Pollutants:

(1) Any Air Pollutant, and its Precursors, for which an Ambient Air Quality Standard has been promulgated.

(2) Any Air Pollutant that is subject to a standard under 42 U.S.C. §7411 - *Standards of Performance for New Stationary Sources* (Federal Clean Air Act §111) or the regulations promulgated thereunder.

(3) Any substance which has been designated a Class I or Class II substance under 42 U.S.C. §7671a (Federal Clean Air Act §602) or the regulations promulgated thereunder.

(4) Any Air Pollutant subject to a standard or other requirement established pursuant to 42 U.S.C. §7412 - *Hazardous Air Pollutants* (Federal Clean Air Act §112) or the regulations promulgated thereunder.

(QQQ) Seasonal Source - Any Facility or Emissions Unit(s) with more than seventy-five percent (75%) of its annual emissions within a consecutive 120-day period.

(RRR) Secondary Emissions - Emissions which would occur as a result of the Construction or operation of a Facility or Major Modification to a Facility but which do not come from the Facility or the Major Modification itself.

(1) These emissions must be specific, well defined, quantifiable, and impact the same general area as the Facility or the Major Modification which causes the Secondary Emissions.

(2) Secondary Emissions shall include emissions from any offsite support Facility which would not be constructed or increase its emissions except as the result of the construction or operation of the Facility or Major Modification.

(3) Secondary Emissions shall not include any emissions which come directly from a Mobile Source.

(SSS) Shutdown - the earlier of either:

(1) The permanent cessation of emissions from Emissions Unit(s); or

(2) The surrender of Emissions Unit(s) operating permit.

(TTT) Significant - A Net Emissions Increase from a Major Modification which would be greater than or equal to the following emissions rates for those Nonattainment Air Pollutants and their Precursors dependent upon Facility location.

POLLUTANT	EMISSION RATE (Within a Severe Federal ozone nonattainment area)	EMISSION RATE (Within a moderate PM_{10} nonattainment area)
Carbon Monoxide (CO)	100 tpy	100 tpy
Lead (Pb)	0.6 tpy	0.6 tpy
Oxides of Nitrogen (NOx)	25 tpy	40 tpy
PM10	N/A	15 tpy
Reactive Organic Compounds (ROC)	25 tpy	40 tpy
Sulfur Dioxide (SO2)	40 tpy	40 tpy

(1) If a Facility is located in more than one Federal Nonattainment Area then the lower of the limits listed above shall apply on a pollutant category specific basis.

(UUU) Simultaneous Emission Reduction (SER) - A Federally Enforceable reduction in the emissions of an existing Emissions Unit(s), calculated pursuant to the provisions of District Rule 1304(C), which occurs in the same permitting action as when such SERs are used pursuant to this Regulation and is a reduction in the Historic Actual Emissions of the Emissions Unit(s).

(VVV) South Coast Air Quality Management District (SCAQMD) – The air district created pursuant to Division 26, Part 3, Chapter 5.5 of the Health & Safety Code (commencing with §40400).

(WWW) Stack – Any point in a Facility or Emission Unit designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.

(XXX) Stack in Existence - For purposes of determining whether a stack height exceeds good engineering practices, the definition contained in 40 CFR 51.100(gg) in effect on June 15, 2021 shall apply, and is incorporated herein by this reference.

(YYY) State Implementation Plan (SIP) - A plan for the reduction of Regulated Air Pollutants created by the District and CARB and approved by USEPA pursuant to the provisions of Title I of the Federal Clean Air Act (42 U.S.C. §§7401 et seq.) and the regulations promulgated thereunder.

(ZZZ) Surplus – That which is not otherwise required. As used for the purposes of Offset Emissions Reductions the amount of emissions reductions that are, at the time of generation and use, not otherwise required by Federal, State or District law, rule, order, permit or regulation; not required by any legal settlement or consent decree; and not relied upon to meet any requirement related to the California State Implementation Plan (SIP).

(AAAA) Total Organic Compounds - Compounds of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

(BBBB) United States Environmental Protection Agency (USEPA) - The United States Environmental Protection Agency, the Administrator of the USEPA and their authorized representative.

(CCCC) Volatile Organic Compounds (VOC) - Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions and those compounds listed in 40 CFR 51.100(s)(1).

[See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans]

(**Adopted:** 10/05/79; **Amended:** 03/07/80; **Amended:** 07/11/80; **Amended:** 09/10/82; **Amended:** 07/12/85; **Amended:** 08/01/86; **Amended:** 12/02/88; **Amended:** 06/28/90; **Amended:** 05/03/91; **Amended:** 12/07/95; **Amended:** 03/20/01; **Amended:** 8/15/06; **Amended:** 07/20/21)

RULE 1302
New Source Review Procedure

(A) Applicability.

(1) This rule shall apply to all new or Modified Facilities, including EEGFs as defined in District Rule 1301(V), pursuant to the provisions of District Rule 1306.

(B) Applications.

(1) Any application for an ATC or modification to a PTO, submitted pursuant to the procedures of District Regulation II, shall be analyzed to determine if such application is complete. An application shall be deemed complete when it contains the following, as applicable:

(a) General Application Requirements.

(i) Enough information regarding the location, design, construction, and operation of the new or modified Facility or Emissions Unit(s) to allow all the applicable analysis and calculations required under this Regulation to be made, including but not limited to: identification of all new or modified Emissions Unit(s); the amount of potential emissions from such new or modified Emissions Unit(s); information sufficient to determine all rules, regulations or other requirements applicable to such Emissions Unit(s); a determination of whether stack height exceeds Good Engineering Practice; and any necessary air quality modeling consistent with the most recent USEPA guidance, including but not limited to, the requirements contained in 40 CFR 51 Appendix W, modeling protocols and the results of such modeling.

(ii) A Comprehensive Emissions Inventory. If a Facility has a current approved Comprehensive Emissions Inventory on file with the District such Facility may, upon written request and approval of the APCO, update the Comprehensive Emissions Inventory to reflect the addition, deletion or modification of all Emission Unit(s) affected by the application.

(iii) A District Regulation XVII applicability analysis sufficient to determine whether the Facility or Modification is or is not a Major PSD Facility or a Major PSD Modification as defined in District Rule 1700(B), using the applicability procedures adopted by reference in District Rule 1700.

(iv) Any other information specifically requested by the District.

(b) Application Requirements for Facilities Requiring Offsets.

(i) For all new and modified Facilities requiring offsets pursuant to District Rule 1303(B):

a. An alternative siting analysis including an analysis of alternative sites, sizes and production processes pursuant to 42 U.S.C. §7503(a)(5) (Federal Clean Air Act §173(a)(5)). Such analysis shall be functionally equivalent to that required pursuant to Division 13 of the California Public Resources Code (commencing with §21000.)

b. A statewide compliance certification stating that all Facilities which are under the control of the same person (or persons under common control) in the State of California are in compliance with all applicable emissions limitations and standards under the Federal Clean Air Act and the applicable implementation plan for the air district in which the other Facilities are located.

(c) Mandatory Federal Class I Area Visibility Protection Application Requirements.

(i) An application for a new or modified Major Facility or a Facility with a Major Modification which may have an impact upon visibility in any Mandatory Federal Class I Area, shall include in its application an analysis of any anticipated impacts on visibility within that Mandatory Federal Class I Area. Such analysis shall include, but is not limited to, an analysis of the factors found in 40 CFR 51.307(a).

(d) Prevention of Significant Deterioration (PSD) Application Requirements.

(i) For a Facility which is a Major PSD Facility or Major PSD Modification as defined in District Rule 1700(B):

a. A modeling protocol consistent with the most recent USEPA guidance including but not limited to the requirements contained in 40 CFR 51 Appendix W, as approved by the APCO. Such protocol shall also be submitted to USEPA and, if applicable, the Federal Land Manager(s) of any potentially impacted area; and

b. A control technology review pursuant to 40 CFR 52.21(j); and

c. A source impact analysis, including but not limited to analysis pursuant to 40 CFR 52.21(k) and a per-application analysis pursuant to 40 CFR 52.21(m)(1); and

d. Information required pursuant to 40 CFR 52.21(n) if not provided elsewhere in the application; and

e. An additional impact analysis including but not limited to analysis of direct and indirect impacts of the proposed

emissions increase on soils, vegetation and visibility, pursuant to 40 CFR 52.21(o); and

f. An analysis of anticipated impacts on a Federal Class I Area if the Facility is located within 63 miles (100 kilometers) of such area pursuant to 40 CFR 52.21(p); and

(e) Determination of Application Completeness.

(i) The APCO shall determine whether the application is complete not later than 30 calendar days after receipt of the application, or after such longer time as both the applicant and the APCO may agree in writing.

(f) Trade Secret Information.

(i) The confidentiality of trade secrets contained in an application shall be considered in accordance with Government Code §6254.7 and 18 U.S.C. §1905.

(ii) Any information claimed by an applicant to be trade secret or otherwise confidential shall be clearly marked as such.

(2) Notifications Regarding Applications.

(a) After the determination of completeness has been made, the APCO shall transmit a written determination of completeness or incompleteness immediately to the applicant at the address indicated on the application.

(i) If the application is determined to be incomplete, the determination shall specify which parts of the application are incomplete and how they can be made complete.

a. Upon receipt by the APCO of information required to render an application complete or upon resubmittal of the entire application, a new 30-day period in which the APCO must determine completeness, shall begin.

(ii) When an application subject to the provisions of District Rule 1700 is determined to be complete the APCO shall transmit a copy of the written completeness determination to USEPA and, upon request, provide USEPA with a copy of the application.

(iii) If the application contains an analysis of anticipated visibility impacts on a Mandatory Federal Class I Area, the APCO shall, within 30 calendar days after receipt of the application, notify USEPA and the Federal Land Manager of the affected Mandatory Federal Class I Area.

a. The APCO shall include in such notification a copy of the application and the analysis of anticipated impacts on the affected Mandatory Federal Class I Area.

(b) When the application has been determined to be complete the APCO shall then commence the analysis process detailed in section (C) below.

(c) In the alternative, the APCO may complete the issuance of the ATC(s) within the 30 calendar days after receipt of the application so long as all the applicable analysis required pursuant to subsection (C) has been performed and the provisions of subsection (C)(7)(e) applies.

(3) Effect of Complete Application.

(a) After an application is determined to be complete, the APCO shall not subsequently request of an applicant any new or additional information which was not required pursuant to subsection (B)(1) or by a determination of incompleteness pursuant to subsection (B)(2)(a).

(b) Notwithstanding the above, the APCO may, during the processing of the application, require an applicant to clarify, amplify, correct or otherwise supplement the information required at the time the complete application was received.

(c) A request by the APCO for clarification pursuant to subsection (B)(3)(b) above does not waive, extend, or delay the time limits in this rule for final action on the completed application, except as the applicant and the APCO may both agree in writing.

(4) Fees.

(a) The APCO shall not perform any analysis as set forth in section (C) below unless all applicable fees, including but not limited to the Project Evaluation Fee for Complex Sources as set forth in District Rule 301, have been paid.

(C) Analysis.

(1) Determination of Emissions.

(a) The APCO shall analyze the application to determine the specific pollutants, amount, and change (if any) in emissions pursuant to the provisions of District Rules 1304 and 1700.

(2) Determination of Requirements.

(a) After determining the emissions change (if any), the APCO shall determine if any of the provisions of District Rule 1303 apply to the new or modified Facility.

(b) If none of the provisions of District Rule 1303 apply to the new or modified facility, then the APCO shall continue the analysis at subsection (C)(4) below.

(c) If subsection (A) is the only provision of District Rule 1303 applicable to the new or modified Facility then the APCO shall:

(i) Develop and include conditions on any proposed ATC or PTO to implement BACT on all new or modified Emissions Unit(s) at the Facility; and
(ii) Continue the analysis at subsection (C)(4) below.

(d) If subsection (B) of District Rule 1303 apply to the new or modified Facility then the APCO shall:

(i) Commence a Facility engineering analysis; and
(ii) Develop and include conditions to implement BACT on any proposed ATC or PTE required for each new or Modified Emission Unit(s) subject to the provisions of District Rule 1303(A); and
(iii) Continue the analysis at subsection (C)(3) below.

(3) Determination of Offsets.

(a) If the provisions of District Rule 1303(B) apply to the new or modified Facility, then the APCO shall calculate the amount of Offsets required on a pollutant by pollutant basis pursuant to the provisions of District Rules 1304(B)(2) and 1305.

(i) The APCO shall thereafter notify the applicant in writing of the specific amount of Offsets.

(b) Upon receipt of the notification, the applicant shall provide to the APCO a proposed Offset package which contains evidence of a sufficient quantity of Offsets eligible for use pursuant to the provisions of District Rule 1305.

(i) The APCO shall analyze the proposed Offset package to determine if an Adjustment in the value of such Offsets is required and apply the applicable offset ratio (if any) pursuant to the provisions of District Rule 1305.
a. If the Offset package includes Mobile, Area, or Indirect Source ERCs pursuant to District Rule 1305(C)(3) or proposes the use of interpollutant Offsets pursuant to District Rule 1305(C)(6) the APCO shall notify USEPA by sending a copy of the application, the proposed Offset package and all relevant information thereto.
(ii) The APCO shall disallow the use of any Offsets which were created by the shutdown, modification or limitation of existing Emissions Unit(s) when such Offsets:
a. Are not in compliance with the applicable provisions of District Rule 1305 or 40 CFR 51.165(a)(3)(ii)(C); or
b. USEPA has disapproved the applicable implementation plan for the District, or USEPA has made a finding of a failure to submit for the District of all or a portion of an applicable implementation plan.

(iii) After determining that the Offsets are Real, Enforceable, Surplus, Permanent and Quantifiable; that a sufficient quantity have been provided; and after any permit modifications required pursuant to District Rules 1305 or 1309 have been made, the APCO shall approve the use of the Offsets.

a. For a new or Modified Major Facility or a Major Modification which is located in a Federal Nonattainment Area the APCO's approval shall be subject to review and comment by CARB and USEPA pursuant to subsection (D)(2) below.

(iv) The Offsets must be obtained prior to time the new or Modified Facility Begins Actual Construction.

(c) After determination of the amount of pollutant specific offsets required and approval of the Offset package the APCO shall continue the analysis at subsection (C)(4) below.

(4) Stack Height Analysis.

(a) If the application contains a determination showing that the stack height exceeds Good Engineering Practice the APCO shall:

(i) Provide that the degree of emission limitation required of the new or modified Facility or Emission Unit(s) is not affected by so much of the stack height that exceeds Good Engineering Practice or by any other Dispersion Technique; and

(ii) Notify the public of the availability of the demonstration study and provide opportunity for a public hearing pursuant to the provisions of subsection (C)(7)(b)(ii) before an ATC is issued; and

(iii) Ensure any field study or fluid model used to demonstrate Good Engineering Practicw stack height and any determination concerning excessive concentration is approved by the EPA and the Control Officer prior to any emission limit being established.

(b) The provisions of this subsection do not restrict, in any manner, the actual stack height of any Facility.

(c) The APCO shall continue the analysis at subsection (C)(5) below.

~~(5) Determination of Requirements for Toxic Air Contaminants.~~

~~(a) The APCO shall also determine if any of the provisions of District Rule 1401 apply to the new or modified Facility.~~

~~(b) If any of the provisions of District Rule 1401 apply to the new or modified Facility the APCO shall:~~

~~(i) Require the Facility to comply with the applicable provisions of those Rules prior to proceeding with any further analysis or processing of an application pursuant to this Regulation; and~~

(ii) Add any conditions to the applicable permits required to implement any provisions of those Rules.

(c) After determining which, if any, requirements of District Rule 1401 apply and any necessary actions taken, the APCO shall continue the analysis at subsection (C)(6) below.

(d) This subsection is not submitted to USEPA and is not intended to be include as part of the California State Implementation Plan (SIP).

(6) Determination of Requirements for Prevention of Significant Deterioration (PSD).

(a) The APCO shall review the PSD applicability analysis submitted pursuant to subsection (B)(1)(a)(iii) to determine if the proposed new or modified Facility is or is not a Major PSD Facility or a Major PSD Modification as defined in District Rule 1700.

(b) If the APCO determines that proposed new or modified Facility is a Major PSD Facility or a Major PSD Modification then the APCO shall:

(i) Perform the analysis required pursuant to the provisions of District Rule 1700(D)(2); and
(ii) Either complete the PSD permit issuance pursuant to the provisions of District Rule 1700(D) or combine the appropriate analysis adding any necessary conditions in conjunction with those required pursuant to this Regulation; and
(iii) Continue the analysis at subsection (C)(7) below.

(c) If none of the provisions of District Rule 1700 apply, the APCO shall continue the analysis at subsection (C)(7) below

(7) Determination of Notice Requirements.

(a) The APCO shall determine the type of notice required for the proposed new or modified Facility.

(b) **Major NSR Notice:** If the new or Modified Facility is subject to any of the following, then the APCO shall implement the applicable provisions of section (D) prior to the issuance of the ATC(s) or modification of the PTO(s).

(i) The provisions of District Rule 1303(B); or
(ii) The provisions of subsection (C)(4) regarding stack height greater than Good Engineering Practice; or
(iii) The provisions of District Rule 1700; or.
(iv) The provisions of District Regulation XXX and the action involves the issuance, renewal or Significant Modification of the Federal Operating Permit.

(c) **Toxic NSR Notice:** If any proposed new or modified Emissions Units at the new or modified Facility require public notification pursuant to the provisions of District Rule 1401(E)(3)(e)(iii) or (F)(2)(b) then the APCO shall:

(i) Provide the notice specified by the applicable provision(s) of District Rule 1401 in addition to any other required notice; or

(ii) Provide notice pursuant to the provisions of subsection (D)(3)(a) ensuring that such notice contains any additional information required pursuant to the applicable provision(s) of District Rule 1401.

(iii) This subsection is not submitted to USEPA and is not intended to be included as part of the California State Implementation Plan (SIP).

(d) **Minor NSR Notice:** If the new or modified Facility is not subject to any of the provisions listed in subsections (7)(b) or (c) above, but is subject to any of the following, then the APCO shall commence the issuance of the ATC(s) or modification of the PTO(s) pursuant to the provisions of District Regulation II and provide notice pursuant to the provisions of subsection (D)(3)(a)(ii):

(i) The emissions change for any Regulated Air Pollutant as calculated under subsection (C)(1) is greater than any of the following:

20 tpy or more of VOC, 20 tpy or more of NOx, 12 tpy or more of PM10, or 80% of the Major Facility Threshold for any other Nonattainment Air Pollutant as set forth in District Rule 1303(B); or

8 tpy or more of any Hazardous Air Pollutant or 20 tpy of any combination of Hazardous Air Pollutants or 80% of a lesser quantity of a Hazardous Air Pollutant as the USEPA may establish by rule; or

The Federal Significance Level for a Regulated Air Pollutant as defined in 40 CFR 52.21(b)(23).

(e) **Permit Issuance Notice:** If the new or modified Facility is not subject to any of the provisions listed in subsection (7)(b), (c) or (d) above, then the APCO shall commence the issuance of the ATC(s) or modification of the PTO(s) pursuant to the provisions of District Regulation II and subsection (D)(3)(a)(iii).

(D) Permit Issuance Procedure.

(1) Preliminary Decision.

(a) After all required analyses have been completed, the APCO shall issue a preliminary decision as to whether the New Source Review Document

should be approved, conditionally approved, or disapproved and whether ATC(s) should be issued to the new or Modified Facility.

(b) The preliminary decision shall include:

(i) A succinct written analysis of the proposed approval, conditional approval or disapproval; and
(ii) If approved or conditionally approved, proposed permit conditions for the ATC(s) or modified PTO(s) and the reasons for imposing such permit conditions; and
(iii) A Draft Permit.

(c) The preliminary decision and draft NSR Document may also be combined with the draft PSD Document, if any, and any document(s) produced pursuant to District Regulation XXX. In such case the preliminary decision, draft NSR Document and draft PSD Document shall conform to the applicable provisions of District Regulation XXX and 40 CFR 70.6(a)-(g), 70.7(a)-(b) and will serve as the draft Statement of Legal and Factual Basis and draft Federal Operating Permit.

(2) CARB, USEPA, Federal Land Manager, and Affected State Review.

(a) If notice is required pursuant to the provisions of subsection (C)(7)(b)-(d) the APCO shall, concurrently with the publication required pursuant to subsection (D)(3) below, send a copy of the preliminary decision, the draft permit, and any underlying analysis to CARB, USEPA and any Affected State.

(b) CARB, USEPA and any Affected State shall have 30 days from the date of publication of the notice pursuant to subsection (D)(3) below to submit comments and recommendations regarding the preliminary decision.

(i) If the permitting action involves the issuance, renewal or Significant Modification of the Federal Operating Permit and that action is being performed concurrently with the actions pursuant to this Regulation then CARB, USEPA, and any Affected State shall have 45 days from the date of publication of the notice to submit comments.

(c) Upon receipt of any comments and/or recommendations from CARB USEPA and/or any Affected State the APCO shall either:

(i) Accept such comments and/or recommendations and modify the preliminary decision accordingly; or
(ii) Reject such comments and/or recommendations, notify CARB, USEPA, and/or the Affected State of the rejection and the reasons for such rejection.

(d) For applications containing an analysis of anticipated visibility impacts on a Federal Class I Area pursuant to subsection (B)(1)(c) or (B)(1)(d)(i)e.-f. above, the APCO, upon receipt of any comments from USEPA or the Federal Land Manager of the affected Federal Class I Area, shall:

(i) Accept such comments and/or recommendations and modify the preliminary decision accordingly; or
(ii) Reject such comments and/or recommendations, notify CARB, USEPA, and/or the Federal Land Manager of the affected Federal Class I Area of the rejection and the reasons for such rejection.

(e) For applications containing an Offset package submitted pursuant to subsection (C)(3)(b) where the Offset package includes Mobile, Area, or Indirect source ERCs pursuant to District Rule 1305(C)(3) or proposes the use of interpollutant Offsets pursuant to District Rule 1305(C)(6), the APCO, upon receipt of comments from USEPA, shall:

(i) Accept such comments and/or recommendations and modify the preliminary decision accordingly; and
(ii) Require changes to the Offset package by the applicant if such are necessary.

(3) Public Review and Comment.

(a) Public Notice.

(i) **Major NSR Notice and Toxic NSR Notice:** If notice is required pursuant to the provisions of subsections (C)(7)(b), (C)7)(c) or (D)(4)(d) then, within 10 days of the issuance of the preliminary determination, the APCO shall:
a. Produce a notice containing all the information set forth in subsection (D)(3)(b)(i); and
b. Publish a notice by posting the notice and draft permit on the District's website for, at a minimum, the duration of the public comment period; and
c. Send a copy of the notice containing the information set forth in subsection (D)(3)(b)(i) to the applicant; CARB; USEPA; Affected State(s); the City and County where the proposed Facility or Modification is located; any State or Federal Land Manager or Indian governing body who's lands might be affected by emissions from the proposed Facility or Modification; and to all persons who have requested such notice and/or on a list of persons requesting notice of actions pursuant to this regulation generally on file with the District; and
d. Provide notice by other reasonable means, if such notice is necessary to assure fair and adequate notice to the public.

(ii) **Minor NSR Notice:** If notice of permit issuance is required pursuant to the provisions of subsection (C)(7)(d) then, within 10 days of the issuance of the engineering analysis the APCO shall:

a. Produce a notice containing the information set forth in subsection (D)(3)(b)(ii) below; and

b. Publish the notice and the draft permit by posting on the District's website for, at a minimum, the duration of the comment period; and

c. Send a copy of the notice to the applicant; CARB; USEPA; Affected State(s); and all persons who have requested such notice and/or on a list of persons requesting notice of actions pursuant to this regulation generally on file with the District.

(iii) **Permit Issuance Notice:** If the provisions of subsection (C)(7)(e) apply then the APCO shall issue the permit pursuant to the provisions of District Regulation II and post the final permit on the District's website.

(b) Notice Content Requirements.

(i) **Major NSR Notice Contents:** The notice required pursuant to subsection (D)(3)(a)(i) shall include:

a. The name and location of the Facility, including the name and address of the applicant if different.

b. A statement indicating the availability, conclusions of the preliminary decision and a location where the public may obtain or inspect the preliminary decision and supporting documentation; and

c. A statement providing at least 30 days from the date of publication of the notice for the public to submit written comments on the preliminary decision; and

d. A brief description of the specific comment procedures and deadlines; and

e. Information regarding obtaining review of the permit issuance decision by the District Hearing Board pursuant to the provisions of California Health & Safety Code §42302.1.

f. If the APCO has determined that the Stack Height exceeds Good Engineering Practice then the notice shall also contain notice of the opportunity to request a public hearing on the proposed demonstration produced pursuant to subsection (C)(4)(a)(i).

g. If the provisions of District Rule 1700(C) apply then the notice shall also contain: the degree of increment consumption; and notice of the opportunity to request a public hearing regarding the air quality impact, control technology or other appropriate considerations of the preliminary determination for the Major PSD Facility or Major PSD Modification.

h. If the provisions of District Regulation XXX apply, and the action involves the issuance, renewal or Significant Modification of the Federal Operating Permit, and the Federal Operating Permit is being issued concurrently then the notice shall also contain notice of the opportunity to request a public hearing on the proposed Federal Operating Permit pursuant to District Rule 3007(A)(1)(d).

i. If the APCO has rejected comments regarding anticipated visibility impacts on a Federal Class I Area, the notice shall also contain a notation of the availability of the reasons for such rejection.

(ii) **Minor NSR Notice Contents:** The notification required pursuant to subsection (D)(3)(a)(ii) shall include:

a. Identification of the Facility; including the name, address and Facility number; and

b. Identification of the permit(s) involved including permit number, and aa brief description of the action taken; and

c. Where a copy of the application and preliminary decision may be obtained; and

d. Provide at least 30 days from the date of publication of the notice for the public to submit written comments on the preliminary decision; and

e. A brief description of the specific comment procedures and deadlines; and

f. Information regarding obtaining review of the permit issuance decision by the District Hearing Board pursuant to the provisions of California Health & Safety Code §42302.1.

(c) Availability of Documents.

(i) At the time of publication of any notice required above the APCO shall make available for public inspection at the offices of the District or in another prominent place: the application and any other information submitted by the applicant; The NSR document, the preliminary decision to grant or deny the ATC, including any proposed permit conditions and the reasons therefore; and the supporting analysis for the preliminary decision.

(ii) Notwithstanding the above, the APCO is not required to release confidential information. Information shall be considered confidential when:

a. The information is a trade secret or otherwise confidential pursuant to California Government Code 6254.7(d) or

b. The information is entitled to confidentiality pursuant to 18 U.S.C. §1905; and

c. Such information is clearly marked or otherwise identified by the applicant as confidential.

(d) The APCO shall accept and consider all relevant comment(s) submitted to the District in writing during the 30 day public comment period provided pursuant to subsection (D)(3)(b)(i) or (ii).

(e) The APCO shall, if requested pursuant to the provisions provided for in the published notice, hold a public hearing regarding the proposed preliminary determination as provided pursuant to subsection (D)(3)(b)(i)f.-h.

(i) Such hearing shall be scheduled no less than 30 days after the publication of a notice of public hearing is published pursuant to the provisions set forth in subsection (D)(3)(a).

(f) The APCO shall keep a record of any oral and written comments received during the public comment period or at any public hearing and shall retain copies of such comments and the District's written responses to such comments in the District files for the particular Facility.

(g) If any substantive changes are made to the preliminary decision as a result of comments received from the public, CARB, USEPA or any Affected State(s), the APCO shall send a copy of the proposed changes to CARB and USEPA for review.

(h) Nothing in this subsection shall be interpreted to limit the availability of documents pursuant to the California Public Records Act (California Government Code §§6250 et seq.) as effective upon the date of the request for such documents.

(4) Final Action.

(a) After the conclusion of the comment period and consideration of the comments, the APCO shall produce a final NSR Document

(b) Thereafter, the APCO shall take final action to issue, issue with conditions or decline to issue the ATCs or PTOs pursuant to subsection (D)(6) based on the NSR document.

(i) Such final action shall take place no later than 180 days after the application has been determined to be complete.

(ii) The APCO shall not take final action to issue the NSR Document if either of the following occurs:

a. USEPA objects to such issuance in writing; or

b. USEPA has determined, as evidenced by a notice published in the Federal Register, that the applicable implementation plan is not being adequately implemented in the Federal Nonattainment Area in which the new or Modified Facility is located.

(c) The APCO shall provide written notice of the final action to the applicant, USEPA and CARB.

(d) If substantive changes have been made to the preliminary determination or other documents after the opening of the public comment period which are substantial enough to require: changes to the underlying requirements or which result in a less stringent BACT determination, then, the APCO shall cause to be published a notice substantially similar in content to the notice required by subsection (D).

(e) The final NSR Document may be combined with a final PSD document produced pursuant to District Rule 1700(D).

(f) The final NSR Document and all supporting documentation shall remain available for public inspection at the offices of the District for a minimum period of 5 years.

(5) Issuance of ATC(s).

(a) In conjunction with final action on the NSR Document the APCO shall issue ATC(s) for the new or Modified Facility pursuant to the provisions of District Regulation II. Such ATC(s) shall contain, at a minimum, the following conditions:

(i) All conditions regarding construction, operation and other matters as set forth in the NSR Document; and
(ii) If a new or Modified Facility is a replacement, in whole or in part, for an existing Facility or Emissions Unit on the same or contiguous property, a condition allowing 180 days or another reasonable start up period as agreed to by the District, USEPA and CARB, for simultaneous operation of the new or Modified Facility and the existing Facility or Emissions Unit; and
(iii) A condition requiring the Facility to be operated in accordance with the conditions contained on the ATC(s);
(iv) A condition requiring that the offsets must be obtained prior to the commencement of construction on the new or Modified Facility, Enforceable, and in effect by the time the new or modified Facility commences operation.

(b) The APCO shall not issue ATC(s) to a new or Modified Facility pursuant to this regulation unless:

(i) The new Facility or Modification to an existing Facility is constructed using BACT for each Nonattainment Air Pollutant when the provisions of Rule 1303(A) apply.
(ii) Any increase in emissions for each Nonattainment Air Pollutant have been properly offset pursuant to the provisions of District Rules 1305 and/or 1309.
a. Such offsets shall be Real, Enforceable Quantifiable, Surplus and Permanent; and
b. The permit(s) of any Facility or Emissions Unit(s) which provided offsetting emissions reductions have been

properly modified and/or other actions have been performed pursuant to the provisions of District Rules 1305 and 1309.

(iii) The new or Modified Facility complies with all applicable Rules and Regulations of the District.

(iv) The new or Modified Facility will not interfere with the attainment or maintenance of any National Ambient Air Quality Standard.

(6) Issuance of PTO(s).

(a) After the final action on the NSR Document pursuant to this Regulation and/or the issuance of ATC(s) pursuant to the provisions of District Regulation II, the APCO shall deny the subsequent issuance of PTO(s) unless the APCO determines that:

(i) If no ATC was issued, the owner or operator of the new or Modified Facility has complied with all applicable provisions of this Regulation including the provision of offsets if such were required.

(ii) The new or Modified Facility has been Constructed and operated in a manner consistent with the conditions as set forth in the NSR Document and the ATC(s); and

(iii) That the permit(s) of any Facility or Emissions Unit(s) which provided Offsets to the new or Modified Facility have been properly modified and/or valid contracts have been obtained pursuant to the provisions of District Rules 1304, 1305 or 1309.

(vi) That the Offsets, if required pursuant to District Rule 1303(B), were Real, Enforceable, Quantifiable, Surplus and Permanent, prior to the commencement of construction of the Facility.

(v) That all conditions contained in the ATC(s) requiring performance of particular acts or events by a date specified have occurred on or before such dates.

(vi) If the actual emissions are greater than those calculated when the ATC was issued:

a. That the owner/operator has provided additional offsets to cover the difference between the amount of offsets originally provided and the amount of offsets necessary calculated pursuant to District Rule 1305 as based upon the actual emissions of the facility; and

b. That such additional offsets were provided within ninety (90) days of the owner/operator being notified by the APCO that such additional offsets are necessary.

[See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans]

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(**Adopted**: 10/05/79; **Amended**: 03/07/80; **Amended**: 09/10/82; **Amended**: 07/12/85; **Amended**: 08/01/86; **Amended**: 06/28/90; **Amended**: 05/03/91; **Amended**: 12/07/95; **Amended**: 05/10/96; **Amended:** 03/20/01; **Amended:** 07/20/21)

Rule 1303
New Source Review Requirements

(A) Best Available Control Technology.

(1) Any new Permit Unit which emits, or has the Potential to Emit, 25 pounds per day or more of any Nonattainment Air Pollutant shall be equipped with BACT

(2) Any Modified Permit Unit which emits, or has the Potential to Emit, 25 pounds per day or more of any Nonattainment Air Pollutant shall be equipped with BACT.

(3) Any new or Modified Permit Unit at a Facility which emits, will emit, or has the Potential to Emit any Nonattainment Air Pollutant in an amount greater than or equal to the amount listed in subsection (B)(1) below shall be equipped with BACT.

(4) For purposes of determining applicability of this Section, Potential to Emit is calculated pursuant to the provisions of District Rule 1304(E)(3), any emissions change is calculated pursuant to the provisions of District Rule 1304(B)(1), and SERs shall not be used in such calculations.

(B) Offsets Required.

(1) Any new or Modified Facility which emits or has the Potential to Emit a Regulated Air Pollutant in an amount greater than or equal to the following offset threshold amounts of Nonattainment Air Pollutants and their Precursors, as calculated pursuant to District Rule 1304(B) less any SERs as calculated and approved pursuant to District Rule 1304(C), shall obtain Offsets.

OFFSET THRESHOLD AMOUNTS

POLLUTANT	OFFSET THRESHOLD
PM_{10}	15 tpy
Oxides of Nitrogen (NO_x)	25 tpy
Oxides of Sulfur (SO_x)	25 tpy
Volatile Organic Compounds (VOC)	25 tpy

(2) Any Facility which is not a Major Facility but where the Modification is in itself a Major Modification shall obtain Offsets.

(3) Any Facility or modification which emits or has the Potential to Emit a Nonattainment Air Pollutant in an amount greater than the threshold amounts listed in subsection (B)(1) due to a relaxation in any enforcement limitation established after August 7, 1980 on the capacity of the Facility or modification to emit a pollutant (such as a restriction on hours of operation) shall obtain Offsets and be equipped with BACT pursuant to subsection (A)(3) above as if the Facility had not yet Commenced Construction.

(4) Any Facility which has accumulated emissions increases in excess of the offset threshold set forth in subsection (B)(1) above shall offset the total emission increase during such period to zero.

(5) The amount, and eligibility of such offsets shall be determined on a pollutant by pollutant basis pursuant to the provisions of District Rules 1304, 1305, and 1309.

[SIP: See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans]

(**Adopted:** 10/05/79; **Amended:** 03/07/80; **Amended:** 09/10/82; **Amended:** 07/12/85; **Amended:** 01/10/86; **Amended:** 08/01/86; **Amended:** 06/28/90; **Amended:** 05/03/91; **Amended:** 06/05/92; **Amended:** 09/11/92; **Amended:** 12/07/95; **Amended:** 06/14/96; **Amended:** 03/20/01; **Amended:** 07/20/21)

RULE 1304
New Source Review Emissions Calculations

(A) General

(1) Purpose

(a) This rule provides the procedures and formulas to calculate increases and decreases in emissions of Regulated Air Pollutants for new or Modified Facilities. The results of such calculations shall be used to:

(i) Determine the applicability of the provisions of District Rule 1303.
(ii) Calculate SERs generated within the same Facility.
(iii) Determine the Potential to Emit (PTE) for new or Modified Facilities and Emissions Unit(s).
(iv) Calculate certain terms used in District Rule 1305.
(v) Calculate emissions decreases used to determine ERCs pursuant to the provisions of District Rule 1309.

(B) Calculating Emissions Changes in a Facility

(1) General Emissions Change Calculations

(a) The emissions change for new or Modified Emissions Unit(s) shall be calculated, in pounds per day, by subtracting Historic Actual Emissions (HAE) from Proposed Emissions (PE).

$$\text{Emissions Change} = (PE) - (HAE)$$

(b) The emissions change for a project at new or Modified Facility is the sum of all the positive emissions changes for each Emissions Unit(s) which occur at the Facility at the same time or in connection with the same permitting action.

(2) Net Emissions Increase Calculations

(a) The Net Emissions Increase for a new or modified Emissions Unit(s) shall be calculated, in pounds per day, by subtracting Historic Actual Emissions (HAE) from Proposed Emissions (PE).

Net Emissions Increase = (PE) – (HAE)

(b) The Net Emissions Increase for a new Facility is the sum of all the Potential Emissions from each Emissions Unit(s) at the Facility.

(c) The Net Emissions Increase for a project at a modified Facility is the sum of all the Net Emissions Increases for each Emissions Unit(s) minus any SERs as calculated and verified pursuant to Section (C) below which occur at the Facility at the same time or in connection with the same permitting action.

(C) Calculating Simultaneous Emissions Reductions.

(1) SERs as defined in District Rule 1301(UUU) may result from the Modification or shut down of Existing Emission Unit(s) so long as the resulting reductions are Federally Enforceable, Real, Surplus, Permanent, Quantifiable and Enforceable, and are reductions in of the Emissions Unit(s).

(2) SERs resulting from the Modification or shutdown of existing Emission Unit(s) within the same Facility shall be calculated as follows:

(a) For the shutdown of Emissions Unit(s);

SER = HAE

(b) For Modifications or limitations on operations of Emission Unit(s);

SER = (HAE) - (PE)

(c) For shutdown, Modifications or limitations on mobile, area or indirect sources of emissions;

(i) Any calculation formula and protocol as approved by the District, CARB and USEPA; and
(ii) The SERs also comply with the applicable provisions of District Rule 1305(C)(3).

(d) In the case of a Modified Major Facility, the HAE for a specific Emission Unit(s) may be equal to the Potential to Emit for that Emission Unit(s), the particular Emissions Unit have been previously offset in a documented prior permitting action so long as:

(i) The PTE for the specific Emissions Unit is specified in a Federally Enforceable Emissions Limitation; and
(ii) The resulting Emissions Change from a calculation using this provision is a decrease or not an increase in emissions from the Emissions Unit(s) and
(iii) Any excess SERs generated from a calculation using this provision are not eligible for banking pursuant to the provision of District Regulation XIV.

(3) SERs calculated pursuant to subsection (C)(2) above shall thereafter be adjusted to reflect emissions reductions which are otherwise required by Federal, State or District law, rule, order, permit or regulation as follows:

(a) SERs shall be adjusted to reflect only the excess reductions beyond those already achieved by, or achievable by, the Emissions Unit(s) using RACT.

(b) SERs shall be adjusted to reflect only the excess reductions beyond those required by applicable Federal, State or District law, rule, order, permit or regulation.

(c) SERs shall be adjusted to reflect only the excess reductions beyond those required by any applicable proposed District Rules and Regulations which have been taken to public workshop.

(d) SERs shall be adjusted to reflect the excess reductions beyond those required by any control measures identified in the District's Air Quality Attainment Plan or contained in the State Implementation Plan of the District and which have not yet been implemented in the form of District Rules and/or Regulations.

(4) SERs calculated pursuant to subsection (C)(2) above shall be considered Enforceable when the owner and/or operator of the Emissions Units involved has obtained appropriate permits and/or submitted other Enforceable documents as follows:

(a) If the SERs are the result of a Modification or limitation on the use of existing equipment and the owner and/or operator has been issued revised ATCs or PTOs containing Federally Enforceable conditions reflecting the Modification and/or limitations.

(b) If the SERs are the result of a shutdown of a Permit Unit(s) the owner and/or operator has surrendered the relevant permits and those permits have been voided.

(i) The specific Permit Units for which the permits were surrendered shall not be repermitted within the District unless the emissions thereof are completely Offset pursuant to the provisions of this regulation.

(c) If the SERs are the result of a Modification of Emissions Units(s) which did not have a District permit, the owner and/or operator has obtained a valid District permit or provided a contract, enforceable by the District which contains enforceable limitations on the Emissions Unit(s).

(d) If the SERs are the result of the application of a more efficient control technology to Emissions Unit(s) the owner and/or operator has or obtains a valid District PTO for both the underlying Emissions Unit and the new control technology.

(5) SERs as calculated above may only be used for purposes of calculating Net Emissions Increases pursuant to subsection (B)(2) or as Offsets pursuant to District Rule 1305(C)(2).

(6) Prior to use, SERs must be approved by the APCO.

(D) Calculation of Emission Reduction Credits (ERCs)

(1) ERCs as defined in District Rule 1301(X) may result from the Modification or shutdown of Existing Emissions Unit(s) so long as the resulting reductions are Federally Enforceable, Real, Surplus, Permanent, Quantifiable and Enforceable and are reductions in emissions of the Emissions Unit(s).

(2) ERCs resulting from the Modification or shutdown of existing Emissions Unit(s) shall be initially calculated as follows:

(a) For the shutdown of an emissions unit;

$$ERC = HAE$$

(b) For Modifications or limitations on operations of an Emission unit(s);

$$ERC = (HAE) - (PE)$$

(c) For Modifications or limitations on mobile, area or indirect sources of emissions;

(i) For Nonattainment Air Pollutants, a SIP approved calculation method that represents actual emissions reductions from a USEPA approved emissions inventory

(ii) For other Regulated Air Pollutants, any calculation formula and protocol as approved by the District, CARB and USEPA.

(3) Prior to Banking and issuance of the certificate, ERCs shall be adjusted to reflect emissions reductions which are not otherwise required by Federal, State or District law, rule, order, permit or regulation, as follows:

(a) ERCs shall be adjusted to reflect only the excess reductions beyond those already achieved by, or achievable by, the emissions unit using RACT.

(b) ERCs shall be adjusted to reflect only the excess reductions beyond those required by applicable District Rules and Regulations.

(c) ERCs shall be adjusted to reflect only the excess reductions beyond those required by any applicable proposed District Rules and Regulations which have been taken to public workshop.

(d) ERCs shall be adjusted to reflect the excess reductions beyond those required by any control measures identified in the District's AQAP or contained in the SIP for the District which have not yet been implemented in the form of District Rules and/or Regulations.

(4) Readjustment of ERCs

(a) ERCs shall be eligible for readjustment when:

(i) The original amount of ERCs as calculated were adjusted based upon a proposed Rule or Regulation, which was not identified in the District's AQAP or SIP and the District has subsequently determined that the Rule or Regulation will not be adopted by the District; or

(ii) The original amount of ERCs as calculated were adjusted based upon a control measure which was identified in the District's AQAP or SIP and the control measure has subsequently been removed from either or both documents and no District Rule or Regulation has been adopted for the control measure.

(b) If an ERC is eligible for readjustment the APCO shall calculate the readjustment as if the ERC was being initially issued and thereafter reissue the ERC pursuant to the provisions found in District Rule 1309(E).

(5) Discount of ERCs Generated from Military Bases

(a) ERCs which are calculated from emission reductions created by a military base designated for closure or downward realignment shall be discounted five percent (5%) to improve air quality.

(E) Calculation of Terms Used in Rule 1304

(1) Proposed Emissions

(a) For a new or Modified Facility or Emissions Unit(s), the Proposed Emissions shall be equal to the Potential to Emit defined by District Rule 1301(GGG) after modification or construction for that Facility or Emissions Unit(s) and as calculated pursuant to subsection (E)(3) below.

(2) Historic Actual Emissions (HAE)

(a) HAE equal the Actual Emissions of Emissions Unit(s) including Fugitive Emissions directly related to those Emissions Unit(s) if the Facility belongs to one of the Facility categories as listed in 40 CFR 51.165(a)(1)(iv)(C), calculated in pounds per year, as follows:

(i) The verified Actual Emissions of an Emissions Unit(s), averaged from the 2 year period which immediately proceeds the date of application and which is representative of Facility operations; or

(ii) The verified Actual Emissions of an Emissions Unit(s), averaged for any 2 years of the 5 year period which immediately precedes the date of application which the APCO has determined is more representative of Facility operations than subsection (E)(2)(a)(i) above.

(iii) If the Emissions Unit(s) have been in operation for less than one year, the HAE shall be equal to zero.

(3) Potential to Emit

(a) The Potential to Emit for a Facility, for the purpose of this Rule, shall be calculated as follows:

(i) The sum of the Potentials to Emit for all existing Emission Unit(s) as defined pursuant to District Rule 1301(GGG); and

(ii) Any emissions increases from proposed new or Modified Emissions Unit(s) as calculated pursuant to subsection (B) above; and

(iii) Any Fugitive Emissions if the Facility belongs to one of the facility categories as listed in 40 CFR 51.165(a)(1)(iv)c.

[SIP: See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans]

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(**Adopted:** 10/05/96; **Amended:** 09/10/82; **Amended:** 04/06/84; **Amended:** 07/12/85; **Amended:** 08/01/86; **Rescinded:** 06/28/90; **Adopted:** 03/20/01; **Amended:**08/15/06; **Amended:** 07/20/21)

RULE 1305
New Source Review Emissions Offsets

(A) General

(1) Purpose

(a) This Rule provides the procedures to calculate the amount of, determine the eligibility of, and determine the use of Offsets required pursuant to the provisions of District Rule 1303(B).

(B) Calculation of Amount of Offsets Necessary

(1) The base amount of necessary Offsets shall be calculated based upon the nature of the Facility or Modification.

(2) The APCO shall first determine the particular Facility or Modification and calculate the base quantity of Offsets required as follows

(a) For a new Major Facility, the base quantity of Offsets shall be equal to the total Proposed Emissions, calculated pursuant to District Rule 1304(E)(1), for the Facility on a pollutant category specific basis for each Nonattainment Air Pollutant.

(b) For a Major Modification to a previously existing non-major Facility **located in a Federal Nonattainment Area** for the specific Nonattainment Air Pollutant the base quantity of Offsets shall be equal to the total Proposed Emissions, pursuant to District Rule 1304(E)(1), for the Facility on a pollutant category specific basis.

(c) For a Major Modification to a previously existing non-major Facility **located outside a Federal Nonattainment Area** for the specific Nonattainment Air Pollutant the base quantity of Offsets shall be equal to the amount of the Facility's Proposed Emissions which exceeds the threshold amounts as set forth in District Rule 1303(B) on a pollutant category specific basis for each Nonattainment Air Pollutant.

(d) For a Modification to a previously existing non-major Facility which subsequently results in the Facility becoming a Major Facility **located in a Federal Nonattainment Area** for the specific Nonattainment Pollutant, the base quantity of Offsets shall be equal to the Facility's Proposed Emissions, pursuant to District Rule 1304(E)(1), for the Facility on a pollutant category specific basis for each Nonattainment Air Pollutant.

(e) For a Modification to a previously existing non-major Facility which subsequently results in the Facility becoming a Major Facility **located outside a Federal Nonattainment Area** for the specific Nonattainment

Air Pollutant, the base quantity of Offsets shall be equal to the Facility's Proposed Emissions which exceeds the threshold amounts as set forth in District Rule 1303(B)on a pollutant category specific basis for each Nonattainment Air Pollutant.

(f) For a non-major Facility which becomes a Major Facility due to the relaxation of a Federal requirement or a Federally Enforceable requirement **located in a Federal Nonattainment Area** for the specific Nonattainment Pollutant, the base quantity of Offsets shall be equal to the total Proposed Emissions, pursuant to District Rule 1304(E)(1), for the Facility on a pollutant category specific basis for each Nonattainment Air Pollutant.

(g) For a non-major Facility which becomes a Major Facility due to the relaxation of a Federal requirement or a Federally Enforceable requirement **located outside a Federal Nonattainment Area** for the specific Nonattainment Air Pollutant, the base quantity of Offsets shall be equal to the Facility's Proposed Emissions which exceeds the threshold amounts as set forth in District Rule 1303(B) for the Facility on a pollutant category specific basis for each Nonattainment Air Pollutant.

(h) For a Modification to an existing Major Facility the base quantity of Offsets shall be the amount equal to the difference between the Facility's Proposed Emissions and the HAE.

(i) Additional Requirements for Seasonal Sources

(i) The base quantity of Offsets for new or Modified Seasonal Sources shall be determined on a quarterly basis.
(ii) Seasonal emissions used for Offsets shall generally occur during the same consecutive monthly period as the new or Modified Seasonal Source operates.

(j) Offset Adjustment for Various Energy Conservation Projects

(i) If the facility qualifies as a cogeneration technology project, or is otherwise qualified as an energy conservation project pursuant to California Health and Safety Code §§39019.5, 39019.6, 39047.5 and 39050.5 the amount of offsets shall be adjusted to the extent required by the applicable provisions of Health and Safety Code, including but not limited to California Health and Safety Code §§42314, 42314.1, 42314.5, 41601, and 41605.5.
(ii) In no case shall such offset adjustment result in an amount of offsets less than those required pursuant to Federal law.

(3) After determining the base quantity of Offsets, the APCO shall apply the appropriate Offset ratio and any Adjustments as set forth in section (D) below, dependent upon the location of the Offsets and the location of the proposed new or Modified Facility or Emissions Unit(s).

(4) If eligible interpollutant Offsets are being used the APCO shall apply the appropriate ratio to determine the final amount of Offsets necessary.

(C) Eligibility of Offsets

(1) ERCs are eligible to be used as Offsets when:

(a) Such ERCs are Real, Surplus, Permanent, Quantifiable, and Enforceable; and have been calculated pursuant to District Rule 1304(E) and issued by the District pursuant to the provisions in District Rule 1309; and are obtained from a Facility (or combination of Facilities) which are:

(i) Located within the same Federal Nonattainment, attainment or unclassified area as that where the Offsets are to be used; or

(ii) Located in an area with a Federal designation (in the case of attainment or unclassified areas) or classification (in the case of nonattainment areas) which is greater than or equal to the designation or classification of the area where the Offsets are to be used so long as the emissions from that area cause or contribute to a violation of the Ambient Air Quality Standards in the area in which the Offsets are to be used.

(b) Such ERCs have been calculated and issued in another air district under a program developed pursuant to California Health & Safety Code §§40700-40713 so long as the source of such credits is contained within the same air basin as the District and the use of the ERCs comply with the provisions of subsection (C)(4) below.

(c) Such ERCs have been calculated and issued in another air district under a program developed pursuant to California Health & Safety Code §§40709-40713 and the transfer of such credits complies with the requirements of California Health & Safety Code §40709.6 and the use of the ERCs comply with the provisions of section (C)(5) below.

(2) SERs are eligible for use as Offsets when:

(a) They have been calculated, adjusted and meet all the requirements of District Rule 1304(C).

(b) In no case shall any excess SERs be eligible for Banking pursuant to the provisions of District Rule 1309.

(3) Mobile, Area and Indirect Source Emissions Reductions

(a) Mobile Source ERCs are eligible to be used as Offsets when:

(i) Such Mobile, Area, or Indirect Source ERCs have been calculated and banked pursuant to the provisions of District Regulation XVII and District Rule 1309; and

(ii) The applicant demonstrates sufficient control over the Mobile Area or Indirect Sources to ensure the claimed reductions are Real, Surplus, Permanent, Quantifiable and Enforceable; and

(iii) For Mobile Sources, such Mobile Source ERCs are consistent with Mobile Source emissions reduction guidelines issued by CARB; and

(iv) The specific Mobile, Area, or Indirect Source ERCs are approved for use prior to the issuance of the NSR document and the issuance of any ATCs by the APCO in concurrence with CARB; and

(v) For a new or Modified Major Facility or a Major Modification which is located in a Federal Nonattainment Area the specific Mobile, Area, or Indirect Source ERCs are calculated and adjusted pursuant to a SIP approved calculation method and represent Actual Emissions Reductions from a USEPA approved emissions inventory; and

(vi) Such Mobile, Area, or Indirect Source ERCs comply with the applicable provisions of section (C)(1) above.

(4) ERCs Obtained from Other Air Districts and Within the Air Basin

(a) ERCs occurring within the air basin but outside the District are eligible to be used as Offsets upon approval of the APCO as follows:

(i) For a new or Modified Major Facility or a Major Modification which is located in a Federal Nonattainment Area the APCO's approval shall be made in consultation with CARB and the USEPA, on a case-by-case basis; and

(ii) For all other Facilities or Modifications subject to this provision the APCO's approval shall be made in consultation with CARB on a case-by-case basis; and

(iii) The ERCs are obtained in a nonattainment area which has a greater or equal nonattainment classification than the area where the Offsets are to be used; and

(ii) The emissions from the other nonattainment area contribute to a violation of the Ambient Air Quality Standards in the area where the Offsets are to be used.

(b) Such emissions reductions shall also comply with the applicable requirements of subsection (C)(1) above.

(5) Offsets from Other Air Districts and Outside the Air Basin

(a) ERCs from outside the air basin are eligible to be used as Offsets upon approval of the APCO as follows.

(i) For a new or Modified Major Facility or a Major Modification, which is located in a Federal Nonattainment Area the APCO's approval shall be made in consultation with CARB and the USEPA, on a case-by-case basis; and

(ii) For all other Facilities or Modifications subject to this provision the APCO's approval shall be made in consultation with CARB on a case-by-case basis; and

(iii) The ERCs are obtained in a nonattainment area which has a greater or equal nonattainment classification than the area where the Offsets are to be used; and

(vi) The emissions from the other nonattainment area contribute to a violation of the Ambient Air Quality Standards in the area where the Offsets are to be used.

(b) Such emissions reductions shall comply with the applicable requirements of subsection (C)(1) above.

(6) Interpollutant Offsets[1]

(a) Emissions reductions of one type of Air Pollutant may be used as Offsets for another type of Air Pollutant upon approval of the APCO.

(i) For a new or Modified Major Facility or a Major Modification which is located in a Federal Nonattainment Area the APCO's approval shall be made in consultation with CARB and with the approval of USEPA pursuant to the provisions of District Rule 1302(D)(2), on a case-by-case basis as long as the provisions of subsection(C)(6)(b) below are met.

(ii) For all other Facilities or Modifications subject to this provision the APCO's approval shall be made in consultation with CARB on a case-by-case basis.

(b) In approving the use of interpollutant offsets the APCO shall determine that:

(i) The trade is technically justified; and

(ii) The applicant has demonstrated, to the satisfaction of the APCO, that the combined effect of the Offsets and emissions increases from the new or Modified Facility will not cause or contribute to a violation of an Ambient Air Quality Standard.

(c) The APCO shall, based upon an air quality analysis, determine the amount of Offsets necessary, as appropriate.

(d) Interpollutant trades between PM_{10} and PM_{10} precursors may be allowed on a case by case basis. PM_{10} emissions shall not be allowed to Offset Nitrogen Oxides or Volatile Organic Compounds emissions within any ozone nonattainment area.

(e) Such ERCs comply with the applicable provisions of subsection (C)(1) above.

[1] Use of this subsection subject to the Ruling in Sierra Club v. USEAP 985 F.3d 1055 (D.C. Cir, 2021) and subsequent guidance as issued by USEPA.

(D) Offset Ratio and Adjustment

(1) Offsets for Net Emissions Increases of Nonattainment Air Pollutants shall be provided on a pollutant category specific basis, calculated as provided in section (B) above and multiplied by the appropriate Offset ratio listed in the following table:

TABLE OF OFFSET RATIOS

POLLUTANT	OFFSET RATIO (Within a Federal Ozone Nonattainment Area)	OFFSET RATIO (Within a Federal PM_{10} Nonattainment Area)
PM_{10}	1.0 to 1.0	1.0 to 1.0
Oxides of Nitrogen (NO_x)	1.3 to 1.0	1.0 to 1.0
Oxides of Sulfur (SO_x)	1.0 to 1.0	1.0 to 1.0
Volatile Organic Compounds (VOC)	1.3 to 1.0	1.0 to 1.0

(2) If a Facility is located within more than one Federal nonattainment area, the largest applicable Offset ratio for each Nonattainment Air Pollutant shall apply.

(3) The ratio for Offsets obtained from outside the District for any Nonattainment Air Pollutant shall be equal to the offset ratio which would have applied had such Offsets been obtained within the District.

(4) The APCO shall Adjust any Offsets proposed to be used to reflect any emissions reductions in excess of RACT in effect at the time such Offsets are used if such reductions have not already been reflected in the calculations required pursuant to District Rules 1304(C)(2).

[SIP: See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans _____]

(**Adopted:** 10/05/79; **Amended:** 03/07/80; **Amended:** 09/10/82; **Amended:** 12/03/82; **Amended:** 07/12/85; **Amended:** 08/01/86; **Amended:** 09/05/86; **Amended**: 07/28/90; **Amended:** 05/03/91; **Amended:** 12/07/95; **Amended:** 07/14/96; **Amended:** 03/20/01; **Amended:** 07/20/21)

RULE 1306
New Source Review for
Electric Energy Generating Facilities

(A) General

(1) This Rule shall apply to all EEGF proposed to be constructed in the District and for which an NOI or AFC has been accepted by the CEC, as such terms are defined in District Rule 1301(V), (YY), (G) and (M) respectively.

(2) If any provision of this Rule conflicts with any other provision of this Regulation, the provisions contained in this Rule shall control.

(B) Intent to Participate

(1) Notification of Intent to Participate (NOI)

(a) Within 14 days of receipt of an NOI, the APCO shall notify CARB and the CEC of the District's intent to participate in the NOI proceeding.

(2) Preliminary Report

(a) If the District chooses to participate in the NOI proceeding, the APCO shall prepare and submit a preliminary report to CARB and the CEC prior to the conclusion of the nonadjudicatory hearings specified in California Public Resources Code §25509.5 as it exists on the date of the last amendment of this rule.

(b) The Preliminary Report shall include, at a minimum:

(i) A preliminary specific definition or description of BACT for the proposed Facility; and
(ii) A preliminary discussion of whether there is a substantial likelihood that the requirements of this Regulation and all other District Rules can be satisfied by the proposed Facility; and

(iii) A preliminary list of conditions which the proposed Facility must meet in order to comply with this Regulation and any other applicable District Rules.

(c) The preliminary determination shall be as specific as practicable within the constraints of the information contained in the NOI

(C) Applications

(1) Application for New Source Review

(a) The APCO shall consider the AFC to be equivalent to an application pursuant to District Rule 1302(B) during the Determination of Compliance review, and shall apply all applicable provisions of District Rule 1302 to the application.

(b) If the information contained in the AFC does not meet the requirements which would otherwise comprise a complete application pursuant to District Rule 1302(B)(1), the APCO shall, within 20 calendar days of receipt of the AFC, specify the information needed to render the application complete and so inform the CEC.

(2) Requests for Additional Information

(a) The APCO may request from the applicant any information necessary for the completion of the Determination of Compliance review.

(b) If the APCO is unable to obtain the information, CARB or the APCO may petition the presiding committee of the CEC for an order directing the applicant to supply such information.

(D) Determination of Compliance Review

(1) Upon receipt of an AFC for an EEGF, the APCO shall conduct a Determination of Compliance review. This Determination shall consist of a review identical to that required pursuant to District Rule 1302(C).

(E) Permit Issuance Procedure

(1) Preliminary Decision

(a) Within 150 days of accepting an AFC as complete and after the determination of compliance review has been completed, the APCO shall make a preliminary determination of compliance containing the following:

(i) A determination whether the proposed EEGF meets the requirements of this Regulation and all other applicable District Rules; and
(ii) In the event of compliance with all applicable District Rules and Regulations, what permit conditions will be required, including the specific BACT requirements.

(2) Public Notice Requirements

(a) The preliminary determination of compliance decision shall be treated as a preliminary decision under Rule 1302(D)(1) and shall be finalized by the APCO only after being subject to the public notice and comment requirements of Rule 1302(D)(2-3).

(3) Determination of Compliance

(a) Within 210 days of accepting an AFC as complete and after the notice provisions have been completed, the APCO shall issue and submit to the CEC either of the following:

(i) A final determination of compliance; or,
(ii) If such a determination of compliance cannot be issued, an explanation regarding why such determination of compliance cannot be issued.

(b) A determination of compliance shall confer the same rights and privileges as the new source review document and ATC(s) if and when the CEC approves the AFC, and the CEC certificate includes all conditions contained in the determination of compliance.

[SIP: See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans]

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(**Adopted:** 09/10/82; **Amended:** 12/03/82; **Amended:** 07/12/85; **Amended**: 06/28/90; **Amended:** 05/03/91; **Amended:** 08/13/93; **Amended:** 12/07/95; **Amended**: 03/20/01; **Amended:** 07/20/21)

RULE 1309
Emission Reduction Credit Banking

(A) General

(1) Purpose

(a) The purpose of this Rule is to implement those provisions of Division 26, Part 3, Chapter 6 (commencing with §40700) of the California Health & Safety Code which require the establishment of a system by which all reductions in the emission of air contaminants (which are to be used to offset certain future increases in emissions) shall be banked prior to use to offset future increases in emissions.

(b) This Rule is not intended to recognize any preexisting right to emit air contaminants, but to provide a mechanism for the District to recognize the existence of reductions of air contaminants that can be used as Offsets, and to provide greater certainty that such Offsets shall be available for emitting industries.

(2) Applicability

(a) This Rule shall apply to the creation, and Banking of all Emission Reduction Credits (ERCs) within the District.

(b) Any Person, including the District, may Bank, own, use, sell or otherwise transfer, either in whole or in part, ERCs which are created and owned pursuant to this regulation subject to the applicable requirements of Federal, State, or District law, rule, order, permit or regulation.

(3) Prohibitions

(a) No reduction in the emission of Regulated Air Pollutants may be used as Offsets for future increases in the emission of Regulated Air Pollutants unless such reductions have been Banked pursuant to this Rule.

(i) Notwithstanding the above SERs created in the same permitting action and within the same Facility are not required to be Banked

so long as such reductions satisfy all the applicable criteria contained in District Rules 1304(C) and 1305.

(B) Emission Reduction Credit Registry

(1) Establishment of Emission Reduction Credit Registry:

(a) An Emission Reduction Credit Registry is hereby established for the District.

(i) This shall be known as the Antelope Valley Air Quality Management District Emission Reduction Credit Registry (AVAQMD ERC Registry).

(b) The AVAQMD ERC Registry shall consist of the following:

(i) ERCs created and issued after July 1, 1997 which have met all the following requirements:
a. A timely and complete application for ERCs has been received pursuant to subsection (C)(1) below; and
b. The amount of ERCs have been calculated pursuant to the provisions of District Rule 1304 and approved by the APCO pursuant to subsection (C)(3) below; and
c. The amount, ownership and expiration date if any of the ERCs has been entered into the Registry; and
d. A Certificate evidencing the amount, type and class of ERCs has been properly issued; and
e. The ERCs have not yet been used as Offsets or expired.

(ii) ERCs banked prior to July 1, 1997 under the applicable Rules of the SCAQMD and which meet the following requirements:
a. The ERCs have been properly transferred to the AVAQMD ERC Registry pursuant to subsection (E)(4) below; and
b. The ERCs have not yet been used as Offsets or expired.

(c) ERCs contained in the AVAQMD ERC Registry are Permanent until:

(i) They are used by the owner; or
(ii) They are used by any person to whom the ERC has been transferred; or
(iii) They expire.

(d) Subsequent changes in District Rules or Regulations to require a type of emission reduction which has previously been Banked pursuant to this Rule shall not reduce or eliminate an ERC generated from that type of emission reduction.

(e) Emission reductions are eligible to become ERCs if such reductions are Real, Surplus, Permanent, Quantifiable, and Enforceable; and are calculated pursuant to the provisions of District Rule 1304(D) and:

(i) The emissions reduction is the result of a Modification or limitation of use of existing Emissions Unit(s) such that after the reduction is made the Emissions Unit(s) remains in service with an authority to construct or permit to operate pursuant to Regulation II; or

(ii) The emission reduction is the result of a shutdown of Emission Unit(s) and there will likely be no replacement Emission Unit(s) at the same Facility unless the emissions from any replacement Emission Unit(s) is completely offset under the provisions of this Regulation.

(2) Contents of Registry:

(a) All ERCs contained in the AVAQMD ERC Registry shall be individually listed.

(b) The registry entry for each ERC shall contain the following information:

(i) The name, address, and telephone number of the owner(s) of the ERC;

(ii) The amount and pollutant of the approved ERC on a pollutant by pollutant basis;

(iii) The expiration date of the approved ERC, if any;

(iv) Any information regarding liens, encumbrances and other changes of record.

(c) The registry shall contain an entry for each ERC until such ERC is used, expires or is otherwise altered by operation of law.

(3) ERC Certificate:

(a) All ERCs issued pursuant to this regulation shall be evidenced by a Certificate issued by the District and signed by the APCO.

(b) The Certificate shall contain the same information as is contained in the registry entry for the issued ERC pursuant to subsection (B)(2)(b) above.

(c) The APCO shall prescribe the form of the Certificate.

(d) ERC Certificates shall not constitute instruments, securities or any other form of property.

(4) Ownership of ERCs:

(a) Initial title to approved ERCs shall be held by the owner(s) of the Emissions Unit(s) which produced the reduction in Regulated Air Pollutants, in the same manner as such owner(s) hold title to the facility in which the Emissions Unit(s) is located.

(b) Title for any approved ERC which has been transferred, in whole or in part, by written conveyance or operation of law from one person to another shall be held by the owner(s) in the manner indicated in the written conveyance or as indicated by the operation of law.

(c) The owner(s) of an ERC as listed in the registry and on the ERC Certificate shall have the exclusive right to use such ERCs and/or to authorize such use.

(C) Issuance of Emission Reduction Credits

(1) Applications for ERCs:

(a) ERCs shall be applied for, in writing, by the owner or operator of the Emissions Unit(s) from which the emission reduction has occurred or will occur, to the APCO.

(b) Applications for ERCs shall be clearly identified as such and shall contain the following:

(i) The name, address, and telephone number of the owner(s) of the Emissions Unit(s) and a contact person if necessary.
(ii) Information sufficient to identify the source and/or causation of the emission reductions.
(iii) Information sufficient to allow the calculations set forth in District Rule1304(D) to be performed.

(c) No application for ERCs will be processed until the applicable fees as specified in District Rule 301 have been paid.

(d) Applications for ERCs shall be submitted in a timely manner determined as follows:

(i) For emission reductions which occurred after July 1, 1997, an application for ERCs shall be submitted within 6 months after any of the following:
a. District issuance of an ATC; or
b. District issuance of a modified PTO; or
c. District cancellation of a previously existing ATC or PTO; or
d. for emissions units not subject to permitting requirements, the completion of the Modification or shutdown and execution of the document(s) required by subsection (D)(3)(c).

(ii) Notwithstanding subsection (C)(1)(d)(i) above, a timely application for a Military Base subject to closure or realignment shall be determined pursuant to the provisions of California Health & Safety Code §40709.7.

(e) Applications for ERCs may be withdrawn at any time by the applicant.

(i) An applicant who withdraws an application may be entitled to a partial refund of fees as set forth in District Rule 301.
(ii) A withdrawn application for ERCs does not preclude an applicant from later submitting an application for ERCs based upon the same emissions reductions as those contained in the withdrawn application as long as such resubmitted application is timely in accordance with subsection (C)(1)(d) above.

(f) Information contained in an application for ERCs shall be considered confidential when:

(i) The information is a trade secret or otherwise confidential pursuant to California Government Code §6254.7; or
(ii) The information is entitled to confidentiality pursuant to 18 U.S.C. §1905; and
(iii) The information is clearly marked or otherwise identified by the applicant as confidential.

(2) Determination of Completeness:

(a) The APCO shall determine if the application is complete no later than 30 days after the receipt of the application, or after such longer time as both the applicant and the APCO may agree upon in writing.

(i) An application is complete when it contains the information required by subsection (C)(1)(d) above.

(b) Upon making this determination, the APCO shall notify the applicant, in writing, that the application has been determined to be complete or incomplete.

(c) If the application is determined to be incomplete:

(i) The notification shall specify which part of the application is incomplete and how it can be made complete; and
(ii) The applicant for ERC shall have 30 days to submit the additional information, unless another time period is specified by the APCO in writing.
(iii) The applicant for an ERC may request in writing, and the APCO may grant for good cause shown, extension(s) of time for submission of the additional information. Such request and any extension(s) granted shall be in writing.
(iv) If the applicant does not submit the additional information in writing within the time period specified or extended in writing by the APCO the application shall be deemed withdrawn by the applicant.
(v) The APCO shall thereafter notify the applicant in writing that the application has been deemed withdrawn pursuant to this subsection.

(d) A determination of incompleteness which results in an application being deemed withdrawn may be appealed to the Hearing Board pursuant to section (G) below.

(3) Calculation of ERCs:

(a) Calculation of the ERCs shall be performed pursuant to the provisions of District Rule 1304(D).

(4) Proposed ERCs:

(a) Within 30 days after the application for ERCs has been determined to be complete, or after such longer time as both the applicant and the APCO may agree upon in writing, the APCO shall determine, in compliance with the standards set forth in section (D) below, to issue or deny the ERCs.

(b) The APCO shall notify the applicant in writing of the determination.

(i) If the determination is to issue ERCs then the notification shall include the amount and type of the ERCs proposed to be issued; or
(ii) If the determination is to deny the ERCs then the notice shall include an explanation of the reason for the denial.

(c) After the APCO has determined to issue ERCs, the information submitted by the applicant, the analysis, and determination shall transmit to CARB and the USEPA regional office within 10 days or no later than the date of publication of the notice of the preliminary determination if the amount of ERCs proposed to be granted are greater than any of the following amounts:

Pollutant	ERC Notification to CARB/USEPA Threshold
NO_x	14,600 lbs/yr **or** 40 lbs/day
SOx	21,900 lbs/yr **or** 60 lbs/day
ROC	10,950 lbs/yr **or** 30 lbs/day
PM_{10}	10,950 lbs/yr **or** 30 lbs/day
CO	80,300 lbs/yr **or** 220 lbs/day
H_2S	20,000 lbs/yr **or** 54 lbs/day
Pb	1,200 lbs/yr **or** 3 lbs/day

(5) Public Notice and Comment:

(a) After the APCO has determined to issue ERCs, the APCO shall:

(i) Produce a notice containing all the information contained in subsection (C)(5)(c) below; and
(ii) Publish the notice by posting on the District's website; and

(iii) Send a copy of the notice to all persons who are included on a list of persons requesting notice, on file with the District;
(iv) Provide notice by other reasonable means, if such notice is necessary to assure fair and adequate notice to the public.

(b) The notice shall provide the following:

(i) The name and address of the applicant and the facility generating the emissions reductions, if different;
(ii) The amount of ERCs proposed to be issued on a pollutant by pollutant basis;
(iii) A statement indicating the availability of documents and a location where the public may obtain or inspect the decision and supporting documentation including, but not limited to, the name, address and telephone number of a person from whom additional information may be obtained; and
(iv) A statement providing at least a 30 days from the date of publication of the notice in which interested persons may submit written comments to the District regarding the proposed issuance of the ERCs.
(v) A brief description of the comment procedures and deadlines; and
(vi) Information regarding obtaining review of the decision pursuant to section (G) below; and

(c) The APCO shall accept and consider all germane and nonfrivilous comments which are received during the comment period.

(d) The APCO shall include all accepted comments with the records regarding the issuance of the ERCs and shall retain such records for a period of at least 5 years.

(6) Issuance of ERCs:

(a) Upon the expiration of the public comment period; after review of comments accepted, if any; and upon payment of the appropriate fee, if any, the APCO shall issue the ERCs by including the appropriate information in the registry and issuing a Certificate.

(b) The APCO shall provide written notice of the final action to the applicant and to CARB and USEPA if the preliminary determination was sent to such agencies pursuant to subsection (C)(4)(c) above.

(D) Standards for Granting ERCs

(1) ERCs shall be Real, Surplus, Permanent, Quantifiable, and Enforceable.

(2) ERCs shall only be granted for emissions reductions which are not otherwise required by Federal, State or District law, rule, order, permit or requirement.

(3) ERCs shall only be granted if the applicable changes to the appropriate permits have occurred or other enforceable documents have been submitted as follows:

(a) If the proposed ERCs are the result of a Modification or limitation of use of existing Permit Unit(s), the owner and/or operator has been issued revised ATCs PTOs containing Federally Enforceable conditions reflecting the Modification and/or limitations has been issued.

(b) If the proposed ERCs are the result of a shutdown of Permit Unit(s), the owner and/or operator has surrendered the relevant permits and those permits have been voided.

(i) The specific Permit Unit(s) for which the permits were surrendered shall not be repermitted within the District, unless the emissions thereof are completely offset pursuant to the provisions of this Regulation.

(c) If the proposed ERCs are the result of a modification of Emission Unit(s) which did not have a District permit, the owner and/or operator has obtained a valid District permit or provided a contract enforceable by the District Federally Enforceable limitations on the Emissions Unit(s).

(d) If the proposed ERCs are the result of the application of a more efficient control technology to Emission Unit(s), the owner and/or operator has or obtains a valid District PTO for both the underlying Emissions Unit and the new control technology which contains Federally Enforceable limitations reflecting the reduced emissions.

(4) If the proposed ERC originates from a previously unpermitted Emission Unit(s), no ERCs may be granted unless the historical emissions from that unit are included in the District's emissions inventory.

(E) Transfer, Encumbrance, and Readjustment of ERCs

(1) ERCs may be transferred in whole or in part by written conveyance or by operation of law from one person to another in accordance with the provisions contained in this section.

(2) Voluntary Transfer of Ownership.

(a) A voluntary transfer of ownership in whole or in part shall be performed according to the following procedure:

(i) The owner(s) of the ERC may file a request for transfer of ownership with the APCO. Such request shall include:

a. Information regarding the new owner of the ERC sufficient for entry in the registry.

b. An executed copy of the instrument transferring the ERC or a memorandum describing the transaction which transfers the ERC which is signed by all parties to the transaction.

c. The purchase price, if any, of the ERCs in terms of total cost on a pollutant by pollutant purchased basis.

d. The existing ERC Certificate(s) for the ERCs to be transferred.

(ii) Upon payment of the appropriate fee as set forth in District Rule 301, the APCO shall cancel the existing ERC Certificate(s) and issue new certificate(s) in the name of the new owner and indicate the transfer in the Registry.

(3) Involuntary Transfer of Ownership

(a) An involuntary transfer of ERCs shall be performed pursuant to the following procedure:

(i) The transferee shall file with the District a certified copy of the document effecting the transfer. The transferee shall certify that the document represents a transfer which is final for all purposes.

(ii) Upon payment of the appropriate fee as set forth in District Rule 301, the APCO shall demand the original ERC Certificate from the original owner.

a. Upon the surrender of the existing ERC Certificate to the District or after 90 days (whichever comes first), the existing ERC Certificate shall be considered cancelled, and the APCO shall issue a new ERC Certificate and indicate the involuntary nature of the transfer in the registry.

(iii) The APCO shall thereafter not allow the use or subsequent transfer of the ERC by the original owner.

(4) Transfer of ERCs Banked Prior to July 1, 1997.

(a) ERCs which were created within the area which is now under the jurisdiction of the District and which were properly banked prior to July 1, 1997 pursuant to the applicable rules of the SCAQMD may be transferred to the AVAQMD ERC Registry according to the following procedure:

(i) The owner of the ERCs shall submit a request to include the ERCs in the AVAQMD ERC Registry by:

a. Requesting such inclusion in writing; and

b. Surrendering the ERC certificate or other evidence of the ERCs obtained from the SCAQMD.

(ii) Upon receipt of the request and documentation the APCO shall:

a. Notify the SCAQMD in writing of the request, the intent to include such ERCs in the AVAQMD ERC Registry, and request that the SCAQMD remove such ERCs from its bank.

b. The APCO shall, at the request of the SCAQMD, submit the original certificate and/or documentation which was surrendered to effectuate such removal.

c. Within 90 days of such notification, upon the submission of the original certificate and/or documentation or upon receipt of notification from the SCAQMD that such ERCs have been removed from its bank, whichever occurs earlier, the APCO shall issue a new certificate(s) in the name of the owner and include the ERCs in the Registry.

(b) ERCs which were created which were properly banked prior to July 1, 1997 pursuant to the applicable rules of the SCAQMD and which are owned by an owner/operator located within the jurisdiction of the District

may be transferred to the AVAQMD ERC Registry according to the following procedure:

(i) The owner of the ERCs shall submit a request to include the ERCs in the AVAQMD ERC Registry by:
  a. Requesting such inclusion in writing; and
  b. Surrendering the ERC certificate or other evidence of the ERCs obtained from the SCAQMD.
  c. Paying the applicable fee contained in District Rule 301.

(ii) Upon receipt of the request and documentation the APCO shall:
  a. Notify the SCAQMD in writing of the request, the intent to include such ERCs in the AVAQMD ERC Registry, and request that the SCAQMD remove such ERCs from its bank.
  b. The APCO shall, at the request of the SCAQMD, submit the original certificate and/or documentation which was surrendered to effectuate such removal.
  c. Within 90 days of such notification, upon the submission of the original certificate and/or documentation or upon receipt of notification from the SCAQMD that such ERCs have been removed from its bank, whichever occurs earlier, the APCO shall issue a new certificate(s) in the name of the owner and include the ERCs in the Registry.
  d. ERCs transferred pursuant to this subsection shall meet all requirements of California Health and Safety Code 40709.6 either at the time of the transfer or upon use.

(c) ERCs once transferred to the AVAQMD Registry pursuant to this subsection may not thereafter be utilized within the SCAQMD

(4) Other Encumbrances of ERCs

(a) Other encumbrances may be placed upon ERCs according to the following procedure:

(i) The holder of the encumbrance shall file with the District a certified copy of the final document creating the encumbrance.
(ii) Upon payment of the appropriate transfer fee as set forth in District Rule 301, the APCO shall indicate the encumbrance in the Registry.

(b) Thereafter the APCO shall not allow the use or subsequent transfer of the ERC by the owner without receipt of a certified copy of the satisfaction of

the encumbrance or by the removal of the incumbrance by its holder of the encumbrance.

(5) Readjustments of ERCs

(a) Readjustment of ERCs shall be processed as follows:

(i) The owner of the ERC shall file an application to adjust the ERC.
(ii) The APCO shall determine if the adjustment of the ERC is warranted and the amount of such adjustment pursuant to the provisions of District Rule 1304(D)(4).
(iii) After the APCO has determined the amount of the adjustment, upon surrender of the prior ERC Certificate, the APCO shall issue an adjusted ERC Certificate to the owner.

(6) Any transfer of an ERC shall not modify or otherwise alter the requirements contained in a permit or contract which render the ERC Real, Surplus, Permanent, Quantifiable, and Enforceable.

(7) Notwithstanding any other provision of law, conflicting interests in ERCs shall rank in priority according to the time of filing with the District.

(F) Utilization of ERCs

(1) Unexpired ERCs may be used as Offsets in accordance with the provisions of Rule 1305.

(G) Appeal of the Incompleteness, Granting or Denial of ERCs

(1) If an application for ERCs is deemed withdrawn pursuant to subsection (C)(2)(c)(iv) the applicant may, within 30 days of the date the application is deemed withdrawn, petition the District Hearing Board for a hearing on whether the application as submitted was incomplete.

(2) An applicant for ERCs may, within 30 days after receipt of the notice of denial of ERCs, petition the District Hearing Board for a hearing on whether the application for ERCs was properly denied.

(3) Any person who has requested notice or any aggrieved person who, in person or through a representative, appeared, submitted written testimony, or otherwise participated in the ERC action may, within 30 days after the APCO's decision, the mailing of the notice pursuant to subsection

(C)(5)(a)(ii), or the publication of the notice pursuant to subsection (C)(5)(a)(i) whichever is applicable, petition the District Hearing Board for a hearing on whether the ERCs were properly issued.

(3) The procedural provisions applicable to such a hearing shall be the same as those used for hearings regarding the denial of a permit application pursuant to California Health & Safety Code §§42302 and or 42302.1 as applicable.

[SIP: See AVAQMD SIP table at https://avaqmd.ca.gov/rules-plans]

(**Adopted**: 01/19/99)

RULE 2200
Transportation Outreach Program

(A) General

(1) Purpose

(a) This rule provides a mechanism for obtaining documentation of emission reduction efforts resulting from trip reduction programs.

(2) Applicability

(a) The provisions of this rule apply to any Employer with 250 or more Employees reporting to a Worksite within the District boundaries.

(B) Definitions

(1) For the purposes of this rule, the following definitions shall apply:

(a) "Air Pollution Control Officer" (APCO) – the person appointed to the position of Air Pollution Control Officer of the District pursuant to the provisions of California Health & Safety Code §40750 and his or her designee.

(b) "Commute Survey" – a survey conducted and reported in accordance with guidance issued by the APCO.

(c) "Employee" – any person hired by an employer to work full- or part-time for a wage or salary during sixteen or more consecutive weeks, provided the person works at least ten hours per week on average. The term exempts independent contractors.

(d) "Employer" – any employer with an account number issued by the State of California Employment Development Department.

(e) "Worksite" – a structure, building, portion of a building, or grouping of buildings in physical contact, or on contiguous properties, or on properties separated solely by a public or private roadway or right-of-way, and that are owned, occupied, or operated by the same Employer.

(C) Requirements

(1) Within 30 days of receiving a request for information from the District or of becoming subject to this rule, an Employer shall register with the District in the form and manner prescribed by the APCO.

(2) Annually the District will send a registration update form to Employers which they must confirm/correct and return within 30 days of receipt.

(3) On biennial dates mutually agreed to by the Employer and the APCO, Employer shall conduct a Commute Survey. Employer shall submit the survey data to the District within 45 days of conducting the survey. The District will not establish any initial Commute Survey dates which fall within 120 days of the date of adoption of this rule.

(a) Employer must achieve a fifty percent or better return rate of properly completed surveys.

(4) In lieu of conducting a standardized Commute Survey, an employer may propose and use an alternative method of collecting commute information provided that the alternate method is at least as accurate as a standard survey and is pre-approved by the APCO.

(5) The District shall report annually to the U.S. Environmental Protection Agency on the results of the Commute Surveys.

(D) Exemptions

(1) The provisions of subsection (C)(3) of this rule shall not apply to any Worksite where less than 125 employees are scheduled to report to work between 6:00 a.m. and 10:00 a.m. Monday through Friday. Employers must notify the District not later than 90 days after they know or should have known that they no longer qualify for this exemption.

(E) Violations

(1) Failure to register, update registration, or collect and report Employee commute data in a manner approved by the APCO by specified deadlines is a violation of this rule.

[SIP: Submitted as amended 1/19/99 on _____]