

7/75

Riverside

7/22/75

Riverside Co. APCD

Rules 53-55

RULE 53. Specific Air Contaminants.

a. Sulfur Compounds. A person shall not discharge into the atmosphere from any single source within the following areas of Riverside County, sulfur compounds in any state or combination thereof, in excess of the following concentrations at the point of discharge:

- (1) In the West-Central Area, 0.05 per cent by volume calculated as sulfur dioxide (SO<sub>2</sub>).
- (2) In all portions of Riverside County not within the West-Central Area, 0.15 per cent by volume calculated as sulfur dioxide (SO<sub>2</sub>).

b. Fluorine Compounds: Emissions shall be controlled to the maximum degree technically feasible in respect to the process or operation causing such emission, but no emission shall be permissible which may cause injury to the property of others.

~~RULE 54. Solid Particulate Matter - Weight.~~

~~A person shall not discharge in any one hour into the atmosphere from any source, solid particulate matter in excess of the amount of 0.5 lb. per ton of process weight fed per hour.~~

~~For the purposes of this rule "solid particulate matter" includes any material which would become solid particulate matter if cooled to standard conditions.~~

~~RULE 55. Exceptions.~~

~~The provisions of Rule 54 do not apply to:~~

~~a. Smoke from fires set by or permitted by any public officer if such fire is set or permission given in the performance of the official duty of such officer, and such fire in the opinion of such officer is necessary:~~

- ~~(1) For the purpose of the prevention of a fire hazard which cannot be abated by any other means, or~~
- ~~(2) The instruction of public employees in the methods of fighting fire.~~

~~1 b. Fluorine Compounds: Emissions shall be controlled to the  
2 maximum degree technically feasible in respect to the process or  
3 operation causing such emission, but no emission shall be permissible  
4 which may cause injury to the property of others.~~

5 Rule 56. Scavenger Plants.

6 Where a separate source of air pollution is a scavenger of  
7 recovery plant, recovering pollutants which would otherwise be  
8 emitted to the atmosphere, the Air Pollution Control Officer may  
9 grant a permit to operate where the total emission of pollutants  
10 is substantially less with the plant in operation than when closed,  
11 even though the concentration exceeds that permitted by Rules 53(a).  
12 The Air Pollution Control Officer shall report immediately in  
13 writing to the Air Pollution Control Board the granting of any  
14 such permit, together with the facts and reasons therefor.

15 Effective January 1, 1974, this rule shall not apply to sulfur  
16 recovery units and sulfuric acid units.

17 ~~Rule 56.1. Sulfur Recovery Units.~~

~~18 Rule 53 to the contrary notwithstanding, after December 31,  
19 1973, a person shall not discharge into the atmosphere from any  
20 sulfur recovery unit producing elemental sulfur, effluent process  
21 gas containing more than:~~

- ~~22 (1) 500 parts per million by volume of sulfur compounds  
23 calculated as sulfur dioxide.~~
- ~~24 (2) 10 parts per million by volume of hydrogen sulfide.~~
- ~~25 (3) 200 pounds per hour of sulfur compounds calculated as  
26 sulfur dioxide.~~

~~27 Any sulfur recovery unit having an effluent process gas  
28 discharge containing less than 10 pounds per hour of sulfur~~

1 ~~degree equal to or greater than does smoke described~~  
2 ~~in b (1) above.~~

3 ~~c. Paragraph a of this rule shall not apply to any article,~~  
4 ~~machine, equipment or other contrivance for which an authority to~~  
5 ~~construct or permit to operate was validly issued and in effect~~  
6 ~~on March 28, 1972, until January 1, 1973.~~

7 ~~Rule 58 is amended to read as follows:~~

8 Rule 58. Disposal of solid and liquid wastes

9 a. A person shall not burn any combustible refuse in any incinera-  
10 tor except in a multiple-chamber incinerator as described in  
11 Rule 2(p) or in equipment found by the Air Pollution Control  
12 Officer in advance of such use to be equally effective for the  
13 purpose of air pollution control as an approved multiple-chamber  
14 incinerator.

15 b. A person shall not discharge into the atmosphere from any  
16 incinerator or other equipment used to dispose of combustible  
17 refuse by burning, having design burning rates of 100 pounds per  
18 hour or less, or for which an application for permit is filed  
19 before January 1, 1972, particulate matter in excess of 0.25 grain  
20 per cubic foot of gas calculated to 12 per cent of carbon dioxide  
21 (CO<sub>2</sub>) at standard conditions and shall not discharge particles  
22 which are individually large enough to be visible while suspended  
23 in the atmosphere. Any carbon dioxide (CO<sub>2</sub>) produced by combustion  
24 of any liquid or gaseous fuels shall be excluded from the calcula-  
25 tion to 12 per cent of carbon dioxide (CO<sub>2</sub>).

26 c. A person shall not discharge into the atmosphere from any  
27 incinerator or other equipment used to dispose of combustible  
28 refuse by burning, having design burning rates greater than

1 100 pounds per hour, except as provided in paragraph (d) of this  
2 rule, particulate matter in excess of 0.1 grain per cubic foot  
3 of gas calculated to 12 per cent of carbon dioxide (CO<sub>2</sub>) at  
4 standard conditions. Any carbon dioxide (CO<sub>2</sub>) produced by com-  
5 bustion of any liquid or gaseous fuels shall be excluded from  
6 the calculation to 12 per cent of carbon dioxide (CO<sub>2</sub>).

7 d. A person shall not discharge into the atmosphere from any  
8 equipment whatsoever, used to process combustible refuse, except  
9 as provided in subsection (b) of this rule, particulate matter  
10 in excess of 0.1 grain per cubic foot of gas calculated to 12  
11 per cent of carbon dioxide (CO<sub>2</sub>) at standard conditions. Any  
12 carbon dioxide (CO<sub>2</sub>) produced by combustion of any liquid or  
13 gaseous fuels shall be excluded from the calculation to 12 per  
14 cent of carbon dioxide (CO<sub>2</sub>).

15 e. Paragraphs b, c and d of this rule shall be effective on  
16 January 1, 1974.

17 ~~Rule 72.2 is added to read as follows:~~

18 ~~Rule 72.2. Fuel Burning Equipment - Combustion Contaminants.~~

19 ~~A person shall not discharge into the atmosphere within~~  
20 ~~the west-central area, combustion contaminants exceeding in con-~~  
21 ~~centration at the point of discharge, 0.1 grain per cubic foot~~  
22 ~~of gas calculated to 12 per cent of carbon dioxide (CO<sub>2</sub>) at standard~~  
23 ~~conditions.~~

24 ~~This rule shall not apply to any article, machine, equip-~~  
25 ~~ment or other contrivance for which an authority to construct or~~  
26 ~~permit to operate was validly issued and in effect on March 28,~~  
27 ~~1972, until January 1, 1975.~~

10/13/77

RULE 101. TITLE

These rules and regulations shall be known as the rules of  
the ~~Southern-California-Air-Pollution-Control-District~~ South  
Coast Air Quality Management District.

~~RULE 102. DEFINITION OF TERMS~~

~~AIR POLLUTION CONTROL OFFICER means the Air-Pollution-Control  
Executive Officer of the Southern-California-Air-Pollution  
Control-District-South Coast Air Quality Management District.~~

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~~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

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[scribbles]

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.~~

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~~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 24304(a) 41703 of the Health and Safety Code of the State of California. *3/17/76 pursuant to 24304(a)*

(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.



(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 Air Pollution Control Officer, in the form and manner specified, that the Increments of Progress have or have not been achieved.

3/1/82 SCAQMD

10-7-81

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 March 2, 1990)(Amended April 6, 1990)

**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,

1106 - Marine Coating Operations,

1107 - Coating of Metal Parts and Products,

1115 - Motor Vehicle Assembly Line Coating Operations,

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,

1168 - Control of Volatile Organic Compound Emissions from Adhesive Application.

(2) The provisions of an AECP shall be submitted by the District to the Air Resources Board (ARB) for submittal to the Environmental Protection Agency (EPA) 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 Section 110 (a)(3)(A) of the Clean Air Act.

- (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 180 days from date of Plan submission in accordance with the schedule set forth in paragraph (e).
- (4) Each permit unit to be included in an AECP shall have been in operation pursuant to District permit or pursuant to Rule 219 prior to the submittal of the AECP application.

(c) Definitions

- (1) ALTERNATIVE EMISSION CONTROL PLAN (AECP) is a plan which allows a source to demonstrate an alternative method of rule compliance.
- (2) BASELINE EMISSIONS are the product of three factors expressed as lbs VOC/day (see (d)(7)). The factors are emissions rate, capacity utilization, and hours of operation.
- (3) EMISSION REDUCTIONS:
  - (A) ENFORCEABLE means 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.
  - (B) PERMANENT means 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.
  - (C) QUANTIFIABLE means emissions must be able to be measured before and after the reduction using the same test method and averaging time.
  - (D) SURPLUS means 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).

- (4) EQUIVALENCY PLAN is the same as an AECP.
- (5) MODIFICATION means 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:
  - (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 means any article, machine, equipment, or other contrivance, or combination thereof, which may cause or control the issuance of air contaminants, and which:
  - (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 refers to an Alternative Emission Control Plan.
- (8) REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT) is the lowest emission limit established through District regulations for a particular source.
- (9) STATE IMPLEMENTATION PLAN is the State (District) prepared plan, approved by the EPA, detailing how National Ambient Air Quality Standards will be achieved and maintained.
- (10) STATIONARY SOURCE is 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.

- (11) TRANSFER EFFICIENCY (TE) is 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.
  - (12) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1 trichloroethane, methylene chloride, trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorodifluoromethane (CFC-12), trichlorofluoromethane (CFC-11), chlorodifluoromethane (HCFC-22), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), dichlorotrifluoroethane (HCFC-123), tetrafluoroethane (HFC-134a), dichlorofluoroethane (HCFC-141b), and chlorodifluoroethane (HCFC-142b).
- (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 24-hour daily emissions basis; and
    - (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 Executive Officer 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 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.
  - (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 emission reduction will be obtained; and
  - (E) an explanation of how the proposed 20 percent emission reduction will be enforceable, permanent, quantifiable, and surplus; and
  - (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 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.
- (6) The Plan shall result in at least a twenty (20) percent reduction in VOC baseline emissions, thus producing a net air quality benefit and establishing an AECP emissions limit.
- (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)

$$\text{Baseline emissions} = \text{ER} \times \text{CU} \times \text{H} = (\text{lbs VOC/day})$$

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 Executive Officer not to exceed 24 hours. Sources lacking specific hours of operation records may substitute daily records (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 years directly preceding the source's application for a Plan, unless another two-year period can be shown to the satisfaction of the Executive Officer and EPA to more accurately represent the source's normal allowable operations. No credit will be given for down-time.

- (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 120 days of rule adoption. The District will move to approve or deny such Plans within 180 days of submittal; or
    - (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 180 days of rule adoption. The District will move to approve or deny such Plans within 180 days of submittal.
  - (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 60 days following the date the specific rule relating to the Plan is amended if the rule amendment is pertinent to the Plan; or

(C) not less than 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.

(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 the Clean Air Act Section 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.
- (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.
- (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).

(Adopted May 5, 1989)

**RULE 109. RECORDKEEPING FOR VOLATILE ORGANIC COMPOUND EMISSIONS**

(a) Applicability

(1) 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.

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

- 1104 - Wood Flat Stock Coating Operations,
- 1106 - Marine Coating Operations,
- 1107 - Coating of Metal Parts and Products,
- 1122 - Solvent Cleaners (Degreasers),
- 1124 - Aerospace Assembly and Component Coating Operations,
- 1125 - Can and Coil Coating Operations,
- 1126 - Magnet Wire Coating Operations,
- 1128 - Paper, Fabric, and Film Coating Operations,
- 1130 - Graphic Arts,
- 1136 - Wood Products Coatings,
- 1145 - Plastic, Rubber, and Glass Coatings and Adhesives,
- 1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations,
- 1164 - Semiconductor Manufacturing,
- 1168 - Control of Volatile Organic Compound Emissions from Adhesive Applications.

(b) Definitions

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

- (2) Low Solids Adhesive, Adhesive Primer, or Stain is one which has less than one pound of solids per gallon of material.
  - (3) 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 Rules 201 and/or 203, or
    - (B) is in operation pursuant to the provisions of Rule 219.
  - (4) 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.
  - (5) Volatile Organic Compound (VOC) is any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1 trichloroethane, methylene chloride, trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorodifluoromethane (CFC-12), trichlorofluoromethane (CFC-11), chlorodifluoromethane (CFC-22), dichlorotetrafluoroethane (CFC-114), and chloropentafluoroethane (CFC-115).
- (c) 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 (use of amounts of one pint per week or less may be recorded in an alternative manner);
  - (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 (use of amounts of one pint per week or less may be recorded in an alternative manner);
  - (G) where applicable, the vapor pressure of solvents used as surface cleaners; and
  - (H) oven temperature (for coating operations).
- (2) VOC content shall be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coatings, and inks; using 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, 7/1/85 edition), or an equivalent ASTM method approved by the Executive Officer. The exempt solvent content shall be measured as specified in Rule 107. The test method shall be documented. The VOC content may be supplied by a Material Data Safety Sheet (MSDS) or data sheet provided the test method or equivalent described above is used and specified on the MSDS or data sheet.
- (3) VOC content and density of rotogravure publication inks shall be determined by EPA 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) or

an equivalent ASTM method approved by the Executive Officer. The exempt solvent content shall be measured as specified in Rule 107.

- (4) 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 Rules 1136 and 1168.
  
- (d) Provisions of this rule shall become effective on November 5, 1989.

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.

*? did.?*

*what application*

~~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.~~



ADOPTED

4/21/76

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.~~

*?dit.?*

*what application*

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.

REGULATION II

8/2/76  
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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.~~

4/21/76

received 7/76

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~~(e) 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)~~

revised 7/76

4/21/76

~~(e) 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.~~

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~~RULE 206. (Reserved)~~

4/21/76

revised 7/76

~~(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.~~

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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)~~

6/21/76

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.~~

6/6/77

~~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. 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

*(Adopted 10/8/76)*

~~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.

4/24/76

~~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.~~

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RULE 208. (Reserved)

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4/21/76

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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.

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RULE 212. STANDARDS FOR APPROVING PERMITS

- (a) The Executive Officer shall deny a permit to construct or a permit to operate, except as provided in 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 Sections 41700 or 41701 of the State Health and Safety Code or of these rules.
  
- (b) If the Executive Officer 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) Upon determination of the Executive Officer that a Resource Recovery Project (as defined in Section 39050.5 of the State Health and Safety Code) proposed by a governmental agency must be evaluated based on specifications and other information, the Executive Officer may issue a special conditional permit to construct, provided:
  - (1) The applicant submits with the initial specifications the following:
    - (A) Certified Negative Declaration or Environmental Impact Report required under the California Environmental Quality Act;

RULE 212

(B) Certification that the project will utilize Best Available Control Technology, as specified by the District;

(C) Dispersion modeling of the project's impacts; and

(D) The results of attempts to secure offsets as required by state law.

(2) The special conditional permit to construct is valid for not more than one year, unless extended by the Executive Officer; and

(3) The applicant submits all plans, specifications, and data, when available, that would otherwise be required.

(d) No construction shall commence under the special conditional permit until: the applicant has submitted all plans and specifications necessary for complete review; the Executive Officer has reevaluated the project under the original application and certifies that the project may be expected to comply with these District Rules and Regulations; and the appropriate public notice has been given.

Prior to

(e) An application for permit to construct a significant project shall be granted, addresses being  
denied unless all businesses and households within the area described in paragraph (f) have been notified of the Executive Officer's intent to grant a permit to construct at least 30 days prior to the date action is to be taken on the application. For the purpose of this Section, significant projects will consist of: all new plants which are subject to the full provisions of New Source Review; modifications to existing facilities, which modifications are subject to the full provisions of New Source Review in the categories of resource recovery, cogeneration, sewage plants, electric power plants, or refineries; and all plants emitting toxic or potentially toxic air contaminants. Potentially toxic air contaminants are

RULE 212

substances currently under review by the Air Resources Board for possible identification as toxic air contaminants, or any other material determined by the Executive Officer to be potentially toxic.

- (f) 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 for the permit to construct shall be responsible for the distribution of the public notice to each address within a 2-mile radius of the project or such other greater area as ~~approved~~ determined appropriate by the Executive Officer. The applicant shall provide verification to the Executive Officer that the public notice has been distributed as required by this Section.

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~~RULE 212. Standards for Approving Permits.~~

~~(a) The Air Pollution Control Officer shall deny a permit to construct or permit to operate, except as provided in 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 equipment that it may be expected to operate without emitting <sup>or without causing to be emitted</sup> air contaminants in violation of Sections 41700 or 41701 of the State Health and Safety Code or of these rules.~~

~~(b) If the Air Pollution Control Officer 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.~~

~~RULE 213 (Reserved)~~

RULE 214. Denial of Permits. In the event of denial of a permit, the Air Pollution Control Officer shall notify the applicant in writing of the reasons. Service of this notification may be made in person or by mail. Such service may be proven by the written acknowledgment of the persons served or affidavit of the person making the service. The Air Pollution Control Officer

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shall not accept a further application unless the applicant has complied with the objections specified by the Air Pollution Control Officer as the reasons for denial of the permit.

~~RULE 215. Permits Deemed Denied. The applicant may at his option deem the permit denied if the Air Pollution Control Officer fails to act on the application for permit within 30 days after filing, or within 30 days after the applicant furnishes further information, plans and specifications requested by the Air Pollution Control Officer, whichever is later.~~

~~RULE 216. Appeals. The applicant may petition the Hearing Board in writing within 10 days after receipt of notification from the Air Pollution Control Officer of the denial of a permit or the conditions of operation imposed on the permit. The Hearing Board shall hold a public hearing within 30 days after receiving the petition. The Hearing Board may sustain or reverse the action of the Air Pollution Control Officer. The Hearing Board order may be made subject to specified conditions.~~ *? wording*

~~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.~~

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4/21/76

~~shall not accept a further application unless the applicant has complied with the objections specified by the Air Pollution Control Officer as the reasons for denial of the permit.~~

RULE 215. Permits Deemed Denied. The applicant may at his option deem the permit denied if the Air Pollution Control Officer fails to act on the application for permit within 30 days after filing, or within 30 days after the applicant furnishes further information, plans and specifications requested by the Air Pollution Control Officer, whichever is later.

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4/21/76

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4/21/76

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The platform and access shall be constructed in accordance with the General Industry Safety Orders of the State of California.

~~RULE 218. (Reserved)~~

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

~~A permit shall not be required for the following equipment:~~

~~(a) Vehicles and Transportation Equipment~~

~~(1) Vehicles, but not to include any equipment mounted on such vehicle that would otherwise require a permit under the provisions of these rules.~~

~~(2) Equipment mounted upon vehicles used exclusively to transport materials on streets or highways (does not include asphalt or coal tar pitch roofing kettles).~~

~~(3) Pumps used exclusively for direct fueling of: vehicles as defined by the Vehicle Code of the State of California, mobile equipment used on land, locomotives, boats, ships or aircraft.~~

~~(b) Combustion and Heat Transfer Equipment~~

~~(1) Internal combustion engines with a rating of 500 S. A. E. horsepower or less.~~

~~(2) Equipment used exclusively as steam generators, steam superheaters, water boilers, water heaters, hydrocarbon heaters and closed heat transfer systems that have a maximum heat input rate of less than 5, 040, 000 kilogram calories (20, 000, 000 British Thermal Units) per hour (gross) and are fired exclusively with one~~

South Coast  
10/23/81

Adopted January 9, 1976  
Amended April 1, 1977  
Amended August 5, 1977  
Amended April 6, 1979  
Amended August 7, 1981

Amended Rule 218 - Stack Monitoring

(a) Stack Monitoring Requirements

(1) The owner or operator of any equipment described below shall provide; properly install, maintain in calibration, in good working order and in operation; approved stack monitoring systems to measure the concentration of the following air contaminants and diluent gases in the emissions from the sources indicated. The owner or operator shall also provide any other data necessary for calculating air contaminant emission rates.

(A) Oxides of nitrogen ( $\text{NO}_x$ ), and carbon dioxide ( $\text{CO}_2$ ) or oxygen ( $\text{O}_2$ ), from steam generators with a heat input of 63 million kilogram calories (250 million British Thermal Units) or more per hour and with a use factor of at least 30 percent.

(B) Sulfur dioxide ( $\text{SO}_2$ ) from steam generators with a heat input of 63 million kilogram calories (250 million British Thermal Units) or more per hour and with a use factor of at least 30 percent if control equipment is used.

## Amended Rule 218

- (C) Oxides of nitrogen ( $\text{NO}_x$ ) from all nitric acid production plants.
  - (D) Gaseous sulfur compounds calculated as sulfur dioxide ( $\text{SO}_2$ ) from all sulfuric acid production plants, carbon monoxide boilers or furnaces of the regenerators of fluid catalytic cracking units, and all fluid cokers.
  - (E) Sulfur dioxide ( $\text{SO}_2$ ) from sulfur recovery plants with oxidizing tail gas units, and with reducing tail gas units using continuous incineration for control of hydrogen sulfide ( $\text{H}_2\text{S}$ ).
- (2) The Executive Officer may require a person to provide, properly install, maintain in calibration, in good working order and in operation, an approved stack monitoring system to measure air contaminants in emission gases when that person installs, operates, or uses any equipment which emits 900,000 kilograms (992 tons) or more per year of carbon monoxide ( $\text{CO}$ ) or 90,000 kilograms (99 tons) or more per year of any air contaminant except carbon monoxide ( $\text{CO}$ ). The Executive Officer shall report to the District Board in writing when he requires the installation of a stack monitoring system under the provisions of this subpart.

## Amended Rule 218

## (b) Approval of Monitoring Systems

- (1) All monitoring systems to be installed after April 6, 1979, require an initial approval by the Executive Officer, prior to installation. The Executive Officer shall act upon an application for initial approval within 30 days after filing or within 30 days after the applicant furnishes further information, plans and specifications requested to complete an application. Upon completion of installation, a person operating or using a stack monitoring system shall undertake a series of tests to demonstrate the acceptability of the system's performance pursuant to (c) below. Within 6 months of initial operation, data from such tests shall be submitted to the Executive Officer for approval. If satisfactory performance is demonstrated, a final approval of the system shall be granted.
- (2) A person operating a monitoring system installed on or before April 6, 1979, shall, by June 1, 1979, submit a plan to the Executive Officer outlining steps to achieve compliance with the performance specifications of (c) below as expeditiously as practicable, but in no event later than March 2, 1981.

Each plan shall include, but shall not necessarily be limited to, dates and methods for achieving the following increments of progress:

1. Submit test results.
2. Negotiate and sign contracts.
3. Commence modification or replacement of non-complying systems.
4. Complete modification or replacement of non-complying systems.
5. Submit final test results.
6. Achieve final compliance with (c) below on or before March 2, 1981.

Non-complying systems shall be operated at the level of performance indicated by test results. Each system shall be operated in accordance with the plan.

- (3) A person operating an approved monitoring system shall affix such written notice of approval or a legible facsimile upon the equipment in a manner such that it is clearly visible and legible. 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 Executive Officer.

(c) Monitoring System Standards

- (1) The monitoring system shall be installed at a location such that air contaminant and diluent gas concentration measurements can be made which are representative of the stack emissions of the affected facility.



## Proposed Amended Rule 218

- (2) Prior to final approval of the monitoring system, it shall meet, and it shall thereafter be operated in accordance with, the following performance and equipment specifications:

## (A) Monitors for Gaseous Air Contaminants

Parameter	Specifications
(i) Operational Period*	Greater than or equal to 168 hours.
(ii) Calibration Error**	Less than or equal to 5 percent.
(iii) Response Time	Less than or equal to 10 minutes.
(iv) Zero Drift (2-hour)**	Less than or equal to 2 percent of full scale reading.
(v) Zero Drift** (24-hour)	Less than or equal to 2 percent of full scale reading.
(vi) Calibration Drift (2 hour)**	Less than or equal to 2 percent of full scale reading.
(vii) Calibration Drift (24 hour)**	Less than or equal to 2.5 percent of full scale reading.

## Amended Rule 218

Parameter	Specifications
(viii) Relative Accuracy**	Less than or equal to 20 percent of the mean value of the reference method test data or less than or equal to 10 percent of the allowed concentration, whichever is greater.

## (B) Monitors for Diluent Gases

Parameter	Specifications
(i) Operational Period*	Greater than or equal to 168 hours.
(ii) Calibration Error**	Less than or equal to 5 percent.
(iii) Response Time	Less than or equal to 10 minutes.
(iv) Zero Drift (2 hour)**	Less than or equal to 0.4 percent CO <sub>2</sub> or O <sub>2</sub> .
(v) Zero Drift** (24 hour)	Less than or equal to 0.5 percent CO <sub>2</sub> or O <sub>2</sub> .

## Amended Rule 218

Parameter	Specifications
(vi) Calibration Drift (2 hour)**	Less than or equal to 0.4 percent CO <sub>2</sub> or O <sub>2</sub> .
(vii) Calibration Drift (24 hour)**	Less than or equal to 0.5 percent CO <sub>2</sub> or O <sub>2</sub> .

(3) The monitoring system shall be operated according to the following standards:

(A) Calibration gases shall meet the following criteria:

- (i) For gaseous air contaminant monitors, the mixture shall be certified to be within two percent of the stated value.
- (ii) For carbon dioxide and oxygen monitors, the mixture shall be certified to be within 0.2 percent carbon dioxide or oxygen of the stated value. Ambient air may be used for oxygen monitors if the span is higher than 21 percent oxygen.

(B) Zero gases used shall meet the following criteria:

## Amended Rule 218

- (i) For gaseous air contaminant monitors, the gas shall be certified by the manufacturer to contain less than 1 part per million of the air contaminant (except for carbon monoxide, less than 10 parts per million), or alternately, ambient air may be used.
  - (ii) For carbon dioxide and oxygen monitors, the gas shall be certified by the manufacturer to contain less than 100 parts per million of carbon dioxide or oxygen.
- (C) Every six months, calibration gases shall be reanalyzed by the National Bureau of Standards procedures.
  - (D) Calibration checks shall be performed at least once each day at regular intervals.
  - (E) The instrument full scale reading shall be equivalent to approximately 200 percent of the concentration limit specified in the applicable rule, or at a value approved by the Executive Officer. Oxygen and carbon dioxide instruments full scale readings shall be such that the full range of concentrations encountered can be measured.

## Amended Rule 218

- (F) Regular scheduled maintenance of the monitoring system shall be deferred until the report required under Section (e)(2) is made, if the system is measuring a concentration equal to or exceeding the emission standard, and if such deferral will not reasonably be expected to result in damage to the system.
- (G) The monitoring system shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording), for each successive 15-minute period.
- (H) The requirements of sections (c)(3)(G) shall not apply to the following conditions:
- (i) Regular calibration checks of the system.
  - (ii) Routine maintenance and repair of 60 minutes or less duration.
- (4) Following final approval, if significant modifications are made to the system, a demonstration of the ability of the system to operate in accordance with the specifications of (c)(2) may be required at the discretion of the Executive Officer.

## Amended Rule 218

- (5) Span cell calibration techniques may be employed with in situ monitors, not extracting the gas sample from the stack if the criteria of (c)(2)(A)(ii), (vi) and (vii) can be met and if the use of the cell provides a check of all analyzer internal mirrors and lenses and all electronic circuitry including the source and detector assembly which are normally used in sampling and analysis.
  - (6) Zero calibration reflector techniques may be employed with in situ monitors, not extracting the gas sample from the stack, if the criteria of (c)(2)(A)(iv) and (v) can be met.
- (d) Retention of records
- (1) The records of the data obtained from the recording devices of the stack monitoring system shall clearly indicate concentrations as specified by the Executive Officer. Records shall be maintained by the owner or operator of a monitoring system for a period of at least two years and shall be made available to the Executive Officer upon request.
  - (2) All records of the occurrence and duration of any start up, shutdown or malfunction, performance test, evaluation, calibration, adjustment and maintenance

## Amended Rule 218

of the monitoring system as well as calibration gas traceability or span cell specifications documents, shall be retained by the monitoring system operator for a period of at least 2 years and shall be made available to the Executive Officer upon request.

## (e) Reporting

- (1) A person operating a stack monitoring system shall provide a summary of the concentration and emission data obtained from such system, as well as any additional information specified by the Executive Officer to evaluate the accuracy and precision of the measurements. The summary shall be submitted monthly to the Executive Officer within 30 days of the end of the month being reported, in the form and manner prescribed by him. The summary shall be available for public inspection at the office of the Air Quality Management District.
- (2) A person operating a monitoring system shall report any concentration level in excess of the regulated limit to the Executive Officer within 96 hours after such occurrence in the form and manner prescribed by him. The report shall include the following information:

## Amended Rule 218

- (A) Time intervals, date, and magnitude of the excess concentration level; nature and cause of the excess (if known), corrective actions taken and preventive measure adopted.
  - (B) Averaging period used for data reporting shall correspond to the averaging period specified in the rule governing the concentration limit in question.
- (3) Reports of Monitoring System Failure or Shutdown
- (A) A person operating a monitoring system shall notify the Executive Officer within 96 hours, in a form and manner prescribed by him, in the event of a system failure or shutdown for repair, which exceeds 60 consecutive minutes. Zero and calibration checks and routine maintenance do not require reporting.
  - (B) In the case of a monitoring system failure or shutdown for repair, compliance with the provisions of subsection (a) 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 and shall terminate at the time the Hearing Board acts upon such variance petition.



## Amended Rule 218.

## (f) Exemption

Any source subject to the provisions of (a)(1) above may obtain an exemption from the provisions of (a)(1) above upon demonstration to the satisfaction of the Executive Officer that the source is not subject to a District rule or regulation prohibiting or limiting the discharge of any air contaminants which are the subject of (a)(1).

## (g) Definitions

- (1) Calibration is an operating condition of the monitoring system whereby the system is accurately recording the concentration of the specific air contaminant or diluent gas as evidenced by calibration checks, achieved by periodic manual or automatic adjustment.
- (2) Calibration Check is a procedure to determine the response of the system to a given gaseous compound concentration by means of injecting a certified calibration gas mixture into the system, or the insertion of a span cell into the internal light path of the analyzer.
- (3) Calibration Drift\*\* is the change in the monitoring system output over a stated time 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, or

## Amended Rule 218

simulated to be the same upscale value by use of a span cell.

- (4) Calibration Error\*\* is the difference between the air contaminant or diluent gas concentration indicated by the monitoring system and the known concentration of the span gas or the equivalent rating of the span cell.
- (5) Calibration Gas is a mixture of the air contaminant gas, or carbon dioxide or oxygen in a diluent gas, which, when periodically introduced into the monitoring system, is used to check that system's accuracy.
- (6) Certified Gas Mixture is a mixture analyzed, by replicate samples, by the manufacturer by referring to National Bureau of Standards Reference Materials, such that a statement of the precision of the analysis can be made.
- (7) Diluent Gas is a gas present in a calibration gas mixture or in the emissions from a source which is present in quantities significantly larger than the air contaminant.
- (8) Ninety-five percent confidence interval is the statistically determined range within which there is a 95 percent probability all values determined will lie.

## Amended Rule 218

- (9) Operational Period is a minimum period of time during which the monitoring system shall operate, according to the performance and equipment specifications, without unscheduled maintenance, repair, or adjustment.
- (10) Parts Per Million is a volume concentration measurement, indicating the volumetric quantity of the gas in question, dispersed in one million volumes of gas mixture, reported on a dry basis.
- (11) Reference Method is the official test method employed by the District to determine compliance with the rules.
- (12) Relative Accuracy is the degree of correctness with which the monitoring system yields the value of gas concentration of a sample relative to the value given by the reference method or to the allowed concentration. This accuracy is expressed in terms of error, which is the absolute value of the mean of the differences between the paired concentration measurements plus the absolute value of the 95 percent confidence interval. It is expressed as a percentage of the mean reference method value or of the allowed concentration. When a rule requires a correction of the air contaminant concentration to a specific O<sub>2</sub> or CO<sub>2</sub> concentration, the relative

## Amended Rule 218

accuracy requirement shall apply to the corrected concentration value.

- (13) Response Time is the time interval from a step change in the air contaminant or gas diluent concentration at the input to the monitoring system to the time at which 95 percent of the corresponding final value is reached as displayed on the monitoring system data recorder.
- (14) Routine Maintenance is an operation, recommended by the manufacturer to be performed at specified intervals, to preclude system failure. Repairs to a malfunctioning system are excluded from this definition.
- (15) Span Cell is a sealed cell of fixed length, containing a known concentration of an air contaminant, which is inserted into the internal light path of the analyzer to provide a measurement output that corresponds to a known concentration of that air contaminant.

## Amended Rule 218

(16) Stack Monitoring System, or Monitoring System is the total equipment required for the ~~determining~~ determination of the concentrations of air contaminants and diluent gases in a source effluent. The system consists of three major subsystems:

(A) Sampling Interface - that portion of the monitoring system that performs one or more of the following operations: delineation, acquisition, transportation, and conditioning of a sample of the source effluent or protection of the analyzer from the hostile aspects of the sample or source environment.

(B) Analyzer

(i) Air Contaminant Analyzer - that portion of the monitoring system that senses the air contaminant and generates a signal output that is a function of the concentration of that gas.

(ii) Diluent Analyzer - that portion of the monitoring system that senses

## Amended Rule 218

the concentration of oxygen or carbon dioxide and generates a signal output that is a function of the concentration of that gas. This subsystem is required only for sources noted in (a)(1)(A), and ~~(B)~~.

- (C) Data Recorder - that portion of the monitoring system that provides a permanent record of the output signal in terms of concentration units, including additional equipment such as computers required to convert the original recorded value to any value required for reporting.
- (17) System Failure occurs anytime the monitoring system is suspected or known to be unable to meet the requirements of (c)(2) or (b)(2), as applicable.
- (18) Use Factor is the amount of time used per year divided by the amount of time available for use per year, expressed as a percent.
- (19) Zero Calibration Reflector is a device which is inserted into the internal light path of the analyzer to provide a measurement output that simulates a zero gas concentration.

## Proposed Amended Rule 218

(20) Zero Drift\*\* is the change in the monitoring system output 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, or is simulated to be zero by use of a zero calibration reflector.

(21) Zero Gas is a gas containing less than a specified amount of the air contaminant or diluent gas which, when periodically injected into the monitoring system, is used to check that system's response to the absence of the air contaminant or diluent gas.

\* The operational period test performed prior to final approval shall be preceded by a 168 hour (minimum) conditioning period during which the system shall be operated without unscheduled maintenance, repair or adjustment.

\*\* Expressed as the sum of the mean value plus the 95 percent confidence interval of a series of tests.

South Coast  
10/23/81

Rule 220. Exemption--Net Increase in Emissions

(Adopted Nov. 4, 1977)  
(Amended August 7, 1981)

- (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 Sections 40826 and 40807, the ~~District Board~~ Executive Officer may exempt a source from any prohibitory rule of Regulations IV and XI if ~~the Board~~ 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 ~~Board~~ Executive Officer 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 ~~District Board~~ Executive Officer 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 Executive Officer may apply to the Board to request that the exemption granted be revoked~~ 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 Executive Officer. The Executive Officer 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 Board to rehear the matter. Such petition shall contain a verified statement of facts setting forth the basis for petitioner's claim that the Executive Officer improperly denied or revoked the exemption. The District Board, after considering the petition, may grant or deny a hearing. If it denies a hearing, it shall state the basis for its denial.

11/12/85

October 31, 1984  
adopted January 4, 1985

~~Proposed~~ 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 Executive Officer 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 Executive Officer.
- (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.

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.~~

8/2/76

RULE 403. Fugitive Dust

(a) A person shall not cause or allow the emissions of fugitive dust from any transport, handling, construction or storage activity so that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source. (Does not apply to emissions emanating from unpaved roadways open to public travel or farm roads. This exclusion shall not apply to industrial or commercial facilities.)

(b) A person shall take every reasonable precaution to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land and solid waste disposal operations.

(c) A person shall not cause or allow particulate matter to exceed 100 micrograms per cubic meter when determined as the difference between upwind and downwind samples collected on high volume samplers at / such person's property line for a minimum of five hours.

(d) A person shall take every reasonable precaution to prevent visible particulate matter from being deposited upon public roadways as a direct result of their operations. Reasonable precautions shall include, but are not limited to, the removal of particulate matter from equipment prior to movement on paved streets or the prompt removal of any material from paved streets onto which such material has been deposited.

(e) Subsections (a) and (c) shall not be applicable when the wind speed instantaneously exceeds 40 kilometers (25 miles) per hour, or when the average wind speed is greater than 24 kilometers (15 miles) per hour. The average wind speed determination shall be on a 15 minute average at the nearest official air-monitoring station or by wind instrument located at the site being checked.

(f) The provisions of this rule shall not apply to agricultural operations.

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.

Proposed Amended Rule 404-Particulate Matter-Concentration

(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	0.156	900	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	.0283
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	.0684	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



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 Rate Allowed for Solid Particulate Matter (Aggregate Discharged From All points of Process)	
Grams Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour
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
900	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
5000	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

March 23, 1982

8/6/82

4-2-82

~~Proposed~~ Amended Rule 407 - Liquid and Gaseous Air  
Contaminants

(a) A person shall not discharge into the atmosphere from any  
source: equipment:

(1) Carbon monoxide (CO) exceeding 2,000 ppm by  
volume, measured on a dry basis, averaged over  
a minimum of 15 consecutive minutes.

~~The provisions of this subsection shall not apply to~~  
~~emissions from internal combustion engines.~~

(2) Sulfur compounds which would exist as a liquid or gas  
at standard conditions, calculated as sulfur dioxide  
(SO<sub>2</sub>) and averaged over 15 consecutive minutes,  
exceeding:

(A) In the South Coast Air Basin, 500 ppm  
by volume.

(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 ).

~~Proposed~~ Amended Rule 407

(ii) 1500 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 limits of Rule 431.1.

8/2/76

RULE 408. Circumvention

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 41700 of the Health and Safety Code, or of Rule 402 of these Rules.

1/29/76

South Coast  
12/23/81

~~RULE 407. Liquid and Gaseous Air Contaminants (Adopted May 7, 1976)~~

~~(a) A person shall not discharge into the atmosphere from any source carbon monoxide (CO) exceeding 2000 ppm measured on a dry basis, averaged over a minimum of 15 consecutive minutes.~~

~~The provisions of this subsection shall not apply to emissions from internal combustion engines.~~

~~RULE 408. Circumvention (Adopted May 7, 1976)~~

~~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 41700 of the Health and Safety Code, or of Rule 402 of these Rules.~~

RULE 409. Combustion Contaminants (Adopted May 7, 1976)  
*Amended August 7, 1981*

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 (CO<sub>2</sub>) 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.

Amended 5-6-83

March 25, 1983

~~Proposed~~ Amended Rule 431.1 - Sulfur Content of Gaseous Fuels

{c}{a} Definitions:

For the purpose of this rule, the following definitions shall apply:

~~{1}--REFINERY-OR-PROCESS-GAS-is-any-liquified-petroleum-gas-or-gas-generated-by-a-petroleum-refining-or-an-industrial-process-which-is-used-within-the-refinery-or-industrial-facility-and-not-commercially-sold.~~

{2}{1} GASEOUS FUELS are include, but are not limited to, any natural, process, synthetic, landfill, sewage digester or waste gases with a gross heating value of over 2670 kilogram calories per cubic meter (300 BTU per cubic foot) or higher, at standard conditions. ~~Gaseous-fuels-do-not-include-gases-generated-from-catalyst-regeneration-in-a-catalytic-cracking-unit.~~

{2}{2} LANDFILL GAS is any gas derived through a natural process from the decomposition of organic waste buried within a waste disposal site, which consists mainly of methane and carbon dioxide.

{4}{3} SEWAGE DIGESTER GAS is any gas derived from an anaerobic decomposition of organic sewage within its containment, which consists mainly of methane and carbon dioxide.

-2-

Proposed Amended Rule 431.1

{5}{4} BURNING means the combustion of gaseous fuels, whether for useful heat or by incineration without heat recovery, except for flaring of emergency vent gases.

{a}{b} Requirements:

(1) A person shall not sell any gaseous fuel, containing sulfur compounds in excess of 80 ppm (parts per million) calculated as hydrogen sulfide except landfill gas or sewage digester gas.

(2) A person shall not sell landfill gas or sewage digester gas containing sulfur compounds in excess of 250 ppm calculated as hydrogen sulfide.

~~{3}--Effective-January-1,-1985,-a-person-shall-not-sell-sewage-digester-gas-containing-sulfur-compounds-in-excess-of-250-ppm-calculated-as-hydrogen-sulfide.~~

{4}{3} Notwithstanding the provisions of subsections {a}{b}(1), or {a}{b}(2) or {a}{3} of this rule, a person may sell any gaseous fuel provided that:

(A) The gaseous fuel is delivered directly to a sulfur removal unit which reduces the sulfur content to, or below the limit of subsection {a}{b}(1), or {a}{b}(2) or {a}{b}(2) as applicable, and

7/19/83

Proposed Amended Rule 431.1

(B) The seller notifies the Executive Officer prior to any such sale, of the quantity, heat value, and composition of the the gaseous fuel to be sold, and

(C) The buyer has an approved Permit to Construct and/or Permit to Operate for the sulfur removal unit that will be used to treat the purchased gas.

~~(B)~~(4) A person shall not burn, nor discharge to any fuel gas system or vent gas disposal system, any refinery-gas, process-gas, or other gaseous fuel containing sulfur compounds in excess of 800 ppm calculated as hydrogen sulfide, unless sulfur compounds in the stack gases are reduced to a level below that which would be emitted when using a fuel which complies with the requirements of this subsection. For purposes of this subsection, the 800-ppm limit shall apply to the gaseous fuel as vented from a process unit or, if applicable, as vented from a sulfur removal unit.

~~(b)~~(c) Exemptions:

The provisions of this rule shall not apply to:

(1) Gaseous sulfur compounds used in manufacture the production of sulfur or sulfur compounds.

Proposed Amended Rule 431.1

(2) Burning of waste gases provided that the gross heating value of such gases is less than 2670 kilogram-calories per cubic meter (300 British Thermal Units per cubic foot) at standard conditions and any fuel used to incinerate burn such waste gases does not contain sulfur or sulfur compounds in excess of the amount specified in this rule.

(3) Sewage-digester-gas. Burning of the following gases from equipment or processes subject to Regulation XI:  
(A) FCCU regeneration gases (Rule 1105).  
(B) Combined exit gases from an air pollution control system for steam drive oil wells (Rule 1148), provided that gases from individual well vents comply with the requirements of this rule.

(4) Gases vented during refinery turnaround pursuant to Rule 1123.

(5) Gases vented to a control system pursuant to Rule 466.

~~(4)~~(6) Gaseous fuels from which the gaseous products of combustion are used as raw materials for other processes.



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- ~~(5) -- Gaseous fuels used to propel or test any vehicle, aircraft, locomotive, boat or ship.~~
- ~~(6) -- Gaseous fuels 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 would be emitted by using a fuel which complies with the provisions of this rule.~~
- (7) Gases vented intermittently to fuel gas or waste gas disposal systems from pressure control valves, sight glasses, compressor bottles, sampling systems, and pump and compressor case vents.
- (8) Vent gas streams, excluding coker blowdown, which have been connected to fuel gas or vent gas disposal systems (or are approved for such connection by Permit to Construct and/or Permit to Operate) prior to (date of adoption), provided:

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- (A) A petition for such exemption, including details of volume, composition and source of the subject vent stream, is received by the Executive Officer within 120 days from (date of adoption); and
- (B) Where the subject vent gas stream is not identified in a current Permit to Construct or Permit to Operate, an application for permit revision is received by the Executive Officer within 120 days from (date of adoption). Such application shall be subject to the filing fee required by Rule 301(a)(1) and permit revision fee required by Rule 301(h)(2).
- ~~(7)(9)~~ Any source from which the total sulfur compounds in gaseous fuel is below-ten less than 30 pounds per day calculated as hydrogen sulfide.
- (d) Compliance Schedule
- (1) Unless new or modified equipment requiring a permit to construct is necessary for compliance with the requirements of section (b) of this rule, such requirements shall be effective on (date of adoption).

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(2) When new or modified equipment requiring a permit to construct is necessary for compliance with the requirements of section (b) of this rule, compliance with such requirements shall be achieved in accordance with the following schedule: On or before

- (A) September 1, 1983, submit to the Executive Officer for approval, an application for permit to construct or a plan which describes, at a minimum, the steps that will be taken to achieve compliance with this rule.
- (B) September 1, 1984, award a contract for required equipment installation or modification; or issue orders for the purchase of parts and materials for such installation or modification.
- (C) December 1, 1984, initiate on-site equipment installation or modification.
- (D) May 1, 1985, complete on-site installation or modification.
- (E) July 1, 1985, assure compliance with the requirements of this rule.

Rule 431.2 Sulfur Content of Liquid Fuels

7/22/79  
Revised October 20, 1978  
Adopted December 2, 1977

- (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.

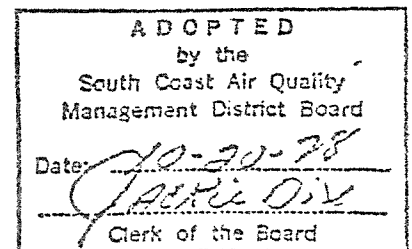
(C) Noncomplying fuel may be burned if the concentration of sulfur dioxide in stack gases is no more than would be present if liquid fuel with a sulfur content of not more than 0.25 percent were burned..

(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.



4/23/80

Revised February 2, 1979  
Revised October 20, 1978  
Adopted December 2, 1977

Rule 431.2 Sulfur Content of Liquid Fuels

~~(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 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 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~~

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~~(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.  $\approx$  140-150 ppm~~

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(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<sub>2</sub>) 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.

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RULE 42. 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.

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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 May 7, 1976)(Amended March 3, 1978)(Amended March 2, 1979)  
(Amended April 4, 1980)(Amended December 7, 1990)

**RULE 465. VACUUM PRODUCING DEVICES OR SYSTEMS**

**(a) Applicability**

The provisions of this rule shall apply to all organic emissions from any vacuum producing devices or systems including hot wells and accumulators.

**(b) Requirements**

An owner or operator of a vacuum producing device or system shall:

- (1) equip hot wells and accumulators with covers.
- (2) collect and treat exhaust gases from any vacuum producing device or system containing sulfur compounds in excess of 800 ppm expressed as hydrogen sulfide to reduce the sulfur compound concentration to below 800 ppm, expressed as hydrogen sulfide.
- (3) collect, compress, and add to the refinery fuel gas system, or control all exhaust gases from any vacuum producing device or vacuum system, including hot wells and accumulators, or from desulfurization equipment required in subparagraph (b)(2) such that the mass of organic emissions are reduced by at least 90 percent.

**(c) Test Methods**

Efficiency of the control device shall be determined according to EPA Method 25, 25A, or SCAQMD Test Method 25.1 (March 1989). 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.

**(d) Exemptions**

- (1) The provisions of subsection (b)(2) of this rule shall not apply to exhaust gases from any vacuum producing device or system provided that the gross heating value of such gases is less than 2500 kilogram-calories per cubic meter (280 British Thermal Units per cubic foot) at standard conditions.

- (2) The provisions of subsections (b)(1) and (b)(3) shall not apply to any vacuum system, including associated accumulators and hot wells, if the total uncontrolled emission rate of organic gases is less than 20 pounds per day.

~~August 23, 1983~~

adopted 10/7/83

## Proposed Amended Rule 466 - Pumps and Compressors

## (a) Definitions.

For the purpose of this rule:

- (1) Volatile Reactive Organic Compounds are means any chemical compounds of which contains the element carbon, which has a Reid vapor pressure (RVP) greater than 80 mm Hg (1.55 pounds per square inch), or an absolute vapor pressure (AVP) greater than 36 mm Hg (0.7 psi) at 20° C excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates and metallic carbides and excluding or carbonates, ammonium carbonate, ethane, methane, 1, 1, 1 trichloroethane, methylene chloride, and tetrafluoromethane, and chlorinated-fluorinated hydrocarbons that have a Reid vapor pressure (RVP) greater than 80 mm Hg (1.55 pounds per square inch) or an absolute vapor pressure (AVP) greater than 36 mm Hg (0.7 psi) at 20° C.
- (2) A Working day is any day of the week except Saturday or Sunday or employee holiday.
- (3) Commercial Natural Gas means a mixture of gaseous hydrocarbons, chiefly methane, of pipeline quality such as that obtained from a company licensed to dispense such gases.

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## Proposed Amended Rule 466.

## (b) Requirements

- (1) A person shall not use any pump or compressor handling ~~volatile~~ reactive organic compounds unless such pump or compressor is equipped with adequate seals in good working order or other devices of equal or greater efficiency. Such seals or devices shall be maintained so that there shall not be, during operation or during non-operation:
- (A) A leakage of more than three drops per minute.
- (B) A visible liquid mist ~~or visible indication of vapor leakage for liquids being pumped which do not condense at ambient conditions.~~
- (C) Any visible indication of leakage at or near the seal/shaft interface for gas compressors.
- (2) Any pump or compressor found to leak gaseous volatile organic compounds in excess of 10,000 ppm, measured as hexane, when measured at the potential source with a portable hydrocarbon detection instrument, shall be repaired as follows:
- (A) Any pump or compressor having an operable spare permanently connected in the system shall be shut down or the spare pump or compressor placed in service, upon discovery of the leak. Such spare devices shall be

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inspected with a portable hydrocarbon detection instrument within 48 hours after they have been placed in service. A leaking spare pump or compressor shall be repaired within fifteen working days to a leakage rate of 10,000 ppm or less. If, after repairs are completed, the gaseous leakage rate from the unit in service is greater than ~~75,000-ppm~~ {10,000 ppm after July-17-1982} when measured at the source with a portable hydrocarbon detection device, one of the following actions shall be taken:

- (i) Vent the emissions to an air pollution control device, or
- (ii) Petition the Hearing Board for a variance, or
- (iii) Repair or replace the leaking pump or compressor at the next turnaround of the process unit such that the leakage is less than 10,000 ppm. Units to be repaired or replaced at the turnaround shall be tagged to that effect, or otherwise conspicuously marked or coded in a manner easily identifiable to District personnel,

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(B) Any pump or compressor having no operable spare permanently connected in the system shall be:

- (i) Repaired within one working day of the discovery of the leak in such a manner that the leakage is minimized; and
- (ii) Repaired or replaced at the next scheduled turnaround of the process unit such that the leakage is less than 10,000 ppm.
- (iii) If, after repairs are completed, the leakage rate is greater than ~~75,000-ppm~~ {10,000 ppm after July-17-1982} then the leak shall be vented to an air pollution control device, or a petition for variance shall be submitted to the Hearing Board.

(c) Inspection Schedule

Persons subject to this rule shall:

(1) Inspect each operating pump and compressor for any visual leakage once during every 24 hours of operation, except as provided in subsections (c)(2) and (c)(3) of this rule.

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- (2) Inspect each operating pump and compressor less than three miles from a continuously manned control center for any visual leakage once during every eight-hour period.
  - (3) Inspect each pump used in crude oil production and pipeline transfer for any visible leakage once each week.
  - (4) Inspect each pump annually and each compressor quarterly with a portable hydrocarbon detection instrument for gaseous leaks of VOC in excess of 10,000 ppm measured as hexane at the potential source, however, the actual measurement shall be performed per subsection (f)(2).
  - (5) Reinspect and repair at the end of six months those pumps of subsection (b)(2)(A) found to be leaking at the annual inspection.
- (d) Exemptions
- (1) The provisions of this rule shall not apply to any pump or compressor which:
    - (A)(1) ~~Has a driver of less than one (1) horsepower or equivalent rated energy or to any pump or compressor operating~~ Operates at temperatures in excess of 260° C (500° F).
    - (B)(2) Is vented to an air pollution control system.

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- (C)(2) Is shut down and tagged or logged for maintenance.
  - (4) ~~Is regulated by Rule 1006.~~
  - (D)(5) Handles liquids or gases with a VOC content of 20 percent or less, water content of 80 percent or greater.
  - (E) Handles liquids or gases with a hydrogen composition of 80 percent or greater.
  - (F) Handles commercial natural gas exclusively.
  - (G)(6) Incorporates dual seals with seal oil barriers, or an equivalent design approved by the Executive Officer, provided that the gases emitted from the seal oil reservoir or vented to the atmosphere are in compliance with the requirements of section (b)(2).
- (2) The provisions of section (b)(2) of this rule shall not apply to:
- (A) Any reciprocating pump used in crude oil production and pipeline transfer, ~~to be exempt from the provisions of section (b)(2) of this rule~~
  - (B) Any pump or compressor which has a driver of less than one (1) horsepower or equivalent rated energy.



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(e) Recordkeeping

Each operator of a pump or compressor shall maintain records of inspections required by section (c)(4) in a manner specified by the Executive Officer.

(f) Measurement Requirements

(1) The portable detection instruments used for the measurement of gaseous volatile reactive organic compounds shall be equated to calibrating with hexane while sampling at one liter per minute.

(2) ~~Actual measurement of gaseous leakage rates may be conducted within a distance of three inches from the potential source, using a concentration versus distance relationship specified by the Executive Officer.~~

Measurement of gaseous leakage rates shall be conducted:

(A) At a distance of one centimeter from the source, or

(B) As an alternative, the following concentration versus distance relationships may be used at the operator's option where the one centimeter distance is unsafe or impractical:

<u>Requirement</u> <u>at 1 Cm</u>	<u>Equivalent Concentration PPM at</u>			
	<u>2 Cm</u>	<u>3 Cm</u>	<u>4 Cm</u>	<u>5 Cm</u>
<u>10,000</u>	<u>6,000</u>	<u>4,000</u>	<u>2,000</u>	<u>1,000</u>
<u>50,000</u>	<u>28,000</u>	<u>16,000</u>	<u>9,000</u>	<u>5,000</u>

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Where an alternative distance from the source is used, the Executive Officer may require that the reason for the increased distance be verified and that the alternative distance be recorded for the specific pump or compressor, and, further, that such distance be used for all subsequent concentration measurements for the specific pump or compressor.

~~(g) - Effective Dates~~

~~The provisions of section (b)(2) shall become effective on July 17, 1981.~~

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Amended Rule 466.1 - Valves and Flanges

(a) Definitions

For the purpose of this rule:

- (1) A Valve is defined as any device that regulates the flow of fluid in a piping system by means of an external actuator acting to permit or block passage of fluid including the attached flange and the flange seal.
- (2) Commercial Natural Gas is a mixture of gaseous hydrocarbons, chiefly methane, used as a fuel and obtained from a company licensed to dispense such gases.
- (3) Background is defined as the ambient concentration of volatile organic compounds determined at least three (3) meters upwind from the valve or flange to be inspected.
- (4) Volatile Organic Compounds are compounds of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, ethane, methane, 1,1,1 trichloroethane, methylene chloride and trichlorotrifluoroethane, that have a Reid vapor pressure greater than 80 mm Hg (1.55 pounds per square inch), or an absolute vapor pressure (AVP) greater than 36 mm Hg (0.7 psi) at 20°C.

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- (5) A Working Day is any day of the week except Saturday or Sunday or employee holiday.
- (6) A Refinery is an establishment that processes petroleum as defined in Standard Industrial Classification Manual as Industry No. 2911 Petroleum Refining.
- (7) A Flange is defined as a projecting rim on a pipe or piping component used to attach it to another piping detail.
- (8) A Leak is defined as:
- (A) The dripping of liquid volatile organic compounds; or at a rate of more than three drops per minute; or
  - (B) The detection of gaseous volatile organic compounds in excess of ~~10,000-3,000~~ 10,000 ppm above background when measured at the source as hexane ~~above-background-when-measured within-one-centimeter-of-the-potential-source~~ with a portable hydrocarbon detection instrument.
- (9) A Chemical Plant is any plant producing organic chemicals and/or manufacturing products by organic chemical processes.

(b) Requirements

- (1) The operator of a refinery or chemical plant is

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subject to the provisions of this rule and is responsible for performing the required inspections. Each operator shall, no later than 60 days after the date of adoption of this rule, submit a management plan detailing the component inspection sequence and the schedule for the inspection program to be conducted by the operator at the refinery or chemical plant.

- (2) Each valve or flange in a petroleum refinery or chemical plant handling volatile organic compounds shall be inspected in accordance with paragraph (c). Any such valve or flange found to leak shall be repaired in accordance with paragraph (d).
- (3) Each valve located at the end of a pipe or line containing volatile organic compounds, shall be sealed with a blind flange, plug, or cap when not in use, except:
  - (A) A valve on a product sampling line;
  - (B) A safety pressure relief valve;
  - (C) A bleeder valve in a double block and bleeder valve system.
- (4) Each valve which has been discovered to leak in accordance with the definition of paragraph (a)(8) shall be affixed with a record of inspections for the succeeding twelve-month period. Alternative methods of recordkeeping may be used, including the

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maintenance of records in a centralized location, provided that prior approval of the Executive Officer has been obtained.

- (5) Any valve or flange in excess of one valve or flange per day, found to leak by District personnel within five days of after the scheduled inspection of subsection (b)(1) shall constitute a violation of this rule if:

- (A) the liquid leakage exceeds three drops per minute, or
- (B) the measured volatile organic concentration at the source exceeds 75,000 ppm measured at within one centimeter of the source as hexane above background.

(c) Inspection

- (1) All valves handling volatile organic compounds shall be inspected for leaks according to the following schedule:

- (A) All valves used in any refinery shall be inspected once between January 1, 1979 and June 30, 1979 and once between July 1, 1979 and December 31, 1979.
- (B) All valves used in any chemical plant shall be inspected once between July 1, 1979, and December 31, 1979, and once between January 1, 1980, and June 30, 1980.

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(C) After January 1, 1980, all valves used in any refinery shall be inspected annually except as provided in subparagraph (c)(1)(E).

(D) After June 30, 1980, all valves used in any chemical plant shall be inspected annually except as provided in subparagraph (c)(1)(E).

(E) In addition to the annual inspection in subparagraph (c)(1)(C) and (c)(1)(D), each valve found to leak shall be reinspected three months after repair of such leak. Valves found to be leaking at the three months' reinspection shall be repaired and reinspected after 30 days. Valves found to be leaking after the 30 day reinspection shall be repaired and reinspected at intervals of one-half the prior interval, except no valve need be inspected more frequently than once per day.

(2) Process piping flanges shall be inspected annually.

~~(2) The inspection shall be accomplished by sampling with an appropriate analyzer for vapor and examining visually for liquid.~~

~~(3)~~ Continuous monitoring flammable gas detection devices which send a visual or audible signal when a leak occurs, may, with the approval of the

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Executive Officer, be substituted for periodic inspections using leak detection equipment in applicable facilities or parts of facilities.

(d) Repair

(1) ~~Each leaking valve or flange shall be repaired within two working days after detection of such leak, except as provided in subparagraph (d)(2).~~

The repairs will be such that:

(A) There is no dripping of liquid volatile organic compounds, ~~or~~ at a leakage rate exceeding three drops per minute, or

(B) No concentration of gaseous volatile organic compounds in excess of ~~1,000-3,000~~ 10,000 ~~10,000~~ ppm above background are detected when measured ~~within one centimeter of the leak~~ at the source with a portable hydrocarbon detection instrument.

~~(2) For each valve or flange found to be leaking that cannot be brought into compliance with subsections (d)(1) without requiring the shutdown of essential refinery or chemical plant operations or if such repair operations will cause substantial emissions of volatile organic compounds, the following action shall be taken:~~

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(A) If, after repairs are completed, the leak rate is less than 10 drops per minute or has a detectable hydrocarbon emission of less than 3,000 ppm but more than 1,000 ppm above background as measured within five centimeter from the source:

(i) Within two working days of discovery of non-repairability, the Executive Officer shall be given notice of the date the valve will be repaired.

(ii) Within two working days of repair, the Executive Officer shall be notified of the date of repair.

(iii) Emissions of such leak shall be measured monthly until such valve is returned to a no-leak condition.

(iv) Repairs to bring such valve to a no-leak condition shall be completed within six months.

(2)(B) If, after repairs are completed, the leak rate is ten drops per minute or greater than three



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drops per minute or the detectable hydrocarbon-emissions gaseous volatile organic compound are 3,000 ~~10,000-3,000~~ 10,000 ppm or greater measured within-five-one centimeters-of at the source, one of the following actions will be taken:

(A)~~(i)~~ Emergency repairs shall be made to reduce the emission rate to the rate stated in ~~(d)(2)(A)~~ (a)(8)(A) and (a)(8)(B); or and-such valve-shall-be-subject-to-the provisions-of-(d)(2)(A);-or

(B)~~(ii)~~ The emissions from the leak shall be vented into an approved air pollution control device, or

(C)~~(iii)~~ A petition for a variance shall be filed on the next working day.

(3) The persons complying with the provisions of the rule shall be exempt from the provisions of Rule 430 insofar as the provisions of Rule 430 would apply to leaking valves or flanges.

(e) Measurement Requirements

(1) The instruments used for the measurement of gaseous volatile organic compounds shall be equated to

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calibrating with methane hexane and sampling at one liter per minute.

- (2) Actual measurement of gaseous leakage rates may be conducted within a distance of two inches from the potential source using a concentration versus distance relationship specified by the Executive Officer.

(f) Recordkeeping

Persons subject to this rule shall:

- (1) Maintain records of inspections of valves for one year.

(A) With the approval of the Executive Officer, inspection records by operational system or plant area will be adequate to demonstrate compliance with annual inspection requirements.

(B) Annual inspection records for the continuous monitoring equipment described in subparagraph (c)(3) shall not be required, provided that records are maintained for out-of-tolerance conditions as indicated by the monitoring equipment.

- (2) Make inspection records available for review to the Executive Officer upon request.

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~~(3) From January 1, 1979 to December 31, 1980 for any refinery; and from July 1, 1979, to June 30, 1980, for any chemical plant; records of emissions from valves that have measured emissions of 1,000 ppm or greater after repairs are attempted will be maintained. Such records will contain the location of the valve or flange and the emission level expressed in ppm.~~

(3) Recordkeeping requirements shall not apply to the routine periodic inspection of flanges.

(g) Exemptions

(1) The provisions of this rule shall not apply to:

- (A) ~~(1)~~ Valves or flanges handling gases in which commercial natural gas is the only volatile organic compound.
- (B) ~~(2)~~ All valves or flanges which are located in areas which make inspection infeasible or unsafe for personnel provided that prior concurrence of the Executive Officer has been obtained.
- (C) ~~(3)~~ Valves or flanges handling gases with a hydrogen composition of 80 percent or greater.
- (D) ~~(4)~~ Valves or flanges exclusively handling materials regulated by Rule 1005.

5/2/80

~~(2) The provisions of subsection (b)(5) shall not apply to valves and flanges which have been discovered to be leaking by the operator, and which are scheduled for repair as evidenced by logging for repair action or issuance of a work order or repair ticket, or equivalent, provided such repair is completed within no later than five working days after discovery of the leak.~~

(h) Effective Dates

- (1) The owner or operator of any refinery shall comply with the requirements of paragraph (b)(3) no later than January 3, 1979.
- (2) The owner or operator of any chemical plant shall comply with the requirements of paragraph (b)(3) no later than July 4, 1979.
- (3) The owner or operator of any chemical plant or refinery shall comply with the requirements of paragraph (b)(5) no later than April 1, 1980, this rule 60 days from the date of adoption.

SCADMD  
sholpr

5/20/82

January 12, 1982

3-5-82

Adopted  
Proposed Amended Rule 467 - Safety Pressure Relief Valves Devices

(a) Definitions

For the purpose of this rule:

- (1) A Pressure Relief Valve (PRV) is an automatic pressure relieving device actuated by static pressure upstream of the device.
- (2) A Rupture Disc is a diaphragm held between flanges for the purpose of isolating a volatile organic compound from the atmosphere or from a PRV located downstream.
- (3) A Pressure Relief Device is either a PRV or a rupture disc.
- (4) A Volatile Organic Compound is any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, methane, 1,1,1 trichloroethane, methylene chloride, and trichlorotrifluoroethane, that has a Reid vapor pressure (RVP) greater than 80mm Hg (1.55 pounds per square inch), or an absolute vapor pressure (AVP) greater than 36mm Hg (0.7 psi) at 20°C.
- (5) A Working Day is any day except Saturday or Sunday or employee holiday.
- (6) A Leak is:
  - (A) The dripping of liquid volatile organic compounds at a rate of more than three drops per minute, or
  - (B) An indication of gaseous volatile organic compounds in excess of 10,000 ppm above background when measured at the source with a portable hydrocarbon detection instrument.

- (7) Background is the ambient concentration of volatile organic compounds determined at least three (3) meters upwind from the pressure relief device to be inspected.
- (8) A Refinery is an establishment that processes petroleum as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining.
- (9) A Chemical Plant is any plant producing organic chemicals and/or manufacturing products by organic chemical processes.
- (10) Thermal protection means protection from overpressure due to variation in atmospheric temperature or other external heat.

(b) General Requirements

The operator of a refinery or chemical plant shall not use any safety pressure relief valve device on any equipment handling volatile organic compounds materials above 776mm-Hg (15-pounds-per-square-inch)-absolute-pressure unless the safety pressure relief valve device is vented to a vapor recovery or disposal system; protected by a ruptured disc; or is maintained by an inspection system approved by the Air Pollution Control Officer; or inspected and maintained in accordance with the requirements of this rule.

The provisions of this rule shall not apply to any safety pressure relief valve of 2.5-centimeters (1-inch)-pipe-size or less.

(c) Inspection Requirements

- (1) Visually inspect each PRV on each working day.
- (2) Inspect each pressure relief device handling volatile organic compounds quarterly with a portable hydrocarbon detection instrument, except that after four quarterly inspections in which no leakage is

detected the inspection frequency shall be annually. Detection of a leak shall cause the inspection frequency to revert to quarterly after repairs are completed.

- (3) Where both a rupture disc and a PRV are used in series, the downstream device shall be inspected.
- (4) When a pressure relief device is known to have relieved, such device shall be subjected to an additional inspection with a portable hydrocarbon detection instrument within 15 working days of the date of the known pressure relief.
- (5) Inspect each pressure relief device removed from service for repair within 15 working days of the device's return to service.
- (5) Pressure relief devices which are found to be leaking and which are tagged or logged for repair at the turnaround need not be reinspected before the turnaround.

(d) Maintenance Requirements

Any pressure relief device determined to be leaking shall be:

- (1) Repaired within 15 days of the discovery of the leak to a no-leak condition, or
- (2) Repaired or replaced at the next scheduled turnaround of the process unit if the pressure relief device cannot be isolated for maintenance without shutdown of the process unit.
- (3) A leak shall not be subject to this section if the operator shows to the satisfaction of the Executive Officer that without the contribution of ethane and/or any compound which is not a VOC, the criterion for a leak would not be met.

(e) Recordkeeping

- (1) Each operator of a pressure relief device shall maintain records of inspections required by sections (c)(2), (c)(4), and (c)(5) in a manner approved by the Executive Officer.
- (2) Pressure relief devices which have been observed to leak shall be tagged for repair or shall be logged for repair in a central repair action log for the process unit.

(f) Measurement Requirements

- (1) The instruments used for the measurement of gaseous volatile organic compounds shall be equated to calibrating with hexane while sampling at one liter per minute.
- (2) Inspection sampling shall be performed at the center of the exhaust stack for a valve and at the center of the leakage path for other devices.

(g) Exemptions

- (1) Pressure relief devices which are located such that their inspection would present a safety hazard to personnel.
- (2) Pressure-vacuum vent valves on storage tanks.
- (3) The functional operation of a pressure relief device to relieve an overpressure condition.
- (4) Pressure relief devices of one inch size or less which are installed for thermal protection.

(h) Effective Date

The provisions of this rule shall become effective on July 1, 1982. The provisions of Rule 467 as adopted on May 7, 1976, shall remain in effect until July 1, 1982.



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.~~

~~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.

8/2/76

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).

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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.

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, fibrous 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.

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## Rule 701. General

This regulation sets forth the actions to be taken by industry, business, commerce, educational institutions, government and the public to prevent air pollution concentrations from reaching levels which could endanger or cause significant harm to the public, or to abate such concentrations should they occur.

The Executive Officer shall maintain air monitoring stations throughout the District so that air quality can be monitored on a continuing basis and air pollution episodes can be measured or predicted. Summaries of daily air monitoring data will be available to the public, press, radio, television, and other mass media of communication.

Both stationary source curtailment plans and traffic abatement plans shall be prepared by industrial, business, commercial, educational institutions, and governmental establishments, including non-profit corporations which meet the applicable requirements. The contents of such plans shall be as specified in Rule 708. Those plans shall be implemented as specified in Rules 709, 710, 711, and 712. A list of source/receptor areas and their boundaries shall be maintained at the District Headquarters and shall be available to the public.

Since traffic abatement plans and most stationary source curtailment plans require several hours of lead time for proper implementation, the Executive Officer shall announce the prediction declaration of an episode not later than ~~4:30 p. m.~~ 2:00 p. m. (4:30 p. m. for sulfate portion of oxidant/sulfate episode) of the day before the episode is predicted to occur. Those establishments with plans will receive such notices over the radio communication system required by Rule 707.

The public shall be notified through the press, radio, television, and other mass media of communication of episodes and asked to participate in abatement actions.

~~Rule 702. Definitions~~

~~For the purpose of this regulation, the following definitions apply:~~

- ~~(a) APCO Executive Officer means the Executive Officer of the South Coast Air Quality Management District. (SCAQMD.)~~
- ~~(b) Fleet Vehicles are gasoline-powered 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.~~
- ~~(c) Source/Receptor Areas. A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are~~



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702(w)(d)(e)  
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(i)

~~Since traffic abatement plans and most stationary source curtailment plans require several hours of lead time for proper implementation, the Executive Officer shall announce the prediction declaration of an episode not later than ~~4:30 p. m.~~ 2:00 p. m. (4:30 p. m. for sulfate portion of oxidant/sulfate episode) of the day before the episode is predicted to occur. Those establishments with plans will receive such notices over the radio communication system required by Rule 707.~~

~~The public shall be notified through the press, radio, television, and other mass media of communication of episodes and asked to participate in abatement actions.~~

#### Rule 702. Definitions

For the purpose of this regulation, the following definitions apply:

(a) APCO Executive Officer means the Executive Officer of the South Coast Air Quality Management District. (SCAQMD.)

~~(b) Fleet Vehicles are gasoline-powered 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.~~

(c) Source/Receptor Areas. A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are

~~measured. Such source and receptor areas shall be based on air monitoring, geographical and meteorological factors. Any of the areas can be a source area, a receptor area or both a source and receptor area. The source/receptor areas are delineated on the attached map.~~

(d) A Major National Holiday means a holiday such as Christmas or New Year's Day ~~or Independence Day.~~

(e) ~~Oxidant~~ Ozone/Sulfur Dioxide means oxidant in combination with sulfur dioxide.

(f) ~~Oxidant~~ Ozone/Sulfate means sulfate in combination with oxidant.

~~(g) Air Contaminant or air pollutant means 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 matter, acids or any combination thereof.~~

(h) Upset of Production means that the process throughput or production rate is reduced by more than 20 percent of normal daily operations for second stage episodes and 33 percent of normal daily operation for third stage episodes as a direct result of reducing emissions in order to comply with this regulation.

(i) Southern California Coastal Waters means that area between the California coastline and a line starting at 34.5°N, 120.5°W at the Pacific Ocean (Point Conception),

thence to 34.5°N                      121.0°W

thence to 34.0°N                      120.5°W

thence to 33.0°N                      119.5°W

thence to 32.5°N                      118.5°W

and ending at the California-Mexico border at the Pacific Ocean.

~~p. m. for sulfate portion of ozone/sulfate episode) of the day before the episode is predicted to occur. Those establishments with plans will receive such notices over the radio communication system required by Rule 707.~~

~~The public shall be notified through the press, radio, television, and other mass media of communication of episodes and asked to participate in abatement actions.~~

Rule 702. Definitions 8/15/80

For the purpose of this regulation, the following definitions apply:

~~(a) Executive Officer means the Executive Officer of the South Coast Air Quality Management District. (SCAQMD.)~~

(b) Fleet Vehicles are gasoline-powered 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. Buses, commuter vanpool vehicles or other vehicles, used exclusively for multi-passenger commuting between home and the place of work or school are excluded.

~~(c) Source/Receptor Areas. A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are measured. Such source and receptor areas shall be based on air monitoring, geographical and meteorological factors. Any of the areas can be a source area, a receptor area or both a source and receptor area. The~~

RULE 702 DEFINITIONS

For the purposes of this regulation the following definitions apply:

~~(a) AFGO means the Executive Officer of the South Coast Air Quality Management District.~~

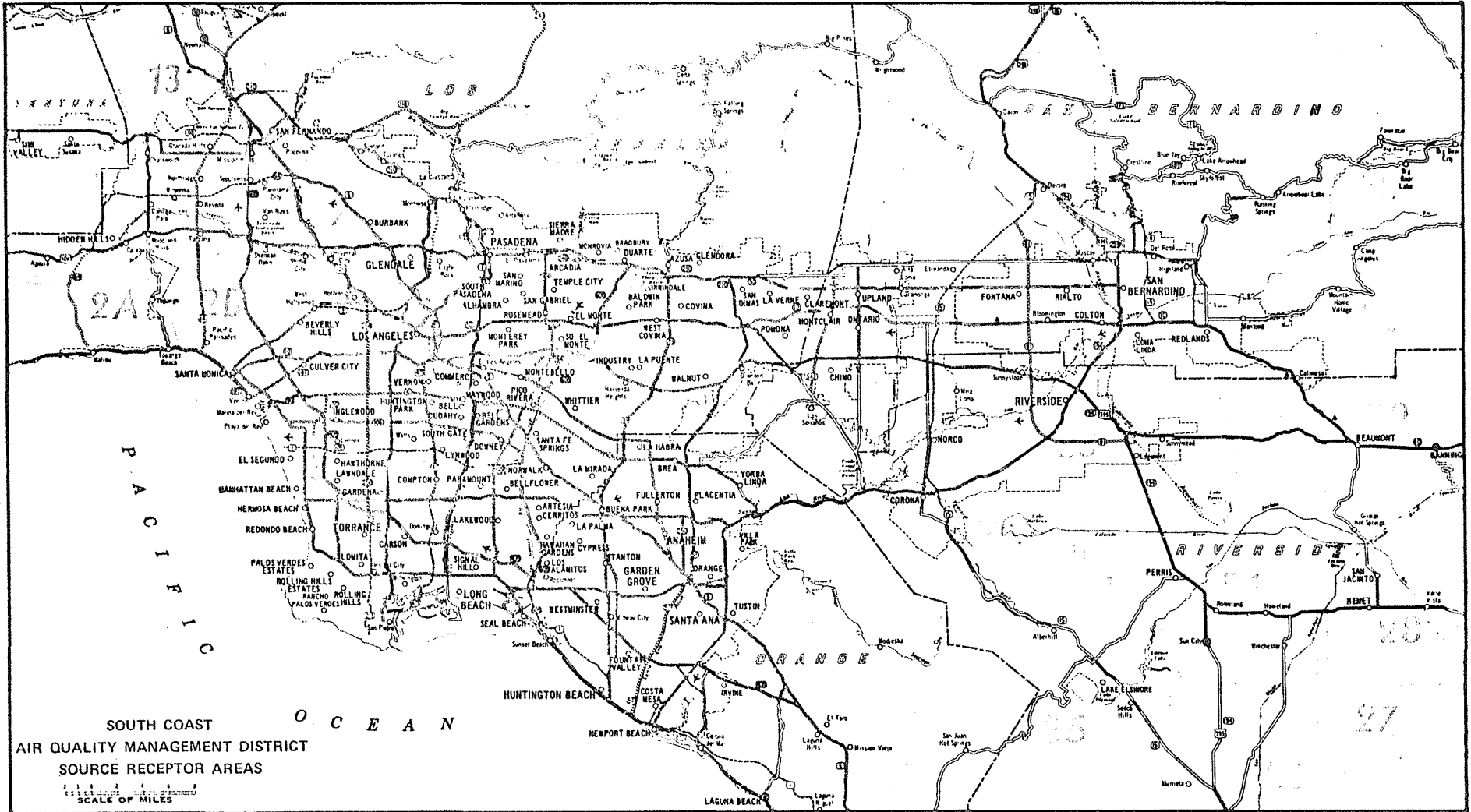
~~(b) FLEET VEHICLES are <sup>gasoline powered</sup> motor vehicles as defined by the Motor Vehicle Code Division 1, Section 415 of the State of California Vehicle Code and operated from one business address.~~

(c) SOURCE/RECEPTOR AREAS. A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are measured. Such source and receptor areas shall be based on air monitoring, geographical and meteorological factors. Any of the areas can be a source area, a receptor area or both a source and receptor area.

~~(d) A MAJOR NATIONAL HOLIDAY means a holiday such as Christmas, New Year's Day or Independence Day.~~

(e) OXIDANT/SULFUR DIOXIDE means oxidant in combination with sulfur dioxide.

~~(f) OXIDANT/SULFATE means sulfate in combination with oxidant.~~



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Rule 703. Episode Criteria

For the purpose of Regulation VII, the following episode criteria shall apply:

Contaminant	Averaging Time	Stage 1	Stage 2	Stage 3
Photochemical Ozone Oxidant (Including-Ozone)	1 Hour	.20 ppm	.35 ppm	.50 ppm
Oxidant Ozone, In Combination with Sulfur Dioxide	1 Hour	(1) .20 ppm	(1) .35 ppm	(1) .50 ppm
Carbon Monoxide	1 Hour	40 ppm	75 ppm	100 ppm for one hour and predicted for one additional hour.
Sulfur Dioxide	1 Hour 24 Hours	0.5 ppm 0.2 ppm	1.0 ppm 0.7 ppm	2.0 ppm 0.9 ppm
Ozone Oxidant in Combination with Sulfate	24 Hours (Sulfate)  1 Hour (Oxidant)  (Ozone)		25 ug/m <sup>3</sup>  0.20 ppm	

(1) These levels shall apply when the ozone oxidant concentration and the sulfur dioxide concentration each exceeds 0.10 ppm, one-hour average, and shall be determined by adding the ozone oxidant and sulfur dioxide concentration.

4/23/80

Rule 704. Episode Declaration

An attained episode shall exist whenever the APCO Executive Officer determines that any of the contaminants ~~reaches-any-of-the~~ episode criteria levels specified in Rule 703, ~~he-will-declare-the-existence-of-the~~ appropriate-episodes have been attained.

A predicted episode shall exist whenever the APCO Executive Officer determines that it is likely that any of the episode levels specified in Rule 703 will be reached during the following day. The Executive Officer shall ~~he-will-predict-that-the-episodes-will-occur-and~~ ~~will~~ announce the ~~declaration-of-the~~ predicted episodes not later than 2:00 p. m. on the day the prediction is made.

In the case of predicted

~~oxidant~~ ozone/sulfate episodes, the APCO Executive Officer will announce the ~~declaration-of-the~~ predicted ~~oxidant~~ ozone portion of the episode by 2:00 p. m. and the sulfate portion by 4:30 p. m.

Organizations required to implement a stationary source curtailment plan pursuant to Rule 708(c) based on an episode prediction, shall begin implementing the appropriate plan at midnight (12:01 a. m.) on the day for which the episode is forecast.



Organizations required to implement a Traffic Abatement Plan pursuant to Rule 708(b) based on an episode prediction, shall begin implementing the appropriate plan at a time sufficient to effect the required actions and reductions in vehicle miles driven on the day for which the episode is predicted. Such implementation shall, at a minimum, include notification of employees on the day the episode prediction announcement is received so that ridesharing arrangements can be made for the day of the episode.

~~Rule 705. Termination of Episodes~~

~~(a) The APCO shall declare the termination of an attained episode~~

~~An attained episode shall be terminated whenever the air contaminant which caused the declaration attainment of such episode has been verified by the Executive Officer to be below the episode criteria set forth in Rule 703 for the calling of such episode and the available scientific and meteorological data indicate that the concentration of such air contaminant will not immediately increase again so as to reach the standards set forth for such episodes in Rule 703.~~

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~~Organizations required to implement a Traffic Abatement Plan pursuant to Rule 708(b) based on an episode prediction, shall begin implementing the appropriate plan at a time sufficient to effect the required actions and reductions in vehicle miles driven on the day for which the episode is predicted. Such implementation shall, at a minimum, include notification of employees on the day the episode prediction announcement is received so that ridesharing arrangements can be made for the day of the episode.~~

Rule 705. Termination of Episodes

~~(a) The APCO shall declare the termination of an attained episode~~

An attained episode shall be terminated whenever the air contaminant which caused the declaration attainment of such episode has been verified by the Executive Officer to be below the episode criteria set forth in Rule 703 for the calling of such episode and the available scientific and meteorological data indicate that the concentration of such air contaminant will not immediately increase again so as to reach the standards set forth for such episodes in Rule 703.

When an attained episode is terminated but an episode is predicted for the next day, affected organizations with stationary source curtailment plans will be required to continue abatement actions between successive episodes.

~~(b) The APCO shall declare the termination~~

A predicted episode shall be terminated whenever the available scientific and meteorological data indicate that it is no longer likely that the air contaminant(s) that caused the prediction of the episode will reach or exceed the criteria set forth in Rule 703.

~~(c) The APCO Executive Officer shall immediately communicate the declaration or the termination of the episode in the manner provided in Rule 706.~~

~~Rule 706. Episode Notification~~

~~(a) The APCO Executive Officer shall notify the following whenever an episode is predicted, attained, or terminated.~~

~~(1) The California Air Resources Board.~~

~~(2) Local and state law enforcement agencies.~~

~~(3) Public safety personnel, who have responsibilities~~

~~for or interests in air pollution control.~~

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~~When an attained episode is terminated but an episode is predicted for the next day, affected organizations with stationary source curtailment plans will be required to continue abatement actions between successive episodes.~~

~~(b) The APCO shall declare the termination~~

~~A predicted episode shall be terminated whenever the available scientific and meteorological data indicate that it is no longer likely that the air contaminant(s) that caused the prediction of the episode will reach or exceed the criteria set forth in Rule 703.~~

~~(c) The APCO Executive Officer shall immediately communicate the declaration or the termination of the episode in the manner provided in Rule 706.~~

#### Rule 706. Episode Notification

(a) The APCO Executive Officer shall notify the following whenever an episode is predicted, attained, or terminated.

- (1) The California Air Resources Board.
- (2) Local and state law enforcement agencies.
- (3) Public safety personnel, who have responsibilities for or interests in air pollution control.

- (4) Establishments that must file curtailment plans.
    - (5) The news media.
    - (6) SCAQMD personnel.
    - (7) Local public health officials and hospitals.
    - (8) School officials.
    - (9) Appropriate elected officials.
  - (10) Adjacent APCD's not within the same air basin but in which the State Emergency Plan is applicable.  
(Applies only for Stage Two, Stage Three, and Sulfate episodes).
- (b) The notice of ~~declaration~~ of an episode shall include the following:
- (1) Stage level and predicted duration.
  - (2) ~~Estimated-boundary-of-affected-area.~~ The affected source and receptor areas.
  - (3) Contaminants for which the episode is declared.
- (c) Those establishments that must submit emergency plans to the APCD Executive Officer will be notified over the radio communication system required by Rule 707 of the prediction, attainment and termination of episodes. When a first or second stage episode is predicted or attained, those establishments with approved plans will be notified to implement the actions specified for the episode stage and contaminant.
- For third stage episodes, emergency plans will only be implemented upon the Governor's declaration of an air pollution disaster or state of emergency.

~~radio communication system required by Rule 707 of the prediction, attainment and termination of episodes. When a first or second stage episode is predicted or attained, those establishments with approved plans will be notified to implement the actions specified for the episode stage and contaminant.~~

~~For third stage episodes, emergency plans will only be implemented upon the Governor's declaration of an air pollution disaster or state of emergency.~~

Rule 707. Radio-Communication System 8/15/80

The Executive Officer shall install and maintain, in continuous operation, a radio transmitter with selective calling facilities for the purpose of broadcasting episode announcements, information and instruction which may be appropriate to carry out the provisions of this regulation.

Upon request of the Executive Officer, persons operating any facility or activity named in Rules 708.1 and 708.3 shall install, properly maintain and operate during normal business hours, (normal school hours for schools), radio-receiving equipment with decoding device capable of receiving broadcasts from the Executive Officer of episode announcements, information, and instructions.

For school districts or other organizations operating at more than one location within the South Coast Air Quality Management District, one radio receiver located at the organization's headquarters or other specified facility will suffice, provided that the organization agrees, in writing, to

be responsible for relaying the contents of episode messages to all of its locations and provided such messages are relayed in a timely manner as necessary for plan implementation.

Radio-receiving equipment required by this rule must be obtained and in operation within ninety (90) days after receiving written notice of approval of plans or within such additional time as the Executive Officer may specify in writing. Such radio-receiving equipment must be monitored during normal business hours or during the period the activity specified in Rules 708.1 or 708.3 is in operation. (Normal school day for schools.)

The Executive Officer may exempt any geographic area or facility from the requirements of Rule 707 when acceptable alternative means of communication are available.

~~Rule 708. Plans <sup>8/15/80</sup>~~

~~(a) Definitions:~~

- ~~(1) A "Stationary Source Curtailment Plan" is a plan to reduce the emissions of stationary sources as needed to lower the concentrations of ozone, sulfur dioxide and ozone/sulfate.~~
- ~~(2) A "Traffic Abatement Plan" is a plan which will reduce the emissions from the use of motor vehicles as needed to lower the concentration of ozone and carbon monoxide. Planned reductions in motor vehicle use shall be achieved with respect to episode stages as follows:~~

~~be responsible for relaying the contents of episode messages to all of its locations and provided such messages are relayed in a timely manner as necessary for plan implementation.~~

Radio-receiving equipment required by this rule must be obtained and in operation within ninety (90) days after receiving written notice of approval of plans or within such additional time as the Executive Officer may specify in writing. Such radio-receiving equipment must be monitored during normal business hours or during the period the activity specified in Rules 708.1 or 708.3 is in operation. (Normal school day for schools.)

The Executive Officer may exempt any geographic area or facility from the requirements of Rule 707 when acceptable ~~alternative means of communication are available.~~

Rule 708. Plans 8/15/80

(a) Definitions:

- (1) A "Stationary Source Curtailment Plan" is a plan to reduce the emissions of stationary sources as needed to lower the concentrations of ozone, sulfur dioxide and ozone/sulfate.
- (2) A "Traffic Abatement Plan" is a plan which will reduce the emissions from the use of motor vehicles as needed to lower the concentration of ozone and carbon monoxide. Planned reductions in motor vehicle use shall be achieved with respect to episode stages as follows:



- (A) Stage 1 - use of carpooling.
  - (B) Stage 2 - extensive carpooling and use of mass transportation.
  - (C) Stage 3 - operate as though the day were a major national holiday and the emergency reduction in public use of vehicles.
- (b) The Executive Officer shall order the implementation of the appropriate "Traffic Abatement Plan" for the predicted episode stage with respect to ozone, ozone/sulfur dioxide and carbon monoxide. For ozone/sulfate episodes, the appropriate "Traffic Abatement Plan shall be implemented. For third stage episodes, traffic abatement plans will only be implemented upon the governor's declaration of an air pollution disaster and a state of emergency.
- (c) The Executive Officer shall order the implementation of the appropriate "Stationary Source Curtailment Plan" as follows:
- (1) For predicted first, second, or third stage ozone episodes, the ozone plan for that stage shall be implemented.
  - (2) For predicted first, second, or third stage ozone/sulfur dioxide episodes, the ozone and sulfur dioxide plans for that stage shall be implemented.
  - (3) For attained (not predicted) first, second, or third stage ozone/sulfur dioxide episodes,

the sulfur dioxide plan for that stage shall be implemented.

- (4) For either predicted or attained first, second, or third stage sulfur dioxide episodes, the sulfur dioxide plan for that stage shall be implemented.
- (5) For predicted (not attained) ozone/sulfate episodes, the appropriate stage ozone plans and the second stage sulfur dioxide plans shall be implemented.

For third stage episodes, stationary source curtailment plans will only be implemented upon the governor's declaration of an air pollution disaster and a state of emergency.

- (d) Plans shall be submitted to the Executive Officer in accordance with Rules 708.1 and 708.3.
- (e) Any person listed in 708.1 shall submit a stationary source curtailment plan. Any person listed in 708.3(a) or (c) must submit a traffic abatement plan. Persons listed in Rules 708.1 and 708.3(a) or (c) shall submit plans for stationary source curtailment and traffic abatement.

~~Rule 708.1. Stationary Sources Required to File Plans~~

~~Following written notice by the Executive Officer, the owner or operator of any governmental, industrial, business or commercial activity listed below shall submit to the~~

6/1/77

RULE 708.1 STATIONARY SOURCES REQUIRED TO FILE PLANS

Following written notice by the APCO, the owner or operator of any governmental, industrial, business or commercial activity listed below shall submit to the APCO plans to curtail or cease operations causing stationary source air contaminants in such activity.

- (a) Petroleum refinery.
- (b) Bulk Petroleum product loading facility for tank vehicles, tank cars or marine vessels, from which facility 75,200 liters (20,000 gallons) or more of petroleum products are loaded or off loaded per day. For the purpose of this paragraph "petroleum product" means any petroleum product having a Reid vapor pressure of 78 millimeters of mercury (1.5 pounds per square inch) or greater. "Facility" means all petroleum product loading equipment which is both:
  - (1) possessed by one person, and (2) located on one premise.
- (c) Asphalt saturator.
- (d) Asphalt-paving manufacturing plant.
- (e) Asphalt manufacturing plant.
- (f) Chemical plant which:
  - (1) Reacts or produces any organic liquids or gases.
  - (2) Produces sulfuric acid, nitric acid, phosphoric acid or sulfur.
- (g) Paint, enamel, lacquer or varnish manufacturing plant in which 37,850 liters (10,000 gallons) or more per month of organic solvents, diluents or thinners, or any combination thereof, are combined or manufactured into paint, enamel, lacquer or varnish.

RULE 708.1 (Cont.)

- (h) Rubber-tire manufacturing or rubber-reclaiming plant.
- (i) Automobile-assembly or automobile-body plant.
- (j) Metal-melting plant requiring molten metal temperatures in excess of 540°C (1000°F) or metal-refining plant or metal-smelting plant. This subparagraph applies only to a plant in which a total of 1135 kilograms (2,500) pounds or more of metal are in a molten state at any one time or are poured in any one hour.
- (k) Rock-wool manufacturing plant.
- (l) Glass or frit manufacturing plant in which a total of 1815 kilograms (4,000 pounds) or more of glass or frit or both are in a molten state at any one time or are poured in any one hour.
- (m) Fossil fuel-fired electric generating facility having a total rated capacity of 50 megawatts or more. Any unfired electrical generating facility whose energy is exclusively supplied by waste heat from another facility shall be exempt from submitting a stationary source plan.
- (n) Container manufacturing or decorating plant in which 3785 liters (1,000 gallons) or more per month of organic solvents, diluents or thinner, or any combination thereof, are consumed.
- (o) Fabric dry-cleaning plant in which 3785 liters (1,000 gallons) or more per month of organic solvents are consumed.
- (p) Printing plant with heated-oven enclosure(s) and consuming more than 454 kilograms (1,000 pounds) per day of ink containing organic solvents.
- (q) Any facility or plant emitting 91 metric tons (100 tons) or more per year of any single contaminant.
- (r) Any other governmental, industrial, business establishment or

RULE 708.2 CONTENT OF STATIONARY SOURCE CURTAILMENT PLANS

U/4/7-

The plans required by Rule 708.1 shall include:

(a) General Requirements

- (1) A list of sources of hydrocarbons, nitrogen oxides and sulfur oxides. The list must contain the AQMD Permit Number or the daily amount of contaminants discharged and a statement of the minimum time and recommended time to implement the abatement actions for each episode stage for each facility and source. Such actions shall be consistent with the provisions of Rule 708.4 (c).
- (2) The total number of employees at the facility during each shift:
  - (A) On a normal weekday.
  - (B) On a major national holiday.
- (3) The total number of employees at the facility:
  - (A) On a normal weekday.
  - (B) On a major national holiday.
- (4) The normal amount of energy (gas, fuel oil and electricity) used:
  - (A) On a normal weekday.
  - (B) On a major national holiday.
- (5) The actions to brief employees on the actions expected of them in the event of a declaration of first, second, or third stage episodes.
- (6) The name and telephone numbers of the episode action coordinator and alternate. The name and telephone number of the official responsible for implementation of the plan.

RULE 708.2 (a) (Cont.)

- (7) The reductions in fuel oil, gas and electrical consumption at each episode stage. Such reductions to be carried out to the extent feasible.
- (8) For first-stage episodes, the measures to voluntarily curtail equipment emitting air contaminants such as paint spray booths, degreasers or other hydrocarbon emitting equipment.
- (9) For second-stage episodes:
  - (A) The measures to curtail as much as possible without upsetting production, equipment operations which emit hydrocarbons or nitrogen oxides during oxidant episodes and which emit sulfur dioxide during sulfur dioxide and sulfate episodes.
  - (B) The measures to postpone operations which can be postponed until after the episode.
  - (C) The plan must include lists of the equipment which emit the contaminants causing the episodes that will be curtailed during a second-stage episode and shall contain a brief description of the equipment, the District permit number, the percent reduction in emissions and the time it will take to attain that reduction.
- (10) For third-stage episodes:
  - (A) A list of equipment and the permit numbers of such equipment not operated on a major national holiday.
  - (B) A statement as to whether or not the facility operates on a major national holiday.

RULE 708.2 (a) (Cont.)

- (11) Other information and measures as required by the APCO to insure the maximum effectiveness in reducing air contaminants in the event of a declaration of first, second, or third-stage episodes.

(b) Specific Requirements

Such plans shall include details on the following actions:

(1) Second-Stage Oxidant Episodes:

- (A) The equipment emitting either hydrocarbons or oxides of nitrogen which will be curtailed.
- (B) The measures to eliminate the loading and off-loading of marine tankers containing petroleum products with a Reid vapor pressure of 78 millimeters of mercury (1.5 pounds per square inch) or greater.

(2) Third-Stage Oxidant Episodes:

For facilities that normally operate on a major national holiday, the measures when third-stage episode plans are in effect to:

- (A) Suspend commercial and industrial spray painting.
- (B) Suspend activities, including but not limited to roofing, asphalt paving and surface coating, where volatile organic material is involved.
- (C) The measures to shut down or severely curtail equipment emitting hydrocarbons or oxides of nitrogen.
- (D) The measures to eliminate the loading and off-loading of marine tankers containing petroleum

LE 708.2 (b)(2) (Cont.)

products with a Reid vapor pressure of 78 millimeters of mercury (1.5 pounds per square inch) or greater.

(3) First-Stage Sulfur Dioxide Episodes

- (A) The equipment emitting sulfur oxides which will be voluntarily curtailed.
- (B) The measures to curtail or postpone electrically-intensive industrial operations, where feasible.
- (C) The measures for electric utilities to import additional power from outside the basin to the extent feasible.

(4) Second-Stage Sulfur Dioxide Episodes

- (A) The additional equipment emitting sulfur oxides which will be curtailed.
- (B) For fossil fuel fired combustion sources including electric utilities with a heat input greater than 50 million BTU per hour:
  - (i) The measures to burn natural gas.
  - (ii) To the extent that natural gas is not available and up to and including December 31, 1980, the measures to burn fuel oil with a sulfur content of not more than 0.25 percent by weight or the measures to reduce sulfur dioxide emissions to an equivalent discharge.
  - (iii) To the extent that natural gas is not available after December 31, 1980, the measures to burn fuel oil with a sulfur content of not more than 0.1 percent by weight or the measures to reduce



RULE 708.2 (b) (4) (B) (iii)

sulfur dioxide emissions to an equivalent discharge. If fuel oil with a sulfur content of not more than 0.1 percent is not available, the measures to burn fuel oil with the least sulfur content available.

(iv) Any combustion source may be exempt from the provisions of subsections (b) (4) (B) (ii) and (iii) of this rule upon demonstration that fuel oil with the specified sulfur content is not available.

(C) For electric utilities the measures to:

(i) Shift oil burning power generation to non-source areas to the maximum extent consistent with the public health, safety and welfare.

(ii) Shift oil burning power generation to combined cycle gas turbine generating equipment burning fuel oil containing less than 0.15% sulfur to the maximum extent consistent with the public health, safety and welfare.

(D) For refineries and chemical plants the measures to be taken to reduce sulfur dioxide emissions by 20% without jeopardizing the public health or safety, without causing an increase in the emissions of contaminants, without damaging the equipment or without reducing production by more than 20%.

(5) Third Stage-Sulfur Dioxide Episode

For facilities that normally operate on a major national holiday:

**RULE 708.2 (b) (5)**

- (A) The equipment emitting sulfur oxides which will be shut down or severely curtailed.
- (B) For refineries and chemical plants the measures to be taken to reduce sulfur dioxide emissions by 33% without jeopardizing the public health or safety, without causing an increase in the emissions of contaminants, or without damaging the equipment.
- (C) For fossil fuel fired combustion sources including electric utilities with a heat input greater than 50 million BTU per hour:
  - (i) The measures to burn natural gas.
  - (ii) To the extent that natural gas is not available and up to and including December 31, 1980, the measures to burn fuel oil with a sulfur content of not more than 0.25 percent by weight or the measures to reduce sulfur dioxide emissions to an equivalent discharge.
  - (iii) To the extent that natural gas is not available after December 31, 1980, the measures to burn fuel oil with a sulfur content of not more than 0.1 percent by weight or the measures to reduce sulfur dioxide emissions to an equivalent discharge. If fuel oil with a sulfur content of not more than 0.1 percent is not available, the measures to burn fuel oil with the least sulfur content available.
  - (iv) Any combustion source may be exempt from the provisions of subsections (b) (5) (C) (ii)

RULE 708.2 (b) (5) (iv)

and (iii) of this rule upon demonstration that fuel oil with the specified sulfur content is not available.

(D) For electric utilities the measures to:

- (i) Shift oil burning power generation to non-source areas to the maximum extent consistent with the public health, safety and welfare.
- (ii) Shift oil burning power generation to combined cycle gas turbine generating equipment burning fuel oil containing less than 0.15% sulfur to the maximum extent consistent with the public health, safety and welfare.

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Rule 708.2 (Cont'd.)

(Amended April 4, 1980)

~~extent consistent with the public health, safety and welfare.~~  
 (ii) ~~Shift oil burning power generation to combined cycle gas turbine  
 generating equipment burning fuel oil containing less than 0.15% sulfur to  
 the maximum extent consistent with the public health, safety and welfare.~~

Transportation Management

Rule 708.3.

Traffic Abatement Plans

(Adopted May 6, 1977)  
(Amended April 7, 1978)(Amended April 4, 1980)  
(Amended July 11, 1980)

*Amended*  
7-9-82

- (a) Following written notice by the Executive Officer, the owner or operator of any governmental, industrial, business, commercial, educational institution, or other activity listed below shall submit to the Executive Officer plans to curtail or cease operations causing air contaminants from vehicle use.
  - (1) Operators of 50 or more fleet vehicles.
  - (2) Governmental agencies, educational institutions, industrial, commercial business, or other establishments employing more than 100 persons per shift at one business address; and any other establishments specified by the Executive Officer.
- (b) The plans required by Rule 708.3(a) shall include:
  - (1) The total number of employees at the facility during each shift:
    - (A) On a normal weekday.
    - (B) On a major national holiday.
  - (2) The total number of employees at the facility:
    - (A) On a normal weekday.
    - (B) On a major national holiday.
  - (3) The number of motor vehicles and vehicle miles-traveled for motor vehicles operated:
    - (A) By the company on company business on a normal weekday and on a major national holiday.
    - (B) By employees commuting from home to the place of business on a normal weekday and on a major national holiday.
  - (4) The number of parking spaces:
    - (A) Available
    - (B) Normally used on a weekday
    - (C) Normally used on a major national holiday
  - (5) The minimum number of motor vehicles to be operated that are necessary to protect the public health or safety.
  - (6) The actions to brief employees on the actions expected of them in the event of a declaration of a first, second or third stage episode.
  - (7) The name and telephone numbers of the episode action coordinator and alternate. The name and telephone number of the official responsible for implementation of the plan.
  - (8) For first stage episodes:  
 The methods by which employers will encourage the establishment of permanent voluntary carpools or otherwise reduce employee motor vehicle travel. Within 90 days of receiving the notice to submit a plan, under the provisions of Rule 708.3(a), the employer shall report to the Executive Officer the mileage reduction methods and the estimated reduction in mileage as a result of the requirements of this

subsection

(9) For second stage episodes:

(A) Measures within the reasonable control of the employer to reduce the number of vehicle miles driven by employees in commuting to and from work by the implementation of an established ridesharing program. Such ridesharing program shall, as a minimum, include:

- (i) A description of the ridesharing program, and
- (ii) methods or measures to inform employees on the ridesharing program, and
- (iii) methods used to annually update the ridesharing program, and
- (iv) methods used to monitor effectiveness of ridesharing program, and
- (v) methods to include new employees into the ridesharing program, and
- (vi) methods to measure effectiveness of ridesharing program, and
- (vii) other methods approved by the Executive Officer such as:

(I) A significant reduction of available parking places as an incentive to ridesharing or

(II) Provisions for temporary mass transportation and

(viii) An estimate of the reduction in vehicle miles driven as a result of the above measures shall be submitted with the plan.

(B) The measures to decrease the operation of fleet vehicles and an estimate of the reduction of miles driven. Up to 20 percent reduction from normal daily operation is required.

(10) For third stage episodes:

(A) For organizations normally operating on a major national holiday, measures within the reasonable control of the employer to reduce the number of vehicle miles driven by employees in commuting to and from work. The goal of such measure is to reduce employee vehicle miles driven by 65-75 percent. Such measures shall include those outlined in Rule 708.3(b)(9)(A). The measures to decrease the operation of fleet vehicles and an estimate of the reduction of miles driven. Up to 20 percent reduction in fleet vehicle miles from normal daily operation is required.

(B) For organizations normally closed on any major national holiday, the measures to operate as if the day were a major national holiday. Minimal staffing for security and required public information assistance may be provided.

(c) School District Traffic Abatement Plans

Following written notice by the Executive Officer, the persons responsible for administering a school district shall submit to the Executive Officer plans for traffic abatement during air pollution episodes.

(1) The plans required by Rule 708.3(c) shall include:

- (A) The name and location of each school within the school district.
- (B) The average number of employees and students at each school.
- (C) The names and telephone numbers of the school district's air pollution episode action coordinator and an alternate.
- (D) The name and telephone number of the school district official responsible for implementation of the plan.
- (E) Detail concerning the communications system which will be used to relay episode

announcements, health advisory messages, and traffic abatement instructions to individual schools.

- (F) The location of the radio-receiving equipment required by Rule 707.
- (G) For first stage episodes:  
The methods by which school district administrators will encourage the establishment of permanent voluntary carpool or otherwise reduce motor vehicle travel for all employees including employees of each school.
- (H) For second stage episodes:  
Measures within the reasonable control of the school district administrators to further reduce the number of vehicle miles driven by all employees including employees of each school in commuting to and from work. Such measures shall, as a minimum, include:
  - (i) Methods to establish, implement, and encourage the use of an emergency ridesharing program for the district offices and each school.
  - (ii) Guidelines distributed to each school describing methods of establishing and implementing an emergency ridesharing program.
- (I) For third stage episodes:  
For district offices or schools normally closed on any major national holiday, the measures to operate as if the day were a major national holiday. Minimal staffing for security and required public information assistance may be provided. Third stage traffic abatement plans will be implemented only upon the governor's declaration of an air pollution disaster and a state of emergency.

- (2) Following written notice by the Executive Officer, a traffic abatement plan which meets the requirements of Rule 708.3(b) shall be submitted for each location which employs more than 100 persons on any one shift. Such plan may be submitted by the school district administrator or by the official at the operating location.

~~Rule 708.4. Procedural Requirements for Plans (Adopted May 6, 1977)  
(Amended April 4, 1980) (Amended July 11, 1980)~~

- ~~(a) The written notice specified in Rules 708.1 and 708.3(a) or (c) may be served in the manner prescribed by law for the service of Summons or by registered or certified mail. Each owner or operator so served shall, within forty-five (45) days after the receipt of such notice or within such additional time as the Executive Officer may specify in writing, submit to the Executive Officer the plans and information described in the notice.~~
- ~~(b) In accordance with the provisions of the Health and Safety Code, Section 42400, any person, following the notice specified in Rules 708.1 and 708.3(a) or (c) who fails to submit the plans in the form and manner specified in this rule is guilty of a misdemeanor.~~
- ~~(c) It is not intended that any plan of action shall jeopardize the welfare of the public or result in damage to any equipment used for production or distribution.~~
- ~~(d) The plans submitted in accordance with the provisions of this rule must be approved by the Executive Officer. Any plan disapproved by the Executive Officer must be modified to overcome the Executive Officer's disapproval and resubmitted to the Executive Officer within 30 days of the notice of disapproval. Any plan disapproved by the Executive Officer will not be considered to have satisfied the requirements of any of the sections of this rule.~~

8/15/80

## Rule 708.4. Procedural Requirements for Plans

(a) The written notice specified in Rules 708.1 and 708.3(a) or (c) may be served in the manner prescribed by law for the service of Summons or by registered or certified mail.

Each owner or operator ~~of an industrial, business, governmental or commercial establishment or activity~~ so served shall, within forty-five (45) days after the receipt of such notice or within such additional time as the Executive Officer may specify in writing, submit to the Executive Officer the plans and information described in the notice.

(b) In accordance with the provisions of the Health and Safety Code, Section 42400, any person, following the notice specified in Rules 708.1 and 708.3(a) or (c) who fails to submit the plans in the form and manner specified in this rule is guilty of a misdemeanor.

~~(c) It is not intended that any plan of action shall jeopardize the welfare of the public or result in damage to any equipment used for production or distribution.~~

~~(d) The plans submitted in accordance with the provisions of this rule must be approved by the Executive Officer. Any plan disapproved by the Executive Officer must be modified to overcome the Executive Officer's disapproval and resubmitted to the Executive Officer within 30 days of the notice of~~

~~disapproval. Any plan disapproved by the Executive~~

~~Officer will not be considered to have satisfied the requirements of any of the sections of this rule.~~

- ~~(e) All electrical utilities that file plans for energy conservation, load reduction or load shedding with the Public Utilities Commission shall submit copies of such plans to the Executive Officer. Consumers requested by an electrical utility company to prepare electrical load reduction plans shall submit copies of such plans to the Executive Officer.~~
- ~~(f) At the request of the Executive Officer, any person required to file a plan in accordance with the provisions of Rules 708.1 and 708.3 shall prepare a report regarding the actions taken at a facility in response to a second stage or third stage episode. The report shall be submitted within twenty days of the postmark date of the request. The report shall contain at least the following information:~~
- ~~(1) An estimate of the reduction in travel and the basis for the estimate.~~
  - ~~(2) An estimate of the stationary source emission reductions and the basis for the estimate.~~
  - ~~(3) Identification of problems encountered in implementing the abatement plan.~~



~~(4) Comments on the effectiveness of the abatement plan actions implemented.~~

~~(5) Recommendations for improved effectiveness.~~

~~(g) All organizations with an approved emergency episode plan required by Rule 708.1 and Rule 708.3(a) shall maintain a written record of actions taken for a predicted second or third stage episode. The written record shall be made available on request to an Air Quality Management District inspector. Such records shall be maintained for a period of at least 365 days after the predicted episode. The written record shall contain, at a minimum:~~

- ~~(1) the time of day episode message was received.~~
- ~~(2) actions taken to notify employees and the time of day such actions were taken.~~
- ~~(3) measures taken on the day of the predicted episode to determine effectiveness of episode plan and the estimated reduction in vehicle miles travelled and, for stationary source curtailment plans, the estimated reduction in emissions.~~
- ~~(4) the actions to be taken, if necessary, to improve the effectiveness.~~

~~The information specified in (1) and (2) shall be recorded and available for review by the day the episode is predicted to occur. The information specified in (3) and (4) shall be recorded and available for review within five working days after the day the episode was predicted to occur.~~

~~(h) A copy of the approved emergency action plan shall be on file and readily available to the South Coast Air Quality Management District inspector at each location where a plan is required.~~

~~Rule 709. First Stage Episode Actions~~

~~The following actions shall be taken in the affected source and receptor areas upon the Executive Officer's announcement of either a predicted or attained first stage episode:~~

- ~~(a) The notifications required by Rule 706.~~
- ~~(b) Advise the public that those individuals with special health problems should follow the precautions recommended by their physicians and health officials.~~
- ~~(c) Notify school officials that the California Air Pollution Emergency Plan requires the District to advise them ". . . that strenuous activities by students must be discontinued. This action may be limited to outdoor activities." Such actions shall only apply to those source or receptor areas that attain the episode(s).~~

6/11/77

\* RULE 708.4 PROCEDURAL REQUIREMENTS FOR PLANS

~~(a) The written notice specified in Rules 708.1 and 708.3(a) may be served in the manner prescribed by law for the service of summons or by registered or certified mail. Each owner or operator of an industrial, business, governmental or commercial establishment or activity so-served shall, within forty-five (45) days after the receipt of such notice or within such additional time as the APCO may specify in writing, submit to the APCO the plans and information described in the notice.~~

\* ~~(b) In accordance with the provisions of the Health and Safety Code, Section 42400, any person, following the notice specified in Rules 708.1 and 708.3(a), who fails to submit the plans in the form and manner specified in this rule is guilty of a misdemeanor.~~

(c) It is not intended that any plan of action shall jeopardize the welfare of the public or result in damage to any equipment used for production or distribution.

(d) The plans submitted in accordance with the provisions of this rule must be approved by the APCO. Any plan disapproved by the APCO must be modified to overcome the APCO's disapproval and resubmitted to the APCO within 30 days of the notice of disapproval. Any plan disapproved by the APCO will not be considered to have satisfied the requirements of any of the sections of this rule.

RULE 708.4 (Cont.)

- (e) All electrical utilities that file plans for energy conservation, load reduction or load shedding with the Public Utilities Commission or the Energy Resources Conservation and Development Commission shall submit copies of such plans to the APCO. Consumers requested by an electrical utility company to prepare electrical load reduction plans shall submit copies of such plans to the APCO.
- \* (f) At the request of the APCO, any person required to file a plan in accordance with the provisions of Rules 708.1 and 708.3 shall prepare a report regarding the actions taken at a facility in response to a second-stage or third-stage episode. The report shall be submitted within twenty days of the post-mark date of the request. The report shall contain at least the following information:
- (1) An estimate of the reduction in travel and the basis for the estimate.
  - (2) An estimate of the stationary source emission reductions and the basis for the estimate.
  - (3) Identification of problems encountered in implementing the abatement plan.
  - (4) Comments on the effectiveness of the abatement plan actions implemented.
  - (5) Recommendations for improved effectiveness.
- ~~(h) A copy of the approved emergency action plan shall be on file and readily available to an Air Quality Management District inspector at each location where a plan is required.~~

4/23/80

## Rule 708.4. Procedural Requirements for Plans

- ~~(a) The written notice specified in Rules 708.1 and 708.3(a) may be served in the manner prescribed by law for the service of Summons or by registered or certified mail. Each owner or operator of an industrial, business, governmental or commercial establishment or activity so served shall, within forty-five (45) days after the receipt of such notice or within such additional time as the APCO Executive Officer may specify in writing, submit to the APCO Executive Officer the plans and information described in the notice.~~
- (b) In accordance with the provisions of the Health and Safety Code, Section 42400, any person, following the notice specified in Rules 708.1 and 708.3(a), who fails to submit the plans in the form and manner specified in this rule is guilty of a misdemeanor.
- (c) It is not intended that any plan of action shall jeopardize the welfare of the public or result in damage to any equipment used for production or distribution.
- (d) The plans submitted in accordance with the provisions of this rule must be approved by the APCO. Executive Officer. Any plan disapproved by the APCO Executive Officer must be modified to overcome the APCO's Executive Officer's disapproval and resubmitted to the APCO Executive Officer within 30 days of the notice of ~~disapproval. Any plan disapproved by the APCO Executive~~

~~Officer will not be considered to have satisfied the requirements of any of the sections of this rule.~~

- (e) All electrical utilities that file plans for energy conservation, load reduction or load shedding with the Public Utilities Commission shall submit copies of such plans to the AP&E. Executive Officer. Consumers requested by an electrical utility company to prepare electrical load reduction plans shall submit copies of such plans to the AP&E. Executive Officer.
- (f) At the request of the AP&E, Executive Officer, any person required to file a plan in accordance with the provisions of Rules 708.1 and 708.3 shall prepare a report regarding the actions taken at a facility in response to a second stage or third stage episode. The report shall be submitted within twenty days of the postmark date of the request. The report shall contain at least the following information:
- (1) An estimate of the reduction in travel and the basis for the estimate.
  - (2) An estimate of the stationary source emission reductions and the basis for the estimate.
  - (3) Identification of problems encountered in implementing the abatement plan.
  - (4) Comments on the effectiveness of the abatement plan actions implemented.
  - (5) Recommendations for improved effectiveness.

(g) All organizations with an approved emergency episode plan required by Rule 708.1 and Rule 708.3 shall maintain a written record of actions taken for a predicted second or third stage episode. The written record shall be made available on request to an Air Quality Management District inspector. Such records shall be maintained for a period of at least 365 days after the predicted episode. The written record shall contain, at a minimum:

- (1) the time of day episode message was received.
- (2) actions taken to notify employees and the time of day such actions were taken.
- (3) measures taken on the day of the predicted episode to determine effectiveness of episode plan and the estimated reduction in vehicle miles travelled and, for stationary source curtailment plans, the estimated reduction in emissions.
- (4) the actions to be taken, if necessary, to improve the effectiveness.

The information specified in (1) and (2) shall be recorded and available for review by the day the episode is predicted to occur. The information specified in (3) and (4) shall be recorded and available for review within five working days after the day the episode was predicted to occur.

- (h) A copy of the approved emergency action plan shall be on file and readily available to an the South Coast Air Quality Management District inspector at each location where a plan is required.

4/23/80

~~Rule 709. First Stage Episode Actions~~

~~A first-stage-episode shall be declared when any first-stage episode concentration specified in Rule 703 is predicted or is attained. The following actions shall be taken in the affected source and receptor areas upon the APCO's Executive Officer's declaration announcement of either a predicted or attained first stage episode:~~

- ~~(a) The notifications required by Rule 706.~~
- ~~(b) Advise the public that those individuals with special health problems should follow the precautions recommended by their physicians and health officials.~~
- ~~(c) Notify school officials that the California Air Pollution Emergency Plan requires the District to advise them ". . . that strenuous activities by students must be discontinued. This action may be limited to outdoor activities." Such actions shall only apply to those source or receptor areas that attain the episode(s).~~
- ~~(d) By means of recorded telephone messages, the APCO Executive Officer shall notify members of the public who~~



~~(h) A copy of the approved emergency action plan shall be on file and readily available to an the South Coast Air Quality Management District inspector at each location where a plan is required.~~

4/23/80

Rule 709. First Stage Episode Actions

~~A first stage episode shall be declared when any first stage episode concentration specified in Rule 703 is predicted or is attained.~~ The following actions shall be taken in the affected source and receptor areas upon the APCO's Executive Officer's declaration announcement of either a predicted or attained first stage episode:

(a) The notifications required by Rule 706.

~~(b) Advise the public that those individuals with special health problems should follow the precautions recommended by their physicians and health officials.~~

~~(c) Notify school officials that the California Air Pollution Emergency Plan requires the District to advise them ". . . that strenuous activities by students must be discontinued. This action may be limited to outdoor activities." Such actions shall only apply to those source or receptor areas that attain the episode(s).~~

~~(d) By means of recorded telephone messages, the APCO Executive Officer shall notify members of the public who~~

~~telephone the District's Zone offices.~~

- (e) Implement the appropriate plans as specified in Rule 708(b) and (c).
- (f) Request the public to stop all unnecessary driving.
- (g) Request the public to operate all privately-owned vehicles on a pool basis.

4/23/80

Rule 710. Second Stage Episode Actions

~~A second stage episode shall be declared when any second stage episode concentration specified in Rule 703 is predicted or is attained.~~

The following actions shall be taken in the affected source and receptor areas upon the APCO's Executive Officer's declaration announcement of a predicted or attained second stage episode:

(a) ~~General~~

For either predicted or attained episodes:

- (1) The actions described in Rule 709.
- (2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities located in receptor areas. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.

(b) For predicted episodes:

- (1) ~~Caused by oxidant ozone:~~

6/1/77

RULE 709 FIRST-STAGE-EPIISODE ACTIONS

~~A first stage episode shall be declared when any first stage episode concentration specified in Rule 703 is predicted or is attained. The following actions shall be taken in the source and receptor areas upon the APCO's declaration of either a predicted or attained first-stage episode:~~

~~(a) The notifications required by Rule 706.~~

(b) Advise the public that those individuals with special health problems should follow the precautions recommended by their physicians and health officials.

~~(c) Advise school officials to cancel, postpone or reschedule programs which require outdoor physical activity.~~

(d) By means of recorded telephone messages, the APCO shall notify members of the public who telephone the District's Zone offices.

~~(e) Implement the appropriate plans as specified in Rule 708(b) and (c).~~

(f) Request the public to stop all unnecessary driving.

(g) Request the public to operate all privately-owned vehicles on a pool basis.

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Rule 709. First-Stage Episode Actions

~~A first stage episode shall be declared when any first-stage episode concentration specified in Rule 703 is predicted or is attained. The following actions shall be taken in the source and receptor areas upon the APCO'S declaration of either a predicted or attained first-stage episode:~~

~~(a) The notifications required by Rule 706.~~

~~(b) Advise the public that those individuals with special health problems should follow the precautions recommended by their physicians and health officials.~~

~~(c) Advise school officials to cancel, postpone or reschedule programs which require outdoor physical activity. Notify school officials that the California Air Pollution Emergency Plan requires the District to advise them "...that strenuous activities by students must be discontinued. This action may be limited to outdoor activities." Such actions shall only apply to those source or receptor areas that attain the episode(s).~~

~~(d) By means of recorded telephone messages, the APCO shall notify members of the public who telephone the District's Zone offices.~~

Rule 709. First-Stage Episode Actions

- ~~(e) Implement the appropriate plans as specified in Rule 708(b) and (c).~~
- ~~(f) Request the public to stop all unnecessary driving.~~
- ~~(g) Request the public to operate all privately owned vehicles on a pool basis.~~

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~~(h) A copy of the approved emergency action plan shall be on file and readily available to the South Coast Air Quality Management District inspector at each location where a plan is required.~~

Rule 709. First Stage Episode Actions

The following actions shall be taken in the affected source and receptor areas upon the Executive Officer's announcement of either a predicted or attained first stage episode:

- ~~(a) The notifications required by Rule 706.~~
- (b) Advise the public that those individuals with special health problems should follow the precautions recommended by their physicians and health officials.
- (c) Notify school officials that the California Air Pollution Emergency Plan requires the District to advise them ". . . that strenuous activities by students must be discontinued. This action may be limited to outdoor activities." Such actions shall only apply to those source or receptor areas that attain the episode(s).

~~(d) By means of recorded telephone messages, the Executive Officer shall notify members of the public who telephone the District's Zone offices.~~

8/15/80 (e) Persons required to submit plans under Rules 708.1 and/or 708.3 shall implement the required appropriate approved plans as specified in Rule 708(b) and (c).

~~(f) Request the public to stop all unnecessary driving.~~

~~(g) Request the public to operate all privately-owned vehicles on a pool basis.~~

Rule 710. Second Stage Episode Actions

The following actions shall be taken in the affected source and receptor areas upon the Executive Officer's announcement of a predicted or attained second stage episode:

(a) For either predicted or attained episodes:

- (1) The actions described in Rule 709.
- (2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities located in receptor areas. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.

(b) For predicted episodes:

(1) Caused by ozone:

(A) Request the public to stop all unnecessary driving.

(B) Request the public to operate all

~~privately-owned vehicles on a pool basis.~~

~~telephone the District's Zone offices.~~

- ~~(e) Implement the appropriate plans as specified in Rule 708(b) and (c).~~
- ~~(f) Request the public to stop all unnecessary driving.~~
- ~~(g) Request the public to operate all privately-owned vehicles on a pool basis.~~

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#### Rule 710. Second Stage Episode Actions

~~A second stage episode shall be declared when any second stage episode concentration specified in Rule 703 is predicted or is attained.~~

The following actions shall be taken in the affected source and receptor areas upon the APCC's Executive Officer's declaration announcement of a predicted or attained second stage episode:

(a) General

For either predicted or attained episodes:

- (1) The actions described in Rule 709.
- (2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities located in receptor areas. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.

(b) For predicted episodes:

~~(1) Caused by oxidant ozone:~~



~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

~~(D) Implement the required plans as specified in Rule 708(b) and (c).~~

(2) Caused by carbon monoxide:

(A) Request the public in the area of the episode to avoid non-emergency use of automobiles.

(B) Request the general public to avoid the area of the episode.

(C) Prohibit the burning of combustible refuse.

(D) Implement the required plans as specified in Rule 708(b).

(3) Caused by sulfur dioxide:

(A) Request the public to reduce the use of electricity by ten percent by reducing lighting, adjusting air conditioning thermostats, and reducing appliance use and swimming pool pump use.

(B) Implement the required plans as specified in Rule 708(c).

(4) Caused by oxidant ozone/sulfur dioxide:

(A) Request the public to reduce the use of electricity by ten percent by reducing lighting, adjusting air conditioning thermostats, and reducing appliance use and

swimming pool pump use.

- (B) Request the public to stop all unnecessary driving.
- (C) Request the public to operate all privately-owned vehicles on a pool basis.
- (D) Prohibit the burning of combustible refuse.
- (E) Implement the required plans as specified in Rule 708(b) and (c).

~~(c) Episodes attained without being predicted:~~

~~(1) Caused by oxidant ozone:~~

- ~~(A) Request the public to stop all unnecessary driving.~~
- ~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~
- ~~(C) Prohibit the burning of combustible refuse.~~

~~(2) Caused by carbon monoxide:~~

- ~~(A) Request the public in the area of the episode to avoid non-emergency use of automobiles.~~
- ~~(B) Request the general public to avoid the area of the episode.~~
- ~~(C) Prohibit the burning of combustible refuse.~~

~~(3) Caused by sulfur dioxide:~~

- ~~(A) Request the public to reduce the use of electricity by ten percent by reducing lighting, adjusting air conditioning thermostats, and reducing appliance use and swimming pool pump use.~~
- ~~(B) Implement the required plans as specified in~~

RULE 710 SECOND-STAGE-EPIISODE ACTIONS

~~A second stage episode shall be declared when any second-stage episode concentration specified in Rule 703 is predicted or is attained.~~

The following actions shall be taken in the source and receptor areas upon the APCO's declaration of a second-stage episode:

(a) General:

- (1) The actions described in Rule 709.
- (2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities located in receptor areas. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.

(b) For predicted episodes:

(1) Caused by oxidant:

- (A) Request the public to stop all unnecessary driving.
- (B) Request the public to operate all privately-owned vehicles on a pool basis.
- (C) Prohibit the burning of combustible refuse.

~~(D) Implement the required plans as specified in Rule 708(b) and (c).~~

(2) Caused by carbon monoxide:

- (A) Request the public in the area of the episode to avoid non-emergency use of automobiles.
- (B) Request the general public to avoid the area of the episode.

RULE 710 (b)(2) (Cont.)

(C) Prohibit the burning of combustible refuse.

~~(D) Implement the required plans as specified in Rule 708(b).~~

(3) Caused by sulfur dioxide:

(A) Request the public to reduce the use of electricity by 10 percent by reducing lighting, adjusting air conditioning thermostats, and reducing appliance use and swimming pool pump use.

~~(B) Implement the required plans as specified in Rule 708(c).~~

(4) Caused by oxidant/sulfur dioxide:

(A) Request the public to reduce the use of electricity by 10 percent by reducing lighting, adjusting air conditioning thermostats, and reducing appliance use and swimming pool pump use.

(B) Request the public to stop all unnecessary driving.

(C) Request the public to operate all privately-owned vehicles on a pool basis.

(D) Prohibit the burning of combustible refuse.

~~(E) Implement the required plans as specified in Rule 708(b) and (c).~~

(c) Episodes attained without being predicted:

(1) Caused by oxidant:

(A) Request the public to stop all unnecessary driving.

(B) Request the public to operate all privately-owned vehicles on a pool basis.

(C) Prohibit the burning of combustible refuse.

RULE 710 (c) (Cont.)

(2) Caused by carbon monoxide:

(A) Request the public in the area of the episode to avoid non-emergency use of automobiles.

(B) Request the general public to avoid the area of the episode.

(C) Prohibit the burning of combustible refuse.

(3) Caused by sulfur dioxide:

(A) Request the public to reduce the use of electricity by 10 percent by reducing lighting, adjusting air conditioning thermostats, and reducing appliance use and swimming pool pump use.

~~(B) Implement the required plans as specified in~~

~~Rule 708(c).~~

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~~(d) By means of recorded telephone messages, the Executive Officer shall notify members of the public who telephone the District's Zone offices.~~

8/15/80 (e) Persons required to submit plans under Rules 708.1 and/or 708.3 shall implement the required appropriate approved plans as specified in Rule 708(b) and (c).

(f) Request the public to stop all unnecessary driving.

(g) Request the public to operate all privately-owned vehicles on a pool basis.

#### Rule 710. Second Stage Episode Actions

The following actions shall be taken in the affected source and receptor areas upon the Executive Officer's announcement of a predicted or attained second stage episode:

~~(a) For either predicted or attained episodes:~~

~~(1) The actions described in Rule 709.~~

~~(2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities located in receptor areas. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.~~

(b) For predicted episodes:

(1) Caused by ozone:

~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

(D) Persons required to submit plans under Rules 708.1 and/or 708.3 shall implement the appropriate approved plans as specified in Rule 708(b) and (c).

(2) Caused by carbon monoxide:

~~(A) Request the public in the area of the episode to avoid non-emergency use of automobiles.~~

~~(B) Request the general public to avoid the area of the episode.~~

~~(C) Prohibit the burning of combustible refuse.~~

(D) Persons required to submit plans under Rule 708.3 shall implement the required appropriate approved plans as specified in Rule 708(b).

(3) Caused by sulfur dioxide:

~~(A) Request the public to reduce the use of electricity by ten percent by reducing lighting, adjusting air conditioning thermostats, and reducing appliance use and swimming pool pump use.~~

(B) Persons required to submit plans under Rule 708.1 shall implement the required appropriate approved plans as specified in Rule 708(c).

~~(4) Caused by ozone/sulfur dioxide:~~

~~(A) Request the public to reduce the use of electricity by ten percent by reducing lighting, adjusting air conditioning~~

~~thermostats, and reducing appliance use and swimming pool pump use.~~

- ~~(B) Request the public to stop all unnecessary driving.~~
- ~~(C) Request the public to operate all privately-owned vehicles on a pool basis.~~
- ~~(D) Prohibit the burning of combustible refuse.~~
- ~~(E) Persons required to submit plans under Rules 708.1 and/or 708.3 shall implement the required appropriate approved plans as specified in Rule 708(b) and (c).~~

(c) Episodes attained without being predicted:

~~(1) Caused by ozone:~~

- ~~(A) Request the public to stop all unnecessary driving.~~
- ~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~
- ~~(C) Prohibit the burning of combustible refuse.~~

~~(2) Caused by carbon monoxide:~~

- ~~(A) Request the public in the area of the episode to avoid non-emergency use of automobiles.~~
- ~~(B) Request the general public to avoid the area of the episode.~~

~~(C) Prohibit the burning of combustible refuse.~~

(3) Caused by sulfur dioxide:

- ~~(A) Request the public to reduce the use of electricity by ten percent by reducing lighting, adjusting air conditioning~~



~~thermostats, and reducing appliance use and  
swimming pool pump use.~~

- (B) Persons required to submit plans under Rule 708.1 shall implement the required appropriate approved plans as specified in Rule 708(c).

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Rule 711. Third Stage Episode Actions~~

~~Following the announcement of either a predicted or attained third stage episode, the actions described in Rule 710(a) shall be taken in the affected source or receptor areas.~~

~~Following the Governor declaring an air pollution disaster and implementing a state of emergency, the following additional actions shall be taken:~~

- (a) For predicted episodes, require the general public, schools, commercial, industrial and governmental activities throughout the District to operate as though the day were a major national holiday and for episodes:

(1) Caused by ozone:

- (A) Request the public to stop all unnecessary driving.
- (B) Request the public to operate all privately-owned vehicles on a pool basis.
- (C) Prohibit the burning of combustible refuse.
- (D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.
- (E) Persons required to submit plans under Rules 708.1 and/or 708.3 shall implement the

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Rule 711. Third Stage Episode Actions

~~A third stage episode shall be declared when any third stage episode concentration specified in Rule 703 is predicted or is attained. Following the announcement of either a predicted or attained third stage episode, the actions described in Rule 710(a) shall be taken in the affected source or receptor areas. upon the APCO's declaration of a third stage episode.~~

Following the Governor declaring an air pollution disaster and implementing a state of emergency, the following additional actions shall be taken:

~~(a) The actions described in Rule 710(a)~~

(a) For predicted episodes, require the general public, schools, commercial, industrial and governmental activities throughout the District to operate as though the day were a major national holiday and for episodes:

(1) Caused by oxidant ozone:

- (A) Request the public to stop all unnecessary driving.
- (B) Request the public to operate all privately-owned vehicles on a pool basis.
- (C) Prohibit the burning of combustible refuse.
- (D) Prohibit activities such as; asphalt roofing, asphalt paving and surface coating where the

use of large quantities of volatile material is involved.

~~(E) Implement the required plans as specified in Rule 708(b) and (c).~~

~~(2) Caused by carbon monoxide:~~

- ~~(A) Request the public in the area of the episode to avoid non-emergency use of automobiles.~~
- ~~(B) Request the general public to avoid the area of the episode.~~
- ~~(C) Prohibit the burning of combustible refuse.~~
- ~~(D) Implement the required plans as specified in Rule 708(b).~~

~~(3) Caused by sulfur dioxide:~~

- ~~(A) Request the public to reduce electrical energy consumption by 40 percent.~~
- ~~(B) Implement the required plans as specified in Rule 708(c).~~

(4) Caused by oxidant ozone/sulfur dioxide:

- (A) Request the public to stop all unnecessary driving.
- (B) Request the public to operate all privately-owned vehicles on a pool basis.
- (C) Prohibit the burning of combustible refuse.
- (D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.
- (E) Request the public to reduce electric energy

consumption by 40 percent.

~~(F) Implement the required plans as specified in  
Rule 708(b) and (c).~~

(b) For episodes attained without being predicted:

(1) Caused by ~~oxidant~~ ozone:

- (A) Request the public to stop all unnecessary driving.
- (B) Request the public to operate all privately-owned vehicles on a pool basis.
- (C) Prohibit the burning of combustible refuse.
- (D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.

~~(2) Caused by carbon monoxide:~~

- ~~(A) Request the general public outside of the area of the episode to avoid the area of the episode.~~
- ~~(B) Prohibit the burning of combustible refuse.~~

~~(3) Caused by sulfur dioxide:~~

- ~~(A) Request the public to reduce electrical energy consumption by 40 percent.~~
- ~~(B) Implement the required plans as specified in  
Rule 708(c).~~

(4) Caused by ~~oxidant~~ ozone/sulfur dioxide:

- (A) Request the public to stop all unnecessary driving.
- (B) Request the public to operate all privately-owned vehicles on a pool basis.

- (C) Prohibit the burning of combustible refuse.
- (D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.
- (E) Request the public to reduce electric energy consumption by 40 percent.

~~(F) Implement the required plans as specified in Rule 708(c).~~

~~If it appears that the steps taken by the APCO will be inadequate to cope with the episode, the Air Pollution Control Board shall request the governor to declare a state of emergency as set forth in the California Emergency Services Act.~~

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RULE 711 THIRD-STAGE-EPISODE ACTIONS

~~A third-stage episode shall be declared when any third stage episode concentration specified in Rule 703 is predicted or is attained. The following actions shall be taken in the source or receptor areas upon the APCO's declaration of a third-stage episode.~~

~~(a) The actions described in Rule 710(a).~~

\* (b) For predicted episodes, require the general public, schools, commercial, industrial and governmental activities throughout the District to operate as though the day were a major national holiday and for episodes:

~~(1) Caused by oxidant:~~

- ~~(A) Request the public to stop all unnecessary driving.~~
- ~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~
- ~~(C) Prohibit the burning of combustible refuse.~~
- ~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.~~
- ~~(E) Implement the required plans as specified in Rule 703(b) and (c).~~

(2) Caused by carbon monoxide:

- (A) Request the general public outside of the area of the episode to avoid the area of the episode.
- (B) Prohibit the burning of combustible refuse.
- ~~(C) Implement the required plans as specified in~~

~~Rule 703(b).~~

(3) Caused by sulfur dioxide:

- (A) Request the public to reduce electrical energy

RULE 711 (b)(3) (Cont.)

~~(B) Implement the required plans as specified in Rule 708(c).~~

(4) Caused by oxidant/sulfur dioxide:

~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.~~

~~(E) Request the public to reduce electric energy consumption by 40 percent.~~

~~(F) Implement the required plans as specified in Rule 708(b) and (c).~~

(c) For episodes attained without being predicted:

~~(1) Caused by oxidants:~~

~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.~~

(2) Caused by carbon monoxide:

(A) Request the general public outside of the area of the episode to avoid the area of the episode.

RULE 711 (c)(2) (Cont.)

(B) Prohibit the burning of combustible refuse.

(3) Caused by sulfur dioxide:

(A) Request the public to reduce electrical energy consumption by 40 percent.

~~(B) Implement the required plans as specified in~~

~~Rule 708(c).~~

~~(4) Caused by oxidant/sulfur dioxide.~~

~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.~~

~~(E) Request the public to reduce electric energy consumption by 40 percent.~~

~~(F) Implement the required plans as specified in Rule 708(c).~~

~~If it appears that the steps taken by the APCO will be inadequate to cope with the episode, the Air Pollution Control Board shall request the Governor to declare a state of emergency as set forth in the California Emergency Services Act.~~



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~~thermostats, and reducing appliance use and swimming pool pump use.~~

~~(B) Persons required to submit plans under Rule 708.1 shall implement the required appropriate approved plans as specified in Rule 708(e).~~

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Rule 711. Third Stage Episode Actions

Following the announcement of either a predicted or attained third stage episode, the actions described in Rule 710(a) shall be taken in the affected source or receptor areas.

Following the Governor declaring an air pollution disaster and implementing a state of emergency, the following additional actions shall be taken:

(a) For predicted episodes, require the general public, schools, commercial, industrial and governmental activities throughout the District to operate as though the day were a major national holiday and for episodes:

(1) Caused by ozone:

~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.~~

(E) Persons required to submit plans under Rules 708.1 and/or 708.3 shall implement the

required appropriate approved plans as specified in Rule 708(b) and (c).

(2) Caused by carbon monoxide:

~~(A) Request the public in the area of the episode to avoid non-emergency use of automobiles.~~

~~(B) Request the general public to avoid the area of the episode.~~

~~(C) Prohibit the burning of combustible refuse.~~

(D) Persons required to submit plans under Rule 708.3 shall implement the required appropriate approved plans as specified in Rule 708(b).

(3) Caused by sulfur dioxide:

~~(A) Request the public to reduce electrical energy consumption by 40 percent.~~

(B) Persons required to submit plans under Rule 708.1 shall implement the required appropriate approved plans as specified in Rule 708(c).

(4) Caused by ozone/sulfur dioxide:

~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the~~

~~use of large quantities of volatile material is involved.~~

~~(E) Request the public to reduce electric energy consumption by 40 percent.~~

(F) Persons required to submit plans under Rule 708.1 and/or 708.3 shall implement the required appropriate approved plans as specified in Rule 708(b) and (c).

(b) For episodes attained without being predicted:

~~(1) Caused by ozone:~~

~~(A) Request the public to stop all unnecessary driving.~~

~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~

~~(C) Prohibit the burning of combustible refuse.~~

~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.~~

(2) Caused by carbon monoxide:

(A) Request the general public outside of the area of the episode to avoid the area of the episode.

~~(B) Prohibit the burning of combustible refuse.~~

(3) Caused by sulfur dioxide:

~~(A) Request the public to reduce electrical energy consumption by 40 percent.~~

- (B) Persons required to submit plans under Rule 708.1 shall implement the required appropriate approved plans as specified in Rule 708(c).

(4) Caused by ozone/sulfur dioxide:

- ~~(A) Request the public to stop all unnecessary driving.~~
- ~~(B) Request the public to operate all privately-owned vehicles on a pool basis.~~
- ~~(C) Prohibit the burning of combustible refuse.~~
- ~~(D) Prohibit activities such as, asphalt roofing, asphalt paving and surface coating where the use of large quantities of volatile material is involved.~~
- ~~(E) Request the public to reduce electric energy consumption by 40 percent.~~
- (F) Persons required to submit plans under Rule 708.1 shall implement the required appropriate approved plans as specified in Rule 708(c).

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~~Rule 712. Sulfate Episode Actions~~

~~The following actions shall be taken in the affected source or receptor areas upon the Executive Officer's announcement of either a predicted or attained sulfate episode.~~

- ~~(a) The actions described in Rule 710(a).~~
- ~~(b) Request the public to reduce electric energy consumption by 40 percent.~~

Rule 713. Interdistrict Coordination

(a) Upon request of an air pollution control officer of an air pollution control district within the Southeast Desert Air Basin or the South Central Air Basin for action to abate episodes occurring within that district, the APCO Executive Officer shall make a determination as to any significant source area within the geographical limits of the District and the episode stage, if any, to be declared in such source area. After such determination, and the need for action is confirmed, the APCO Executive Officer shall direct the implementation of the action required in Rules 709, 710, 711, or 712 for any significant source area identified within the District.

(b) Within one hour of the receipt of the request for abatement actions specified in Rule 713(a), or as soon thereafter as reasonably possible, the APCO Executive Officer shall report to the requesting air pollution control district the actions being taken to reduce air contaminant emissions from the source areas within his jurisdiction.

~~Rule 714. Source Inspections~~

~~The APCO Executive Officer shall implement a source inspection plan upon the declaration of an episode~~

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~~Rule 713. Interdistrict Coordination~~

~~(a) Upon request of an air pollution control officer of an air pollution control district within the Southeast Desert Air Basin or the South Central Air Basin for action to abate episodes occurring within that district, the APCO Executive Officer shall make a determination as to any significant source area within the geographical limits of the District and the episode stage, if any, to be declared in such source area. After such determination, and the need for action is confirmed, the APCO Executive Officer shall direct the implementation of the action required in Rules 709, 710, 711, or 712 for any significant source area identified within the District.~~

~~(b) Within one hour of the receipt of the request for abatement actions specified in Rule 713(a), or as soon thereafter as reasonably possible, the APCO Executive Officer shall report to the requesting air pollution control district the actions being taken to reduce air contaminant emissions from the source areas within his jurisdiction.~~

Rule 714. Source Inspections

The APCO Executive Officer shall implement a source inspection plan upon the declaration of an episode.

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Rule 715. Burning of Fossil Fuel on Episode Days

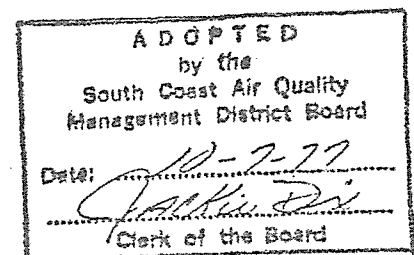
Notwithstanding other provisions of this regulation, liquid or solid fossil fuel shall not be burned in electrical generating units on predicted or declared episode days of oxidant, sulfur dioxide, sulfur dioxide plus oxidant, or sulfates in combination with oxidant unless all natural gas which is available to electrical generating units in the district is being burned in such unit.

Adopted 10/7/77

2/15/80

RULE 1101  
SECONDARY LEAD SMELTERS/SULFUR OXIDES

- (a) A person shall not discharge into the atmosphere from any lead melting furnace such as described in Section (b) below, effluent process gas containing sulfur oxides in excess of the concentration and mass flow rate indicated by both subsections (a) (1) and (a) (2):
- (1) 200 ppm of sulfur oxides expressed as sulfur dioxide, measured at the point of emission to the atmosphere, and calculated on a dry basis averaged over a minimum of 15 consecutive minutes, and
  - (2) 2.1 kilograms of sulfur oxides per metric ton of process weight (4.2 pounds of sulfur oxides per short ton of process weight) expressed as sulfur dioxide.
- (b) This rule shall apply only to furnaces used to recover lead from the following:
- (1) Automotive batteries, and/or
  - (2) Slag and dross resulting from the melting of automotive batteries.



Resolution No. 77-44



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 restrictions 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.

(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 0°F 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.

4/23/80

3/26/80

Proposed Rule 1103 - Pharmaceuticals and Cosmetics  
Manufacturing Operations

(a) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) Volatile Organic Compounds (VOC) are compounds of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, ethane, methane, 1, 1, 1 trichloroethane, methylene chloride, and trichlorotrifluoroethane, that have a Reid-vapor pressure ~~greater than 80 mm Hg (1.55 pounds per square inch)~~ or an absolute vapor pressure greater than ~~36~~ 26 mm Hg (~~0.7~~ 0.5 psi) at 20°C.
- (2) A pharmaceutical manufacturing plant is any plant producing or blending chemicals for use in pharmaceutical products and/or manufacturing pharmaceutical products by chemical processes.
- (3) A cosmetics manufacturing plant is any plant producing or blending chemicals for use in cosmetic products and/or manufacturing cosmetic products by chemical processes.
- (4) In-process tanks are containers used for mixing, blending, heating, reacting, holding, crystallizing,



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evaporating, or cleaning operations in the manufacture of pharmaceuticals or cosmetics.

## (b) Applicability

The provisions of this rule shall apply to:

- (1) The manufacture of pharmaceutical and cosmetic products by chemical processes.
- (2) The production and separation of medicinal chemicals such as antibiotics and vitamins from microorganisms.
- (3) The manufacture of botanical and biological products by the extraction of organic chemicals from vegetative materials or animal tissues.
- (4) The formulation of pharmaceuticals into various dosage forms such as tablets, capsules, injectable solutions or ointments, that can be taken by the patient immediately and in an accurate amount; and the formulation of cosmetics into configurations intended for consumer use.

## (c) Equipment Requirements

- (1) (A) An owner/operator shall not use reactors, distillation columns, crystallizers, centrifuges emitting more than 15 pounds per day of VOC for each permit unit unless the vents are equipped with surface condensers or equivalent control devices.

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(B) An operator shall not use surface condensers for the control of organic gases unless the condenser outlet gas temperature is controlled as shown in the following table:

<u>Absolute Vapor Pressure of VOC at 20°C</u>	<u>Maximum Condenser Outlet Gas Temperature</u>
0.5 psi to 1.0 psi	25°C
1.0 psi to 1.5 psi	10
1.5 psi to 2.9 psi	0
2.9 psi to 5.8 psi	-15
over 5.8 psi	-25

(C) Equivalent control devices may be used with the approval of the Executive Officer. Equivalent control is achieved when VOC emissions are reduced by at least as much as would have occurred using a surface condenser per section (b)(1)(B).

(2) An operator shall not use centrifuges, rotary vacuum filters, or any other filters, or devices having an exposed liquid surface where the liquid contains VOC having a total VOC vapor pressure of 0.5 psi or more at 20°C, unless such devices incorporate a hood or enclosure with a delivery

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system or ductwork to collect VOC emissions, exhausting to a carbon absorber, or equivalent control method approved by the Executive Officer.

- (3) An operator shall not use in-process tanks for material containing VOC unless an apparatus or cover which prevents VOC evaporation is provided for the tank. The cover shall be closed or in place on the tank at all times except while loading or unloading the tank.

(d) Operating Requirements

An operator shall conform to the following operational requirements:

- (1) An operator shall not use air dryers or production equipment exhaust systems that emit 330 pounds per day or more of volatile organic compounds for each basic permit unit unless the emission of such organic materials into the atmosphere has been reduced by at least 90 percent by weight.
- (2) Notwithstanding the provisions of paragraph (d)(1), an operator using air dryer or production equipment exhaust systems that emit less than 330 pounds per day of volatile organic compounds shall ~~not be required to~~ reduce the emissions of such organic materials into the atmosphere to less than 33 pounds per day.

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- (3) An operator shall not transfer VOC having a vapor pressure greater than 4.1 psi at 20°C, from any truck or rail car into any storage tank of a 2,000 gallon capacity or greater, unless VOC emissions during transfer are reduced by 90 percent by weight.
- (4) An operator shall install pressure/vacuum vents set at  $\pm 0.03$  psig on all storage tanks that store VOC with a vapor pressure greater than 1.5 psia at 20°C, unless a more effective control system, approved by the Executive Officer, is used.
- (5) An operator shall repair all leaks from which a liquid, containing VOC, can be observed to be running or dripping. The repair shall be completed the first time the equipment is off-line for a period of time long enough to complete the repair.

## (e) Exemptions

The provisions of this rule shall not apply to facilities that emit, at the design production rating, 15 pounds per day or less of volatile organic compounds.

## (f) Effective Dates

The owner or operator of any pharmaceutical or cosmetics manufacturing facility subject to this rule shall comply with the provisions of this rule on or before January 1, 1983.

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:

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) SEMITRANSSPARENT 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.

Adopted April 7, 1978  
Amended August 6, 1982  
Amended September 16, 1983  
Amended September 21, 1984

Rule 1105 - Fluid Catalytic Cracking Units -  
Oxides of Sulfur

(a) Requirements

A person shall not discharge into the atmosphere from any fluid catalytic cracking unit oxides of sulfur in excess of the following limits:

- (1) Until January 1, 1987, 130 kilograms (286 pounds) per thousand barrels of feed charged to the fluid catalytic cracking unit, as measured in the exhaust to the atmosphere and calculated as a mass emission rate of sulfur dioxide (SO<sub>2</sub>) from the regenerator.
- (2) On and after January 1, 1987, 60 kilograms (132 pounds) per thousand barrels of feed charged to the fluid catalytic cracking unit, as measured in the exhaust to the atmosphere and calculated as a mass emission rate of sulfur dioxide (SO<sub>2</sub>) from the regenerator.

(b) Compliance Schedule

The owner or operator of any existing fluid catalytic cracking unit which requires modifications to comply with paragraph (a)(2) shall be in compliance by January 1, 1987, and shall comply with the following increments of progress:

- (1) January 1, 1985.

Submit to the Executive Officer for approval an application for permit to construct or a control plan which describes, at a minimum, the steps that will be taken to achieve compliance with the provisions of this rule.

- (2) March 1, 1985.

Award the contract for an emission control system or issue orders for the purchase of component parts to accomplish emission control.

(3) May 1, 1985.

Initiate on-site construction or installation of emission control equipment.

(4) November 1, 1986.

Complete on-site construction or installation of emission control equipment.

(c) Compliance Determination

(1) For determination of compliance with the emission limits of section (a): oxides of sulfur shall be expressed as sulfur dioxide ( $SO_2$ ), and averaged over 60 consecutive minutes, or other longer averaging time specified by the Executive Officer.

(2) Calculations of mass emission rate of sulfur oxides from the regenerator.

Within thirty days after September 16, 1983, the owner or operator of a fluid catalytic cracking unit shall submit to the Executive Officer for approval all formulas necessary to calculate the mass emission rates of sulfur oxides from the regenerator per thousand barrels of feed. All variable parameters included in the formulas and necessary to calculate mass emissions of sulfur oxides from regenerators shall be measured and recorded at least once per shift and maintained in a manner specified by the Executive Officer. Daily records of sulfur oxides emission rates per thousand barrels of feed shall be submitted monthly to the Executive Officer, within 30 days of the end of the month being reported.

3/11/82

11-23-81

~~Proposed~~ Rule 1110 - Emissions from Stationary Internal Combustion Engines (Demonstration)

(a) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) A stationary internal combustion engine (engine) is any spark ignition (Otto cycle) internal combustion engine that is operated at a specific site for more than one year or is attached to a foundation at that site.
- (2) A rich-burn engine is a ~~spark-ignition-(Otto-cycle)~~ an engine that can-be-adjusted-to-run is operated with an exhaust stream oxygen concentration of less than one percent by volume.
- (3) A lean-burn engine is a ~~spark-ignition-(Otto-cycle)~~ an engine that cannot-be-adjusted-to-run is operated with an exhaust stream oxygen concentration ~~of-less~~ greater than one percent by volume.
- (4) An existing engine is a ~~stationary-internal combustion~~ an engine that prior to (date of adoption):

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- (A) Has been issued a valid Permit to Construct or Operate by the District, or
  - (B) Is in operation, including those operating pursuant to the provisions of District Rule 219 (b)(1), or
  - (C) Is subject to review due to submittal of an application for Permit to Construct and Operate which has been deemed complete by the Executive Officer,
- (5) Output is the shaft output from the ~~internal-combustion~~ engine plus energy reclaimed by any heat recovery system, subject to the approval of the Executive Officer.
- (6) Rated brake horsepower is the rating specified by the engine manufacturer.

## (b) Requirements

- (1) Owners and/or operators of more than 5,000 total installed rated brake horsepower of existing stationary ~~internal-combustion~~ engines shall participate in a program to demonstrate the effectiveness of methods for the reduction of oxides of nitrogen emissions from such engines, where:

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- (A) Rich-burn engines demonstrate that:
- (i) Oxides of nitrogen emissions do not exceed 0.28 micrograms per joule output (0.75 g/bhp-hr), or
  - (ii) These engines have been modified or equipped with control devices to reduce oxides of nitrogen emissions by 90 percent, or
  - (iii) Alternate emission limits of 48 ppm by volume oxides of nitrogen, corrected to 15 percent oxygen by volume, or limits as allowed by Attachment "A" are not exceeded, or
  - (iv) With control equipment installed and operating that the emission limits of rich-burn engines, subsections (i), (ii) and (iii) above, cannot be met. For such engines the Executive Officer may alter emission limits and require continuation of testing, after studying costs, to provide meaningful information.
- (B) Lean-burn engines demonstrate that:
- (i) Oxides of nitrogen emissions do not exceed 0.56 micrograms per joule output (1.5 g/bhp-hr), or

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- (ii) These engines have been modified or equipped with control devices to reduce oxides of nitrogen emissions by 80 percent,  
or
- (iii) Alternate emission limits of 96 ppm by volume oxides of nitrogen, corrected to 15 percent oxygen by volume, or limits as allowed by Attachment "A" are not exceeded, or
- (iv) With control equipment installed and operating that the emission limits of lean-burn engines, subsections (i), (ii) and (iii) above, cannot be met. For such engines the Executive Officer may alter emission limits and require continuation of testing, after studying costs, to provide meaningful information.



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(C) The number of demonstration engines to be selected for testing by each owner and/or operator are determined from the Table of Sample Requirements Rich-Burn engines and Table of Sample Requirements Lean-Burn Engines below, except for substitutions allowed by the Executive Officer, but the total test engine horsepower shall not exceed 10 five percent of the total horsepower of all engines and under the control of the same owner and/ or operator. ~~not-exempted-from-this-rule.~~

The engines selected for testing shall show as much diversification of engine model and control system as possible and the selection shall be subject to the approval of the Executive Officer.

## Proposed Rule 1110

## (i) TABLE OF SAMPLE REQUIREMENTS RICH-BURN ENGINES

No. of Rich-Burn Engines Operated in District each Operated @ Least 2,000 hr/yr	Ranges of Rated Brake Horsepower per Engine	No. of Demonstration Engines Required
<u>20</u> 10 or less	50 to 200	None
<u>21</u> 11 to 20 <u>50</u>	50 to 200	1
<u>51</u> 21 to 50 <u>80</u>	50 to 200	2
51-to--75-	50-to---200	3
76-to-100	50-to---200	4
over 100 <u>80</u>	50 to 200	5 <u>3</u>
<u>7</u> 4 or less	201 to 500	None
<u>8</u> 5 to 10 <u>15</u>	201 to 500	1
11-to--20	201-to---500	2
over 20 <u>15</u>	201 to 500	3 <u>2</u>
1 <u>7</u> or less	501 to 1,000	None
<u>8</u> 2 to 5 <u>15</u>	501 to 1,000	1
6-to--10	501-to-1,000	2
over 10 <u>15</u>	501 to 1,000	3 <u>2</u>
1 <u>4</u> or less	<u>over 1,000</u>	None
<u>5</u> 2 to 5 <u>10</u>	over 1,000	1
6-to--10	over-1,000	2
over 10	over 1,000	3 <u>2</u>

(ii) TABLE OF SAMPLE REQUIREMENTS FOR LEAN-BURN ENGINES

<u>No. Lean-Burn Engines Operated In District Each Operated at Least 2000 hr/yr.</u>	<u>Ranges of Rated Brake Horsepower Per Engine</u>	<u>No. Lean-Burn Demonstration Engines Req'd.</u>
<u>6 or less</u>	<u>500 and Greater over 500</u>	<u>None</u>
<u>7 to 15</u>	<u>500 and over 500</u>	<u>1</u>
<u>16 to 24</u>	<u>500 and over 500</u>	<u>2</u>
<u>Over 24</u>	<u>500 and over 500</u>	<u>3</u>

(D) Notwithstanding provisions of section (C), where an owner and/or operator has engines totaling more than 5,000 installed rated brake horsepower which operate more than 2,000 hours per year each, he shall provide at least one demonstration engine for the test program.

(E){D} The hours operated by test engines in the demonstration program shall be recorded in log books or by elapsed time recorders.

(F){E} The owner and/or operator shall submit to the Executive Officer the list by model and rating of all his engines, the list of selected test engines which are to be retrofitted with control devices or engine modifications, and the test plan, prepared following the guidelines provided by the Executive Officer, for the demonstration program

by (60 days after date of adoption). After approval of the selected test engines and test plan by the Executive Officer, the owner and/or operator shall:

- (i) Have rich burn engines modifications completed and control systems installed and operating within six months, and
  - (ii) Have lean burn engines modifications completed and control systems installed and operating within ~~twelve~~ twenty-four months, or
  - (iii) Have received approval from the Executive Officer for an extension in program schedule because of non-availability of control equipment and/or support services, or
  - (iv) Received approval from the Executive Officer for delay in program implementation, not to exceed 12 months, because of funding problems (for Public Service Agencies).
- (G) Sequential measurements for oxides of nitrogen reduction, along with measurements of concentrations of oxygen, carbon monoxide, carbon dioxide, total hydrocarbons, and non-methane hydrocarbons by method referenced in Attachment "B" or equivalent, are made by the owner and/or operator within the first month of operation and, at a minimum, after each 2,000 hours of operation or each 6 months of operation, whichever comes first. Measurements of ammonia shall be made if deemed necessary by the Executive Officer.

## Proposed Rule 1110

- (H) The test program continues for at least 12 consecutive months or until 4,000 hours of operation are accumulated for each test engine, whichever occurs first.
- (I) Breakdown or failure of control equipment to control oxides of nitrogen emissions within allowable limits of this rule during the program for periods exceeding forty-eight hours shall be summarized in a monthly report to the Executive Officer, ~~within five working days of a test interruption,~~ together with a description of the corrective measures undertaken and/or to be undertaken ~~to avoid a breakdown in the future.~~
- (J) Test results shall be reported to the Executive Officer within 60 days after completion of each test period.
- (2) After oxides of nitrogen control device installation or engine modifications a person shall not operate a test engine without periodic manual air-fuel ratio adjustments or automatic controls to minimize the discharge of carbon monoxide (CO) into the atmosphere.

## Proposed Rule 1110

- (3) Notwithstanding Rule 219, owners and/or operators of demonstration engines and/or control devices shall apply for permits to construct and operate the demonstration engines and/or control devices. A test engine with control equipment will be considered a single permit unit.
- (4) If an owner and/or operator participating in the test program meets the other requirements of this rule, the failure of his control equipment to meet the specified emission limits will not constitute a violation of the rule.
- (5) Owners and/or operators may apply engine test program results from this District and from other adjacent counties provided:
- (A) That the subject engine is, or would be considered in the case of an adjacent county, an existing engine; and
- (B) That other requirements of this rule are met; and
- (C) The control was not installed to comply with the requirements of any other non-demonstration rule or regulation, including mitigations provided as offsets or emission reductions credits for New Source Review, Prevention of Significant Deterioration, or Emission Banking.

## Proposed Rule 1110

- (6) Owners and/or operators may appeal to the South Coast Air Quality Management Hearing Board:
- (A) Any decision of the Executive Officer to continue a test program when costs are excessive.
- (B) A requirement to test selected engines which are deemed to be obsolete for purposes of application of NO<sub>x</sub> control technology.
- (C) Any decision of the Executive Officer to include an owner/operator in the test program, if such owner/operator is included in the program due to engines which will be permanently removed from service no later than three months after the dates specified in subsection (b)(1)(F)(i) or (b)(1)(F)(ii), as appropriate.
- (7) Engines tested in this demonstration program shall be permitted to operate with the NO<sub>x</sub> control system used under this rule for a period of ten years from (date of adoption) and shall not be subject to conditions of any other subsequent NO<sub>x</sub> rule during that ten year period.

## (c) Exemptions

- (1) The provisions of this rule shall not apply to:
- (A) Existing engines with less than 50 brake horsepower rating.
- (B) Existing non-carbureted turbocharged four-stroke and existing two-stroke Otto cycle engines all less

## Proposed Rule 1110

than 500 brake horsepower rating.

- (C) ~~(B)~~ ~~Internal-combustion~~ Engines used directly and exclusively for agricultural operation necessary for the growing of crops, or the raising of fowl or animals.
- (D) ~~(G)~~ Diesel cycle engines or gas turbines.
- (E) ~~(D)~~ Emergency standby ~~internal-combustion~~ engines which operate only as temporary replacements for primary mechanical or electrical power sources during periods of fuel or energy shortage or while the primary power source is undergoing repairs.
- (F) ~~(E)~~ Engines used exclusively for fire fighting operations.



## ATTACHMENT A

Alternative Emission Limit to Limit  
the Oxides of Nitrogen (NO<sub>x</sub>) Emissions  
from Stationary Internal Combustion Engines

For stationary internal combustion engines, emissions of oxides of nitrogen shall not exceed an emission limit as determined by the following equation:

$$\text{EMISSION LIMIT} = \frac{\text{STANDARD} \times \text{UNIT EFFICIENCY}}{\text{STANDARD EFFICIENCY}}$$

The STANDARD is 48 ppm NO<sub>x</sub> for rich-burn or 96 ppm for lean burn as corrected to 15% oxygen at an engine STANDARD EFFICIENCY of 30%.

UNIT EFFICIENCY = The total shaft output or the sum of the energies of shaft output and reclaimed heat from any heat recovery system divided by the energy input (as determined by a fuel measuring device accurate to  $\pm 5$  percent and based on the higher heating value of the fuel). Any engine which has a tested efficiency greater than 30 percent will be allowed the demonstrated efficiency as the unit efficiency. Any engine with an efficiency lower than 30 percent is allowed a 30 percent unit efficiency for the purpose of this limitation.

The volume concentration (ppm) of the oxides of nitrogen (NO<sub>x</sub>), shall be corrected to 15 percent oxygen (O<sub>2</sub>) on a dry basis as follows:

$$\text{PPM NO}_x (15\% \text{ O}_2) = \text{PPM NO}_x (\text{measured}) \times \frac{20.9\% - 15\%}{20.9\% - \% \text{O}_2 \text{ measured}}$$

## ATTACHMENT B

## Modified EPA Method 20

For the purpose of this rule, the following modifications shall be applied to EPA Reference Method 20 as published in the Federal Register on September 10, 1979.

1. General Note - All references to SO<sub>2</sub> or sulfur measurement shall be deleted.
2. Section 4.1.4 - The NO<sub>x</sub> to NO converter as shown in Figure 20.1 is normally integrated into the NO<sub>x</sub> analyzer. In addition, the deletion of the converter shall not be an option as it presently is in Method 20.
3. Section 4.3 - Calibration gases shall be at 0, 50 percent, and 90 percent of full scale. The full scale value shall be selected so that the measured value is approximately 50 percent of scale.
4. Section 6.1.2 - Delete all references to a preliminary O<sub>2</sub> traverse; however, O<sub>2</sub> shall be measured continuously during the test.
5. Section 6.1.2.1 - To allow for very small cross sections the minimum number of points shall be adjusted at the discretion of the Executive Officer.
6. Section 6.2 - Testing shall be at actual load conditions. The test period shall be a minimum of fifteen minutes per load condition to determine compliance initially. However, if the source is not in compliance after the initial fifteen minutes, the test shall be continued for

## ATTACHMENT B

at least one hour and forty-five minutes. The stack shall be traversed initially to determine the degree of stratification in the stack. Sampling time at each traverse point shall be a minimum of two minutes plus system response time. The remainder of the test period shall be with the probe inlet at the average point.

7. An ultimate analysis or equivalent shall be performed on the fuel fired using ASTM method D3178-74 or D3176 (liquid fuels) or D1946-67 (72) (gaseous fuels) as applicable, to determine the theoretical maximum concentration of CO<sub>2</sub> in the flue gases. The measured O<sub>2</sub> concentration in the flue gases shall not deviate by more than an amount specified by the Executive Officer, from the predicted O<sub>2</sub> concentration based on the concurrent CO<sub>2</sub> measurement and the ultimate analysis.

10/27/83

7-8-83  
SQAQMD

May 26, 1983

~~Proposed~~ Amended Rule 1111 - NO<sub>x</sub> 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  $\text{NO}_2$ ) 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:

Proposed Amended Rule 1111

(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:

$$N = \frac{4.566 \times 10^4 \times P \times U}{H \times C \times E}$$

$$N = \frac{3.655 \times 10^{10} \times P}{(20.9 - Y) \times Z \times E}$$

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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> in flue gas.

Z = heating value of gas, joules/Cu. Meter (0.0°C, 1 ATM).

Proposed Amended Rule 1111

(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.

9/14/92

(Adopted March 2, 1979)(Amended December 5, 1980)(Amended March 16, 1984)  
(Amended March 2, 1990)(Amended August 2, 1991)  
(Amended March 6, 1992)

**RULE 1115. MOTOR VEHICLE ASSEMBLY LINE COATING OPERATIONS**

(a) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) APPLICATION LINE is that 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.
- (2) MOTOR VEHICLES are all passenger cars, light-duty trucks, medium-duty vehicles and heavy-duty vehicles as defined in Section 1900, Title 13, California Administrative Code.
- (3) HOUSE CAR is any motor vehicle originally designed, or permanently altered, and equipped for human habitation as defined in Section 362 of the California Vehicle Code.
- (4) PRIMER is any or all coatings beneath the topcoat.
- (5) ELECTROPHORETIC APPLIED PRIMER is an undercoat applied by dipping the component in a coating bath with an electrical potential difference between the component and the bath.
- (6) SPRAY PRIMER is any primer, except primer surfacer, that is applied by spraying.
- (7) PRIMER SURFACER is a primer coat applied over an electrophoretically applied primer.
- (8) TOPCOAT is the final coating applied for the purpose of establishing the final color and/or protective surface.
- (9) BASE COAT/CLEAR COAT (BC/CC) is a topcoat consisting of a relatively thin layer of highly pigmented base coat followed by a thick layer of clear coat.
- (10) 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.
- (11) FINAL REPAIR is the final coating applied to correct topcoat imperfections after the complete assembly of the motor vehicle.



- (12) PURGE COLLECTION is the 100 percent capture of coating material which is released to clear spray system, such as for coating color change.
- (13) SOLVENT CLEANING OPERATION is 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.
- (14) TRANSFER EFFICIENCY is 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. For purposes of demonstration of technology equivalency, unless the owner/operator demonstrates an actual measured transfer efficiency, the transfer efficiencies shall be deemed to be:

<u>Application Method</u>	<u>Transfer Efficiencies (percent)</u>
Systems using line purging after each color change without any collection of purged materials:	
Air Atomized Spray (waterborne coating)	30
Air Atomized Spray (solvent-borne coating)	40
Manual Electrostatic Spray	62
Automatic Electrostatic Spray (low voltage)	62
Automatic Electrostatic Spray (high voltage)	75
Systems which include total collection of all purged materials:	
Air Atomized Spray (waterborne coating)	39
Air Atomized Spray (solvent-borne coating)	50
Manual Electrostatic Spray	75
Automatic Electrostatic Spray (low voltage)	75
Automatic Electrostatic Spray (high voltage)	95

## (15) EXEMPT COMPOUNDS are any of the following compounds:

## (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)

trichlorotrifluoroethane (CFC-113)

dichlorodifluoromethane (CFC-12)

trichlorofluoromethane (CFC-11)

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, or potentially toxic, or upper-atmosphere ozone depleters, or cause other environmental impacts. Specifically, the District Board has established a policy to phase out chlorofluorocarbons (CFC) on or before 1997.

## (b) Requirements

- (1) A person shall not apply any primer, electrophoretic applied primer, spray primer, primer surfacer, topcoat, and final repair coatings in any motor vehicle application line unless:

(A) After March 16, 1984, the volatile organic compound contents of the materials, as applied, do not exceed the limits set forth in (i) or (ii) below, and the application methods indicated in (i) or (ii) below are in practice.

		VOC Content, Less Water	
<u>Coating Steps</u>	<u>Application Method</u>	<u>g/L</u>	<u>(lb/gal)</u>
Electrophoretic Applied Primer	Electrophoretic Dip	145	(1.2)
Primer Surfacer	Air Atomized Spray (waterborne)	340	(2.8)
Spray Primer	Air Atomized Spray (waterborne)	275	(2.3)
Topcoat	Air Atomized Spray (waterborne)	380	(3.2)
Final Repair (all coats)	Air Atomized Spray (solvent-borne)	780	(6.5)

		VOC Content, Less Water	
<u>Coating Steps</u>	<u>Application Method</u>	<u>g/L</u>	<u>(lb/gal)</u>
Electrophoretic Applied Primer	Electrophoretic Dip	145	(1.2)
Primer Surfacer	Manual Electrostatic Spray	460	(3.8)
Spray Primer	Automatic Electro- static Spray	460	(3.8)
Topcoat	Manual Electrostatic Spray	590	(4.9)
Basecoat	Air Atomized Spray (solvent-borne)	590	(4.9)
Clearcoat Rigid	Manual Electrostatic Spray	405	(3.4)
Final Repair	Air Atomized Spray (solvent-borne)	590	(4.9)

(B) A person may comply with the requirements of subdivision (b) by means of an Alternative Emission Control Plan pursuant to Rule 108.

- (2) Solvent Cleaning Operations; Storage and Disposal of VOC-containing Materials  
On and after July 1, 1992, solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-containing materials used in solvent cleaning operations shall be carried out pursuant to Rule 1171 - Solvent Cleaning Operations.
- (3) Any motor vehicle application line exempt from all or a portion of this rule shall comply with the provisions of Rule 442.
- (4) Before September 16, 1984, owners and/or operators of motor vehicle assembly line coating operations shall submit to the Executive Officer a Coating Application Demonstration Test Plan to be used in establishing an 18-month program to demonstrate the feasibility of achieving further emissions reductions for coating steps.
  - (A) The plan shall include increments of progress toward the suggested emission limits, or equivalent, which are:
    - (i) 460 grams VOC per liter, as applied less water, when applied by automatic electrostatic spray for primer, primer surfacer and topcoats.
    - (ii) 590 grams VOC per liter, as applied less water, when applied by manual electrostatic spray, or 460 grams VOC per liter less water when applied by air atomized spray for repair coats.
  - (B) The test plan shall include provisions for evaluating coating purge collection equipment as a means of attaining higher transfer efficiency.
  - (C) The test results under the plan shall be reported at the end of each three-month period of operation.
  - (D) Tests conducted pursuant to an approved demonstration program and conducted with prior notification to the Executive Officer shall not constitute a violation of any permit to operate.

## (c) Methods

The VOC content of spray primer, primer surfacer, electrophoretic primer, and topcoat shall be determined by the methods specified in paragraph (c)(1) or (c)(2). VOC emissions determined to exceed any limits established by this rule, through the use of either of these sets of test methods, shall constitute a violation of the rule.

- (1) EPA Reference Method 24, (CFR Title 40, Part 60, Appendix A). Analysis done according to EPA Method 24 shall utilize Procedure B of ASTM Method D-2369, referenced within EPA Method 24. The exempt compound content shall be determined using SCAQMD Test Methods 302 and 303 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual) or;
- (2) SCAQMD Test Methods 302, 303, and 304 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual).

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 (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.

## (d) Exemptions

- (1) The provisions of subdivision (b) of this rule shall not apply to the following manufacturing operations:
  - (A) Other coating operations not associated with applying body primer and topcoat coatings to exterior sheet metal and body.
  - (B) Use of:
    - (i) Wheel Topcoat Application
    - (ii) Antirust Coatings
    - (iii) Trunk Coatings

**Rule 1115 (Cont.)**

**(Amended March 6, 1992)**

- (iv) Interior Coatings
  - (v) Flexible Coatings
  - (vi) Sealers and Deadeners
  - (vii) Plastic Parts
  - (viii) Accent and Stripe Coatings
- (2) Any house car assembly line shall not be required to comply with the provisions of paragraph (b)(4).

7/25/80  
Rule 1119 - Petroleum Coke Calcining Operations - Oxides  
of Sulfur

- (a) A person shall not operate petroleum coke calcining equipment unless the uncontrolled emissions of oxides of sulfur from such basic equipment, expressed as sulfur dioxide (SO<sub>2</sub>), are reduced by at least 80%.
- (b) Any equipment owner or operator subject to the provisions of section (a) of this rule shall comply with the following schedule of increments of progress:
- (1) By December 1, 1980, 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 this rule.
  - (2) By June 1, 1981, award the contract for an emission control system, or issue purchase orders for the component parts to accomplish emission control.
  - (3) By September 1, 1981, initiate on-site construction or installation of equipment to reduce or control emissions.
  - (4) By May 1, 1983, complete on-site construction or installation of equipment to reduce or control emissions.
  - (5) By July 1, 1983, assure final compliance with the provisions of this rule.

Adopted August 4, 1978

Rule 1120 - Asphalt Pavement Heaters

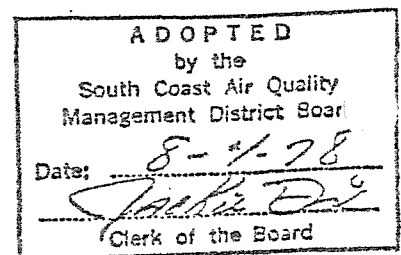
7/25/79

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<sub>2</sub>S, 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 contaminated 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.



4/2/80

Rule 1121 - Control of Nitrogen Oxides from Residential-Type Natural Gas Fired Water Heaters

(a) Definitions

For the purpose of this rule:

- (1) Water Heater is defined as a device that heats water at a thermostatically controlled temperature for delivery on demand.
- (2) Heat Output is defined as the product obtained by multiplying the recovery efficiency, as defined by Title 20, California Administrative Code, Chapter 2, Subchapter 4, Article 4, Sections 1603 and 1607, by the heating value of the input fuel furnished to the water heater.

(b) Requirements

After December 31, 1982, a person shall not sell or offer for sale within the South Coast Air Quality Management District:

- (1) Gas-fired stationary home water heaters that:
  - (A) Emit nitrogen oxides in excess of 40 nanograms of NO<sub>x</sub> (calculated as NO<sub>2</sub>) per joule (70 lb per billion BTU) of heat output.
  - (B) Are not certified in accordance with subparagraph (c).
- (2) Gas-fired mobile home water heaters that:
  - (A) Emit nitrogen oxides in excess of 50 nanograms of NO<sub>x</sub> (calculated as NO<sub>2</sub>) per joule (88 lb per billion BTU) of heat output.

- (B) Are not certified in accordance with subparagraph (c).

(c) Certification

- (1) The manufacturer shall have each water heater model tested in accordance with the following:

(A) Each tested water heater shall be operated in accordance with Section 2.4 of American National Standards ANSI Z21.10.1-1975 at normal test pressure, input rates, and with a five-foot exhaust stack installed during the nitrogen oxides emission tests.

(B) The measurement of nitrogen oxides emissions shall be conducted in accordance with United States Environmental Protection Agency test methods or other test methods approved by the Executive Officer.

- (2) The following calculation shall be used to determine the nanograms of  $\text{NO}_x$  per joule of heat output:

$$N = \frac{(4.566 \times 10) P U}{H C E}$$

Where

N = nanograms of  $\text{NO}_x$  emitted per joule of heat output

P = parts per million (volume)  $\text{NO}_x$  in flue gas

U = volume percentage of  $\text{CO}_2$  in water-free flue gas for stoichiometric combustion.

---

C = volume percentage CO<sub>2</sub> in water free flue gas

H = gross heating value of gas, Btu/ft (60°F,  
30" hg)

E = recovery efficiency, percentage

- (3) The manufacturer shall submit to the Executive Officer the following:
- (A) A statement that the model is in compliance with subparagraph (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 water heater rating plate.
  - (C) Description of each model being certified.
- (d) Identification of Complying Water Heaters
- The manufacturer shall display the model number of the water heater complying with subparagraph (b) on the shipping-carton and rating plate.
- (e) Enforcement
- (1) The Executive Officer may require the emission test results be provided when deemed necessary to verify compliance.
  - (2) 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 subparagraph (b).

(f) Exemption

The provisions of this rule shall not apply to:

- (1) Water heaters with a rated heat input of 75,000 BTU per hour or greater.
- (2) Water heaters used in recreation vehicles.

5/13/91

(Adopted May 4, 1979)(Amended April 4, 1980)(Amended Dec. 7 1990)

**RULE 1123. REFINERY PROCESS TURNAROUNDS**

**(a) Definition**

For the purpose of this rule, the following definition shall apply.

**VESSEL** means any container or structural envelope in which materials are processed or treated; it does not include any container whose principal purpose is material storage.

**(b) Requirements**

- (1) During refinery process turnaround, a person shall not depressurize any vessel containing organic materials unless the vapors released from the vessel are collected and contained for use as fuel or sent to a gas disposal system until the pressure in the vessel is below five pounds per square inch, gauge, or is within ten percent above the minimum gauge pressure at which the vapors can be collected, whichever is lower.
- (2) For every refinery that uses inert gas displacement or vacuum eduction for process turnaround, a person operating the refinery shall submit to the Executive Officer a plan which describes at least the following:
  - (A) the procedure used for gas displacement or eduction;
  - (B) the disposition of the displaced or educed organic gases;
  - (C) the stage in the displacement or eduction procedure at which the disposition is changed from a control facility to atmospheric venting, and
  - (D) the criteria by which said stage is identifiable.
- (3) The Executive Officer shall approve the plan upon his determination that it provides for the maximum feasible control of emissions of displaced or educed organic gases without causing damage to equipment, malfunction of pollution control or safety devices, or violations of safety regulations and without installation or structural modification equipment which is not needed to comply with subparagraph (b)(1) of this rule.
- (4) After approval of a plan, all displacement operations shall be conducted according to said plan unless another specifically approved plan is used.

(c) Recordkeeping

A refinery operator shall maintain a record of each refinery process unit turnaround containing at a minimum the date the unit was shut down, the approximate vessel hydrocarbon concentration when hydrocarbons were first discharged into the atmosphere, and the approximate amount of hydrocarbons emitted into the atmosphere. Such records shall be kept at the facility for at least two years, and shall be made available to District staff upon request.

(d) Exemptions

Any vessel, or group of vessels, that has been depressurized to less than five pounds per square inch, gauge, shall be exempted from the provisions of subparagraph (b)(2) by the Executive Officer upon determination by the Executive Officer that the use of existing control facilities to comply with subparagraph (b)(2) is likely to damage equipment, cause the malfunction of pollution control or safety devices, or cause violations of safety regulations.

5/13/93

(Adopted April 6, 1979)(Amended January 8, 1982)(Amended December 7, 1984)  
(Amended January 10, 1986)(Amended May 5, 1989)(Amended December 1, 1989)  
(Amended March 2, 1990)(Amended November 2, 1990)(Amended December 7, 1990)  
(Amended August 2, 1991)

**RULE 1125. METAL CONTAINER, CLOSURE, AND COIL COATING OPERATIONS**

(a) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) CLOSURE is any component which is used to close or seal a filled can, jar, or bottle.
- (2) COATING APPLICATOR is an apparatus used to apply a surface coating.
- (3) COATING LINE is an operation or process for applying, drying, or baking and/or curing surface coating, together with associated equipment, including a coating applicator, flash-off area, and oven.
- (4) COIL is any flat metal sheet or strip that is rolled or wound in concentric rings.
- (5) DRUM is any cylindrical metal shipping container larger than 12 gallons capacity but no larger than 110 gallons capacity.
- (6) END SEALING COMPOUND is a compound which is coated onto can ends and which functions as a gasket when the end is assembled onto the can.
- (7) 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.

- (8) EXTERIOR BASE COATING is a coating applied to the exterior of a can body, end, or flat sheet to provide protection to the metal or to provide background for any lithographic or printing operation.
- (9) EXTERIOR END COATING is a coating applied to the exterior end of a can to provide protection to the metal.
- (10) FOOD/BEVERAGE CAN means a metal container in which food or beverages intended for human or animal consumption are packaged.
- (11) HAND APPLICATION METHOD is the application of coating by manually held, non-automatic equipment. Such equipment includes paint brush, hand roller, trowel, spatula, dauber, rag, and sponge.
- (12) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a coating application system which is designed to be operated at air and fluid supply pressures to the gun of between 0.1 and 10.0 pounds per square inch gauge (psig).
- (13) INK is any coating used in any operation that imparts color, design, alphabet, or numerals on an exterior surface of a metal container, closure, or coil.
- (14) INTERIOR BASE COATING is a coating applied to the interior of a can body, end, or flat sheet to provide a protective lining between the product and the can.

- (15) INTERIOR BODY SPRAY is a coating sprayed on the interior of the can body to provide a protective film between the product and the can.
- (16) METAL CONTAINER, CLOSURE, AND COIL COATING is any coating containing organic materials and applied by spray, roller, or other means to the inside and/or outside surfaces of metal cans, drums, pails, lids, closures, or to the surface of flat metal sheets, strips, rolls, or coils for further industrial or commercial use.
- (17) NECKER LUBRICANT is any fluid or solid lubricant applied to a can forming tool to reduce friction while reducing the can diameter to form a neck.
- (18) OVERVARNISH is a coating applied directly over a design coating to reduce the coefficient of friction, to provide gloss, and to protect the finish against abrasion and corrosion.
- (19) PAIL is any cylindrical metal shipping container of from 1-gallon to 12-gallon capacity and constructed of 29 gauge or heavier material.
- (20) SOLVENT CLEANING OPERATION is 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.
- (21) THREE-PIECE CAN SIDE SEAM SPRAY is a coating sprayed on the exterior and/or interior of a welded, cemented, or soldered seam to protect the exposed metal.
- (22) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound containing the element carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, methane, and exempt compounds.

(b) Requirements

A person shall not use or apply any coating on any coating line of the type designated below which contains any volatile organic compound in excess of the following limits:

<u>COATING</u>		<u>VOC LIMITS</u>	
		<u>Grams per Liter of Coating, Less Water and Less Exempt Compounds</u>	
		<u>g/L</u>	<u>lb/gal</u>
(1)	Can Coating Lines		
(A)	Three-Piece Can Sheet Basecoat (exterior and interior and overvarnish)	225	1.9
(B)	Two-Piece Can Exterior Basecoat and Overvarnish	250	2.1
(C)	Inks	300	2.5
(D)	Can Interior Body Spray		
	(i) Two-Piece Can	440	3.7
	(ii) Three-Piece Can	510	4.2
(E)	Three-Piece Can Side Seam Spray	660	5.5
(F)	End Sealing Compound		
	(i) Food/Beverage Cans	440	3.7
	(ii) Non-Food Cans	440	3.7
	(After March 1, 1991)	0	0
(G)	Drums, Pails, and Lids		
	(i) New		
	Exterior	340	2.8
	Interior	420	3.5
	(ii) Reconditioned		
	Exterior	420	3.5
	Interior	510	4.2
(H)	Necker Lubricants	100	0.8
(2)	Coil Coating	200	1.7
(3)	Owners and/or operators may comply with the provisions of subparagraph (b)(1), (b)(2), and/or (b)(6) 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), (B), and (C).		
	(A) The control device shall reduce emissions from an emission collection system by at least 95 percent, by weight.		
	(B) The emission collection system which collects and transports emissions to an air pollution control device shall satisfy at least one of the following conditions:		

- (i) the owner/operator demonstrates that the system collects at least 90 percent, by weight, of the emissions generated by the sources of emissions; or
  - (ii) the system is constructed and operated in accordance with guidelines published in the 20th edition of the *Industrial Ventilation Manual* by the American Conference of Governmental Industrial Hygienists.
- (C) The emission collection and emission reduction provisions of subparagraphs (b)(3)(A) and (b)(3)(B) shall be determined separately for the compounds listed in section (b)(7) and the total amount of VOC emissions less the compounds listed in section (b)(7).
- (4) Alternative Emission Control Plan  
Owners and/or operators may comply with the provisions of subparagraph (b)(1) and/or (b)(2) by means of an Alternative Emission Control Plan pursuant to Rule 108.
- (5) Transfer Efficiency  
A person or facility shall not coat unless the coating is applied with properly operating equipment, according to operating procedures specified by the equipment manufacturer or the District's Office of Operations, and by the use of one of the following methods:
  - (A) electrostatic application; or
  - (B) flow coat; or
  - (C) roll coat; or
  - (D) dip coat; 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 to be capable of achieving at least 65 percent transfer efficiency and for which written approval of the Executive Officer has been obtained.

(6) Solvent Cleaning Operations; Storage and Disposal of VOC-containing Materials

On and after July 1, 1992, solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-containing materials used in solvent cleaning operations shall be carried out pursuant to Rule 1171 - Solvent Cleaning Operations.

(7) Prohibited Coating Solvents

A person shall not sell, offer for sale, use, or apply any coating applied to any metal container, closure, or coil subject to the provisions of this rule containing the following exempt compounds:

methylene chloride,  
trifluoromethane (FC-23),  
trichlorotrifluoroethane (CFC-113),  
dichlorodifluoromethane (CFC-12),  
trichlorofluoromethane (CFC-11),  
dichlorotetrafluoroethane (CFC-114), and  
chloropentafluoroethane (CFC-115).

(8) A person shall not sell or offer for sale for use in the District any coating which contains volatile organic compounds in excess of the limits specified in this rule for any application governed by this rule unless the label on the product or the data sheets for the product clearly bear the warning that the coating shall not be used unless compliance with the rule can be achieved.

(c) Recordkeeping Requirements

Notwithstanding provisions of paragraph (h), records shall be maintained pursuant to Rule 109, except that usage records for complying inks may be grouped by ink categories and each category constitutes a different VOC content.

(d) Determination of VOC Content

The volatile organic content of coatings subject to the provisions of this rule shall be determined by the procedures detailed in EPA Test Method 24 (40CFR60, Appendix A), or an equivalent method approved by the Executive Officer.

## (e) Test Methods

Efficiency of the control device shall be determined according to EPA Method 25, 25A, or SCAQMD Test Method 25.1. 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.

## (f) Prohibition of Specification

(1) A person shall not solicit or require any other person to use, in the District, any coating or combination of coatings to be applied to any metal container, closure, or coil 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 (AECPP) approved pursuant to the provisions of subparagraph (b)(4) of this rule.

(2) The requirements of this paragraph shall apply to all written or oral agreements executed, entered into, or renewed including options after December 1, 1989.

## (g) Effective Dates

(1) The operator of any metal container, closure, or coil coating operation subject to this rule shall comply with the provisions of this rule in accordance with the effective dates indicated in the requirements section of this rule.

(2) Until the effective dates indicated in the requirements section of this rule, the operator of any metal container, closure, or coil coating operation shall comply with the provisions of Rule 442 or this rule, but is not required to comply with both.

(3) Any metal container, closure, or coil coating operation or facility which is exempt from all or a portion of this rule shall comply with the provisions of Rule 442.

## (h) Exemptions

(1) The provisions of this rule shall not apply to the spray coating of one gallon per day or less of coatings at a single facility.

9/14/92

(Adopted February 2, 1979)(Amended January 8, 1982)(Amended May 5, 1989)  
(Amended Nov. 2, 1990)(Amended Dec. 7, 1990)(Amended August 2, 1991)  
(Amended March 6, 1992)

**RULE 1126. MAGNET WIRE COATING OPERATIONS**

(a) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I

- trifluoromethane (FC-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)
- trichlorotrifluoroethane (CFC-113)
- dichlorodifluoromethane (CFC-12)
- trichlorofluoromethane (CFC-11)
- dichlorotetrafluoroethane (CFC-114)
- chloropentafluoroethane (CFC-115)

Use of Group II compounds or carbon tetrachloride may be restricted in the future because they are toxic, or potentially toxic, or upper-atmosphere ozone depleters, or cause other environmental impacts.

Specifically, the District Board has established a policy to phase out chlorofluorocarbons (CFC) on or before 1997.

- (2) MAGNET WIRE is wire used in electro-magnetic field application in electrical machinery and equipment, such as transformers, motors, generators, and magnetic tape recorders.
- (3) MAGNET WIRE COATING OPERATIONS is the varnish or enamel on magnet wire where the wire is continuously drawn through a coating applicator.
- (4) SOLVENT CLEANING OPERATION is 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.
- (5) VOLATILE ORGANIC COMPOUND (VOC) is defined as any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

(b) Requirements

- (1) A person shall not apply any magnet wire coating which contains more than 200 g/liter (1.67 lb/gal) excluding water and exempt compounds, of volatile organic compounds, or
- (2) The volatile organic compounds emitted during the entire coating, drying, and curing operations have been reduced:
  - (A) by 90 percent or more by direct incineration at 1499°F or higher, or
  - (B) in a manner determined by the Executive Officer to be no less effective than (b)(2)(A).
- (3) Solvent Cleaning Operations; Storage and Disposal of VOC-Containing Materials  
On and after July 1, 1992, solvent cleaning of application equipment, 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 pursuant to Rule 1171 - Solvent Cleaning Operations.

(c) Recordkeeping Requirements

Records shall be maintained pursuant to Rule 109.

(d) Test Methods

(1) The volatile organic content of coatings subject to the provisions of this rule shall be determined by using the methods specified in paragraph (d)(1) or (d)(2) VOC emissions determined to exceed any limits established by this rule, through the use of either of these sets of test methods, shall constitute a violation of the rule.

(A) EPA Reference Method 24, (CFR Title 40, Part 60, Appendix A). Analysis done according to EPA Method 24 shall utilize Procedure B of ASTM Method D-2369, referenced within EPA Method 24. The exempt compound content shall be determined using SCAQMD Test Methods 302 and 303 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual) or;

(B) SCAQMD Test Methods 302, 303, and 304.

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 (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.

(2) Efficiency of the control device shall be determined according to EPA Method 25, 25A, or SCAQMD Test Method 25.1. 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.

(e) Exemptions

The provisions of subdivision (b) shall not apply to:

- (1) Magnet wire coating operations which emit into the atmosphere less than 1 kg (2.2 lbs) per hour, but not more than 5 kg (11 lbs) per day of volatile organic compounds.
- (2) Coating of electrical machinery and equipment sub-assemblies, such as motor housings.
- (3) The exemptions described in paragraphs (e)(1) and (e)(2) shall not apply to aerosol container applications after January 1, 1992.

Proposed Rule 1140 - Abrasive Blasting

4/2/80

(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.



9/14/92

(Adopted July 8, 1983) (Amended November 2, 1984)(Amended Dec. 7, 1990)  
(Amended April 3, 1992)

**RULE 1141. CONTROL OF VOLATILE ORGANIC COMPOUND EMISSIONS FROM RESIN MANUFACTURING**

(a) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) BLENDING TANK is a vessel in which resin and/or solvent and/or other materials are added, normally to produce a final product blend.
- (2) COMPLETED RESIN is resin solids, solvents, and additives as delivered for sale or use.
- (3) CONDENSER is a jacketed tube which has a cooling fluid, often water, flowing through the jacket and which cools and liquefies gases entering the inside of the tube.
- (4) CONTINUOUS POLYSTYRENE PROCESS is the reaction of styrene and other ingredients and the purification of the reaction products, to produce a normally uninterrupted flow of resin.
- (5) DILUENT RECOVERY SECTION consists of equipment used to separate process diluent from reaction by-products.
- (6) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I

- chlorodifluoromethane (HCFC-22)
- trifluoromethane (HFC-23)
- dichlorotrifluoroethane (HCFC-123)
- 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
- pentafluoroethane (HCFC-125)
- 1,1,1,2-tetrafluoroethane (HCFC-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)

trichlorotrifluoroethane (CFC-113)

dichlorodifluoromethane (CFC-12)

trichlorofluoromethane (CFC-11)

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 upper atmospheric ozone depleters, or cause other environmental impacts. The District Board has established a policy to phase out chlorofluorocarbons (CFC) on or before 1997.

- (7) HIGH-DENSITY POLYETHYLENE RESIN is a linear thermoplastic polymer of ethylene with a density of greater than 0.94 grams per cubic centimeter.
- (8) LIQUID-PHASE HIGH-DENSITY POLYETHYLENE SLURRY PROCESS is the reaction of ethylene and other ingredients, and the purification of the reaction products, to produce a normally uninterrupted flow of high-density polyethylene resin.
- (9) LIQUID-PHASE POLYPROPYLENE PROCESS is the reaction of propylene and other ingredients, and the purification of the reaction products, to produce a normally uninterrupted flow of resin.
- (10) ORGANIC RESIN REACTOR is any piece of equipment in which organic and/or other materials are reacted to produce an organic resin. A reactor may include a stripping column, condensers, and a water separator, whose purpose is to return the evaporated solvent to the reaction vessel.
- (11) PRODUCT FINISHING SECTION consists of equipment used to dry, extrude, pelletize, or otherwise prepare completed resin prior to packaging or storage.
- (12) RECYCLE TREATERS consist of equipment which removes water and other impurities in the recycle ethylene stream.
- (13) RESIN, as defined by the American Society for Testing Materials (ASTM),

is a solid or semi-solid, water-insoluble, organic material with little or no tendency to crystallize and is used as the basic components of plastics and/or as a component of surface-coating formulations.

- (14) RESIN MANUFACTURER is a person who reacts organic compounds to produce a resin and is classified as 2821 in the Standard Industrial Classification Manual (Office of Management and Budget, Executive Office of the President).
- (15) SLURRY VACUUM FILTER SYSTEM consists of equipment used to separate atactic and isotactic polymer.
- (16) STYRENE RECOVERY SYSTEM consists of equipment that separates styrene monomer from reaction by-products.
- (17) THINNING TANK is a vessel which receives resin and/or other reaction products from an organic resin reactor and to which solvents may be added.
- (18) VACUUM DEVOLATILIZER SYSTEM consists of equipment used in the vacuum separation of polystyrene from styrene monomer and reaction by-products.
- (19) VENT is a port or opening that allows gases to discharge to the atmosphere when leaving a reactor or other equipment. Where a product recovery condenser is used, the vent is the point of discharge from the condenser to the atmosphere.
- (20) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates and carbides, ammonium carbonate, and exempt compounds.

(b) Requirements

- (1) A resin manufacturer shall not manufacture organic resin unless the total emissions of volatile organic compounds (VOC), from the organic resin reactor, thinning tank and blending tank vents, before being vented to the atmosphere, are reduced:
  - (A) to 0.5 pound per 1000 pounds of completed resin produced, or
  - (B) by 95 percent or more.
- (2) A resin manufacturer shall not manufacture organic resin by a continuous polystyrene process unless the total emissions of VOC from vacuum

devolatilizer system and styrene recovery system, before being vented into the atmosphere, are reduced to 0.12 pound per 1000 pounds of completed resin produced.

- (3) A resin manufacturer shall not manufacture organic resin by a liquid-phase high-density polyethylene slurry process unless the total emissions of VOC from the organic resin reactor, recycle treaters, thinning tank, blending tank and product finishing section, before being vented to the atmosphere are reduced by 98 percent or more.
- (4) A resin manufacturer shall not manufacture organic resin by a liquid-phase polypropylene process unless the total emissions of VOC from the organic resin reactor, slurry vacuum filter system, diluent recovery section, and product finishing section vents, before being vented to the atmosphere, are reduced by 98 percent or more.

(c) Recordkeeping Requirements

A resin manufacturer shall maintain daily records. Such records shall be kept at the facility for at least two years, and shall be made available to the District upon request. The records shall include the following:

- (1) the amount and type of each resin produced;
- (2) daily VOC emissions.

(d) Compliance Test Methods

For the purpose of this rule, the following test methods shall be used:

- (1) 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.
- (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:
  - (A) For total organics: USEPA Test Methods 25, 25A, or SCAQMD Method 25.1;
  - (B) For exempt compounds: USEPA Method 18, or ARB Method 422.

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 the rule.

- (3) The following classes of compounds will be considered for compliance with subdivision (b), only if the manufacturer specifies which individual compounds are present in the coating formulations or process and identifies the test methods approved by the USEPA and SCAQMD that can be used to quantify the amounts of each exempt compound: 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.

(e) Exemptions

The provisions of subdivision (b) shall not apply to any facility that emits less than a total of ten pounds of volatile organic compounds per day to the atmosphere from all of the equipment subject to this rule.

3/14/84

September 28, 1983

~~Proposed~~ 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.

Proposed Rule 1141.1

- (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.

Proposed Rule 1141.1

(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.



Proposed Rule 1141.1

- (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

Proposed Rule 1141.1

- (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.

ADOPTED  
by the  
South Coast Air Quality  
Management District Board.  
Date: 11-4-83  
[Signature]  
Clerk of the Board

10/19/84

~~April 24, 1984~~

~~Proposed~~ Rule 1141.2 - Surfactant Manufacturing

*Amended 9/6/84*

(a) Definitions

For the purpose of this rule the following definitions shall apply:

- (1) REACTIVE ORGANIC GASES (ROG) means any gaseous 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.
- (2) A SURFACTANT is a surface-active agent, which is any compound that reduces surface tension or interfacial tension, when in solution. Surfactants are divided into three categories: detergents, wetting agents, and emulsifiers.
- (3) A SURFACTANT MANUFACTURER is a person who produces a synthetic surfactant, most commonly by reacting an organic compound with a sulfonating or sulfating compound.
- (4) A VENT is a port or opening whose function is to allow gases to discharge to the atmosphere when leaving a reactor or other equipment.
- (5) A SURFACTANT REACTOR is any equipment in which organic and/or other materials are reacted to produce a surfactant; this may include stripping columns, condensers, and water separators.
- (6) A CONDENSER is a jacketed tube which has a cooling fluid, often water, flowing through the jacket and which cools and liquifies gases flowing through the inside of the tube.
- (7) A DEGASSER is any piece of equipment which removes dissolved gases from liquids.

- (8) A NEUTRALIZER is any piece of equipment in which materials are added to a liquid in order to change the acidity or alkalinity of the liquid.
- (9) A STRIPPER is any piece of equipment which removes a material from a mixture of materials.
- (10) A MINERALIZER is any piece of equipment in which minerals or chemicals, such as lime or iodine, are suspended in a surfactant.
- (11) SURFACTANT MANUFACTURING EQUIPMENT includes any or all of the following equipment: surfactant reactors, process condensers, degassers, neutralizers, strippers, and mineralizers.

(b) Requirements

After July 1, 1986 a surfactant manufacturer shall not produce surfactants unless:

- (1) the total emissions of reactive organic gases (ROG) from the surfactant manufacturing equipment, before being vented to the atmosphere, are reduced:
  - (A) to 0.5 pound per 1000 pounds of surfactant produced, or
  - (B) by 95 percent (wt.) or more; and
- (2) all ports used for inspection, taking samples, or adding ingredients are closed when not in use.

(c) Compliance

- (1) A surfactant manufacturer shall:
  - (A) On or before January 1, 1985, submit for District approval, a Compliance Plan describing the methods and equipment to be used to achieve compliance with subsection (b)(1)(A) or (b)(1)(B), and

(B) On or before July 1, 1986, submit applications for new permits to construct or operate, as necessary, for new or modified equipment involved in such methods.

(2) On or after July 1, 1986 a surfactant manufacturer shall operate under the approved conditions specified in the Compliance Plan for compliance with subsection (b)(1), and/or under conditions included in permits to construct or operate issued for applications submitted pursuant to subsection (c)(1)(B).

(d) Exemptions

The provisions of this rule shall not apply to:

- (1) Soap manufacturing operations,
- (2) Facilities that only blend and package surfactants,
- (3) Equipment that uses exclusively organic materials which have a vapor pressure less than 5 mm of Hg at 20°C, and
- (4) Facilities that emit less than 5 pounds of ROG from surfactant manufacturing equipment in each and every day.

(e) Fees

For the purpose of determining the appropriate processing fees only, the filing of a Compliance Plan(s) as provided in subsection (c)(1) shall be considered the equivalent of filing an application for a permit. The person submitting the Plan shall be assessed a filing and an 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)
    - chlorodifluoromethane (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:

$$\begin{aligned} &\text{Grams of VOC per Liter of Coating, Less Water and} \\ &\text{Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}} \end{aligned}$$

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	
	<u>Less Water and Less Exempt Compounds</u>	
	<u>g/L</u>	<u>lbs/gal</u>
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	
	<u>Less Water and Less Exempt Compounds</u>	
	<u>g/L</u>	<u>lbs/gal</u>
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.

11-5-82

2/3/83

~~September 23, 1982~~

*Adopted*

Proposed Rule 1148 - Thermally Enhanced Oil Recovery Wells

(a) Definitions

- (1) OPERATE means to perform any activity with or on any crude oil production well including, but not limited to pumping, venting, maintaining, or repairing.
- (2) 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.
- (3) PRODUCTION ZONE means a formation or group of formations of oil bearing material beneath the surface of the ground through which steam can travel from a steam injection well to an oil production well.
- (4) STEAM DRIVE WELL means any crude oil production well that is completed in the same production zone as is a steam injection well, that is either operated by the person injecting the steam or responding to steam injection under a contractual agreement with the operator of the steam injection well, and that is within a:
  - (A) 250 foot radius of the steam injection well, if the steam injection well is within a 2 1/2 acre or smaller production well pattern; or
  - (B) 350 foot radius of the steam injection well, if the steam injection well is within a production well pattern of 5 acres or small but larger than 2 1/2 acres; or



- (C) 500 foot radius of the steam injection well, if the steam injection is within a production well pattern larger than 5 acres; or
  - (D) 1,000 foot radius of the steam injection well, if the production well is not in one of the above specified patterns.
- (5) STEAM INJECTION WELL is a well into which steam is injected to increase the production of oil from adjacent wells.
  - (6) CYCLIC STEAM WELL is any producing well in which steam is injected and production resumes after a soaking period.
  - (7) BEING SERVICED means being maintained, inspected, repaired and/or adjusted.
- (b) Requirements
- (1) No person shall operate a steam drive well unless the ROG emissions from the well are 4.5 pounds per day or less; or
  - (2) If steam drive wells are connected to a vapor control system, ROG emissions from the control system shall average no more than 4.5 pounds per day per connected well.
- (c) Compliance
- (1) The operator of any new steam drive well, or any non-steam drive well converted to a steam drive well, who begins drive operations on or after the date of adoption of this rule shall comply with the provisions of this rule not later than 12 months after steam injection commences.
  - (2) The operator of any oil production well operated as a steam drive well prior to the date of adoption of this rule:
    - (A) Shall be in full compliance with the provisions of this rule by 19 months after adoption of this rule; and

- (B) For any operator who chooses to control the emissions from the well by installing a vapor control system shall comply with the following schedule of increments of progress:
- (i) Upon adoption of this rule, submit to the Executive Officer a final control plan which describes, as a minimum the steps, including construction schedules, that will be taken to achieve compliance with the provisions of this rule and an application for authority to construct the proposed vapor control system.
  - (ii) Three months after adoption of this rule, provided documentation to the Executive Officer that contracts or purchase orders for the control system and component parts have been issued.
  - (iii) Nine months after adoption of this rule, initiate on-site construction or installation of the vapor control system.
  - (iv) Seventeen months after adoption of this rule, complete on-site construction of the vapor control system.
  - (v) Nineteen months after adoption of this rule, demonstrate full compliance with the provisions of this rule.
- (3) Compliance testing shall be performed annually by the operator of vapor control systems used to control emissions from steam drive wells. The testing shall be performed during June, July, August, or September of each year. The operator shall notify the Executive Officer 30 days before testing begins and shall have a record of tests available, upon request by the Executive Officer, not later than 30 days after completion of the tests.

(d) Exemptions

- (1) The Executive Officer may allow an exemption from the requirements of this rule for any steam drive well during the times that the well-head is opened to the atmosphere when the well is being serviced.
- (2) Any steam drive well defined by paragraph (a)(4)(D) is exempt from the provisions of this rule if the operator shows to the satisfaction of the Executive Officer that the temperature at the wellhead of produced oil and water has been increased by less than thirty Fahrenheit degrees (16.7 Celsius degrees) above the temperature at the wellhead of oil and water that was produced before steam injection was commenced.
- (3) Any steam drive well defined by paragraph (a)(4)(D) into which steam has been injected is exempt from the provisions of this rule for six months from the most recent date of such steam injection, provided that the amount of steam expressed as water injected during the most recent injection is more than 2,000 barrels and that:
  - (A) Steam is injected more frequently than once every 45 days; or
  - (B) For such wells that are steamed less frequently than once every 45 days, there is no visible vapor plume when the casing vent is open and the ambient air temperature is sixty degrees Fahrenheit (33.3 Celsius degrees) or greater, 45 days after steam injection has ceased; and
  - (C) Records are made available, upon request, to the Executive Officer of:
    - (i) date of injection.
    - (ii) the amount of steam injected expressed as volume of water.

- (4) Any vapor control system and connected steam drive wells are exempt from subsection (c)(3) if the requirements of (b)(2) have initially been met and the ROG leaving the system is vented into a fuel gas or other approved gas gathering system.

(Adopted July 8, 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 September 6, 1991)

**RULE 1151.            MOTOR VEHICLE AND MOBILE EQUIPMENT  
NON-ASSEMBLY LINE COATING OPERATIONS**

(a)    **Applicability**

This rule is applicable to all coating operations of Group I vehicles and equipment and Group II vehicles, as defined in paragraphs (b)(19) and (b)(20) of this rule, or their existing parts and components, for the purpose of on-site refinishing and modification except Original Equipment Manufacturer (OEM) coatings applied at manufacturing plants. Facilities with coating operations considered within the scope of this rule include: autobody repair/paint shops, production autobody paint shops, new car dealer repair/paint shops, fleet operator repair/paint shops, custom-made car fabrication facilities, and truck body-builders. Motor vehicle assembly-line coating operations are subject to Rule 1115, whereas the application of coatings on a vehicle which is not self-propelled, such as trailers and mobile homes, are subject to other source specific rules contained in Regulation XI.

(b)    **Definitions**

For the purposes of this rule, the following definitions shall apply:

- (1)    **ACRYLIC ENAMEL** is an enamel coating derived from an acrylic polymer containing hydroxyl functionality.
- (2)    **ADHESION PROMOTER** is a coating applied over both an existing non-sanded topcoat, and the coated area immediately adjacent to the non-sanded topcoat, to promote the adhesion of a subsequent topcoat. No topcoat, primer, primer sealer, or primer surfacer shall be classified as an adhesion promoter.
- (3)    **ALKYD ENAMEL** is an enamel coating derived from any of several different synthetic resins made by heating together a polybasic acid, such as phthalic or maleic acid, and a polyhydric alcohol, such as glycerin or a glycol.
- (4)    **ANTI-GLARE SAFETY COATING** is 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.

- (5) BASECOAT is a pigmented topcoat which is the first topcoat applied as part of a multistage topcoat system.
- (6) BASECOAT/CLEARCOAT TOPCOAT SYSTEM is a topcoat system composed of a basecoat portion and a clearcoat portion. The VOC content of a basecoat/clearcoat topcoat system shall be calculated according to the following formula:

$$\text{VOC}_{\text{ms}} = \frac{\text{VOC}_{\text{bc}} + 2 \text{VOC}_{\text{cc}}}{3}$$

Where:

$\text{VOC}_{\text{ms}}$  is the composite VOC content, less water and less exempt compounds to be used for compliance determination under the multistage topcoat system coating category.

$\text{VOC}_{\text{bc}}$  is the VOC content, less water and less exempt compounds as applied, of any given basecoat.

$2 \text{VOC}_{\text{cc}}$  is two times the VOC content, less water and less exempt compounds as applied, of any given clearcoat.

- (7) BRIGHT METAL TRIM REPAIR COATING is a coating applied directly to chrome-plated metal surfaces for the purpose of appearance.
- (8) BUS is 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.
- (9) CLEARCOAT is a topcoat which contains no pigments or only transparent pigments and which is the final topcoat applied as a part of a multistage topcoat system.
- (10) COATING is a material which is applied to a surface and which forms a film in order to beautify and/or protect such surface.
- (11) ELASTOMERIC MATERIALS are coatings which are specifically formulated and applied over coated or uncoated flexible plastic substrates for the purpose of adhesion.
- (12) ELECTROSTATIC APPLICATION is charging of atomized paint droplets for deposition by electrostatic attraction.

- (13) ENAMEL is a coating that cures by chemical cross-linking of its base resin. Enamels can be readily distinguished from lacquers because enamels are not resolvable in their original solvent.
- (14) EXEMPT COMPOUNDS are any of the following compounds which have been determined to be non-precursors of ozone:

(A) Group I (General)

trifluoromethane (HFC-23)  
chlorodifluoromethane (HCFC-22)  
dichlorotrifluoroethane (HCFC-123)  
tetrafluoroethane (HFC-134a)  
dichlorofluoroethane (HCFC-141b)  
chlorodifluoroethane (HCFC-142b)  
cyclic, branched, or linear, completely fluorinated alkanes  
cyclic, branched, or linear, completely fluorinated ethers with  
no saturations  
cyclic, branched, or linear, completely fluorinated tertiary  
amines with no saturations  
sulfur-containing perfluorocarbons with no saturations and  
with sulfur bonds only to carbon and fluorine

(B) Group II (Under Review)

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. The District Board has established a policy to phase out chlorofluorocarbons (CFC) on or before 1997.

- (15) EXTREME-PERFORMANCE TOPCOAT is a topcoat used on the surface of Group I vehicles and mobile equipment, and which qualifies under the provisions of section (h).

- (16) GENERAL TOPCOAT is any type of topcoat except extreme-performance topcoat, metallic topcoat, and any topcoat applied as part of a multistage topcoat system.
- (17) 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 shall be calculated by the following equation:

Grams of VOC per Liter of Coating, Less

$$\text{Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

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

- (18) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and shall 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

- (19) GROUP I VEHICLES AND EQUIPMENT are large-sized trucks, buses, and mobile equipment.
- (20) GROUP II VEHICLES are passenger cars, small-sized trucks and vans, medium-sized trucks and vans, motor homes, and motorcycles.
- (21) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is an equipment used to spray a coating by means of a gun that operates between 0.1 and 10 psig air pressure.



- (22) HIGHWAY is a way or place of whatever nature, publicly maintained and open to the public for purposes of vehicular travel. Highway includes street.
- (23) IMPACT RESISTANT COATING is any coating applied to a rocker panel for the purpose of chip resistance to road debris.
- (24) LACQUER is a coating which dries primarily by solvent evaporation, and hence is resolvable in its original solvent.
- (25) METALLIC/IRIDESCENT TOPCOAT is a topcoat which contains iridescent particles, composed of either metal as metallic particles or silicon as mica particles, in excess of 5 g/L (0.042 lb/gal) as applied, where such particles are visible in the dried film.
- (26) MIDCOAT is a semi-transparent topcoat which is the middle topcoat applied as part of a three-stage topcoat system.
- (27) MOBILE EQUIPMENT is self-propelled equipment which is physically capable of being driven on a highway. Mobile Equipment includes: construction (mobile crane, bulldozer, concrete mixer), farming (wheel tractor, plow, pesticide sprayer), and miscellaneous (street cleaners, golf carts, hauling equipment used inside and around an airport, dock, depot, and industrial and commercial plants).
- (28) MOTOR HOME is any motor vehicle originally designed, or permanently altered, and equipped for human habitation as defined in Section 362 of the California Vehicle Code.
- (29) MOTOR VEHICLE is a vehicle which is self-propelled and which is physically capable of being driven on a highway.
- (30) MOTORCYCLE is 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.
- (31) MULTISTAGE TOPCOAT SYSTEM is any basecoat/clearcoat topcoat system or any three-stage topcoat system, manufactured as a system, and used as specified by the manufacturer.

- (32) PASSENGER CAR is any motor vehicle designed primarily for transportation of persons and having a design capacity of 12 persons or less.
- (33) POLYURETHANE ENAMEL is an enamel coating derived from a thermosetting polymer produced by the condensation reaction of a polyisocyanate and a hydroxyl-containing material.
- (34) PRECOAT COATING is a coating applied to bare metal primarily to deactivate the metal surface for corrosion resistance to a subsequent water-base primer.
- (35) 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 bare metal surfaces to provide corrosion resistance and adhesion.
- (36) PRIMER is a coating applied for purposes of corrosion resistance or adhesion of subsequent coatings.
- (37) PRIMER SEALER is a coating applied prior to the application of a topcoat for the purpose of color uniformity, or to promote the ability of an underlying coating to resist penetration by the topcoat.
- (38) PRIMER SURFACER is a coating applied for the purpose of corrosion resistance or adhesion, and which promotes a uniform surface by filling in surface imperfections.
- (39) ROCKER PANEL is the panel area of a motor vehicle which is no more than ten inches from the bottom of a door, quarter panel or fender.
- (40) RUBBERIZED ASPHALTIC UNDERBODY COATING is 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.
- (41) STENCIL COATING is 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.
- (42) SPECIALTY COATING is 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.

- (43) SPOT REPAIRS are repairs to motor vehicles in which the damaged area to be repaired is limited to only a portion of any given panel so that an entire panel need not be repaired.
- (44) THREE-STAGE TOPCOAT SYSTEM is a topcoat system composed of a basecoat portion, a midcoat portion and a transparent clearcoat portion. The VOC content of a three-stage topcoat system shall be calculated according to the following formula:

$$\text{VOC}_{\text{ms}} = \frac{\text{VOC}_{\text{bc}} + \text{VOC}_{\text{mc}} + 2 \text{VOC}_{\text{cc}}}{4}$$

Where:

$\text{VOC}_{\text{ms}}$  is the composite VOC content, less water and less exempt compounds to be used for compliance determination under the multistage topcoat system coating category.

$\text{VOC}_{\text{bc}}$  is the VOC content, less water and less exempt compounds as applied, of any given basecoat.

$\text{VOC}_{\text{mc}}$  is the VOC content, less water and less exempt compounds as applied, of any given midcoat.

$2 \text{VOC}_{\text{cc}}$  is two times the VOC content, less water and less exempt compounds as applied, of any given clearcoat.

- (45) TOPCOAT is a coating applied over any coating, for the purpose of appearance, identification, or protection.
- (46) TOUCH-UP COATING is a coating applied by brush or non-refillable aerosol can to cover minor surface damage and dispensed in containers of no more than eight (8) ounces.
- (47) 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.
- (48) TRUCK is a motor vehicle designed, used, or maintained primarily for the transportation of property.
- (A) LARGE-SIZED TRUCK is a truck having a manufacturer's gross vehicle weight rating of more than 8600 pounds.

- (B) MEDIUM-SIZED TRUCK is a truck having a manufacturer's gross vehicle weight of 6001 to 8600 pounds.
  - (C) SMALL-SIZED TRUCK is 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.
- (49) UNIFORM FINISH BLENDERS are coatings which are applied in spot repairs for the purpose of blending a paint overspray area of a repaired topcoat to match the appearance of an adjacent existing topcoat.
  - (50) VAN is a closed truck for carrying property or persons.
    - (A) MEDIUM-SIZED VAN is a van having a manufacturer's gross vehicle weight rating of 6001 to 8600 pounds.
    - (B) SMALL-SIZED VAN is 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.
  - (51) VEHICLE is a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks.
  - (52) 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.
  - (53) WATER HOLD-OUT COATING is a coating applied to the interior cavity areas of doors, quarterpanels and rocker panels for the purpose of corrosion resistance to prolonged water exposure.
  - (54) WELD-THRU COATING is a coating applied to metal immediately prior to welding to provide corrosion resistance.
- (c) Requirements
- (1) VOC Content of Coatings

A person shall not apply a to coating Group I vehicles and equipment, and Group II vehicles, or their existing parts and components, which has

a VOC content which exceeds the limits contained in subparagraphs (c)(1)(A) and (c)(1)(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 solvent, as applied to the vehicle, mobile equipment, or parts and components.

(A) Group I Vehicles and Equipment

A person who refinishes Group I vehicles and equipment, or their existing parts or components, or replacement parts or components, shall not apply a coating which has a VOC content in excess of the limits in Table 1.

TABLE 1

<u>COATING</u>	<u>VOC LIMITS</u>					
	<u>Grams Per Liter of Coating,</u>					
	<u>Less Water and Exempt Compounds</u>					
	<u>On and After</u> <u>July 1, 1990</u>		<u>On and After</u> <u>January 1, 1992</u>		<u>On and After</u> <u>January 1, 1995</u>	
	<u>g/L</u>	<u>lb/gal</u>	<u>g/L</u>	<u>lb/gal</u>	<u>g/L</u>	<u>lb/gal</u>
Pretreatment	800	6.7	780	6.5	780	6.5
Precoat	800	6.7	660	5.5	250	2.1
Primer/Primer Surfacer/ Primer Sealer	250	2.1	250	2.1	250	2.1
Topcoats						
General	340	2.8	340	2.8	340	2.8
Metallic/Iridescent	420*	3.5*	420*	3.5*	340*	2.8*
Multistage	420*	3.5*	420*	3.5*	340*	2.8*
Extreme-Performance	420	3.5	420	3.5	340	2.8
Specialty Coating	840	7.0	840	7.0	840	7.0

\*Metallic topcoat and multistage topcoat system VOC content limits do not apply to spot repairs of Group I vehicles and mobile equipment. The use of metallic topcoats and multistage topcoat systems in spot repairs on Group I vehicles and mobile equipment shall be subject to the VOC content limits of subparagraph (c)(1)(B).

(B) Group II Vehicles

A person who refinishes Group II vehicles, or their existing parts or components, or replacement parts or components, shall not

apply a coating which has a VOC content in excess of the limits in Table 2.

TABLE 2

<u>COATING</u>	<u>VOC LIMITS</u>							
	<u>Grams Per Liter of Coating,</u>							
	<u>Less Water and Exempt Compounds</u>							
	<u>On and After</u> <u>July 1, 1990</u>		<u>On and After</u> <u>January 1, 1992</u>		<u>On and After</u> <u>July 1, 1993</u>		<u>On and After</u> <u>January 1, 1995</u>	
	<u>g/L</u>	<u>lb/gal</u>	<u>g/L</u>	<u>lb/gal</u>	<u>g/L</u>	<u>lb/gal</u>	<u>g/L</u>	<u>lb/gal</u>
Pretreatment	800	6.7	780	6.5	780	6.5	780	6.5
Precoat	800	6.7	660	5.5	660	5.5	250	2.1
Primer/Primer Surfacer	250	2.1	250	2.1	250	2.1	250	2.1
Primer Sealer	420	3.5	420	3.5	420	3.5	340	2.8
Topcoats	---	---	---	---	---	---	420	3.5
Acrylic Enamel	624	5.2	---	---	---	---	---	---
Alkyd Enamel	588	4.9	---	---	---	---	---	---
Polyurethane Enamel	624	5.2	---	---	---	---	---	---
Lacquer	744	6.2	---	---	---	---	---	---
General	---	---	550	4.6	480	4.0	---	---
Metallic/Iridescent	---	---	580	4.8	520	4.3	---	---
Multistage System	---	---	600	5.0	540	4.5	---	---
Specialty Coating	840	7.0	840	7.0	840	7.0	840	7.0

- (2) Specialty Coatings  
Use of all specialty coatings, as defined by paragraph (b)(41) shall not exceed 5.0 percent of all coatings applied, by volume, on a daily basis.
- (3) Exempt Compounds  
On and after July 1, 1992, a person shall not apply a coating which contains any Group II exempt compound listed in subparagraph (b)(14)(B) except methylene chloride and carbon tetrachloride.
- (4) Transfer Efficiency  
(A) A person shall not apply coatings subject to the provisions of this rule except by the use of one of the following methods:  
(i) electrostatic application, or  
(ii) high-volume, low-pressure (HVLP) spray, or

- (iii) such other coating application methods as are demonstrated, in accordance with the provisions of paragraph (f)(6), to be capable of achieving at least 65 percent transfer efficiency and for which written approval of the Executive Officer has been obtained.
  - (B) A person shall not apply coatings by any of the methods listed in subparagraph (c)(4)(A) unless the coating is applied with properly operating equipment, operated according to procedures recommended by the manufacturer.
- (5) Cleanup Solvent for Surface Preparation and Equipment Cleaning
  - (A) A person shall not use VOC-containing materials which have a VOC content of more than 168 grams per liter (1.4 pounds per gallon) of material for substrate surface preparation;
  - (B) A person shall not use VOC-containing materials for spray equipment cleanup unless an enclosed system is used for cleaning. The system must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures. Alternatively, cleaning solvent may be flushed through the equipment so that no VOC vapors escape to the air; or cleanup equipment which has been demonstrated to the satisfaction of the Executive Officer or his designee to be as effective as any of the equipment described above in minimizing the loss of the VOC-containing material to the atmosphere according to the District's General Test Method for Determining for Solvent Losses from Spray Gun Cleaning Systems, dated October 3, 1989, or later;
  - (C) A person shall not use open containers for storage or disposal of solvent or solvent-containing cloth or paper used for surface preparation and cleanup. Containers shall be nonabsorbent.
- (6) Solvent Cleaning Operations; Storage and Disposal of VOC-containing Materials

Paragraph (c)(5) 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.

- (7) **Approved Emission Control System**  
A person may comply with the provisions of paragraph (c)(1), by using an approved emission control system for reducing emissions of VOC, consisting of collection and control devices which are approved, in writing, by the Executive Officer. The Executive Officer shall approve such emission control system only if the VOC emissions resulting from the use of VOC-containing materials will be reduced to a level equivalent to or lower than that achieved by the compliance with the terms of paragraph (c)(1).
- (8) **Alternative Emission Control Plan**  
A person may comply with the provisions of paragraph (c)(1) by means of an Alternative Emission Control Plan (AECP), pursuant to Rule 108.
- (d) **Prohibition of Specifications**
- (1) A person shall not solicit from, or require any other person to use in the District any VOC-containing material subject to the provisions of this rule which, when applied as supplied or thinned or reduced according to the manufacturer's recommendation for application, does not meet the limits and requirements of this rule. The prohibition against soliciting, or requiring the use of VOC-containing materials shall not apply with respect to solicitations from or requirements of persons operating pursuant to an approved emission control system, as provided for under paragraph (c)(6), or to an AECP as provided for under paragraph (c)(7).
- (2) The requirements of this subsection shall apply to all written or oral agreements executed and entered into.
- (e) **Recordkeeping Requirements**  
Records shall be maintained pursuant to Rule 109.
- (f) **Methods of Analysis**  
For the purpose of this rule, the following test methods shall be used. Other test methods determined to be equivalent after review by the staffs of the District, the Air Resources Board, and the United States Environmental Protection Agency, and approved in writing by the District Executive Officer may also be used.



- (1) VOC Content of Coatings  
The VOC content of coatings shall be determined by:
    - (A) EPA Reference Method 24, (CFR Title 40, Part 60, Appendix A).  
The exempt solvent content shall be determined by SCAQMD Method 19 and Method 22 (SCAQMD "Laboratory Method of Analysis for Enforcement Samples" manual); or
    - (B) SCAQMD Methods 16, 17, 19, 22, and 24 (SCAQMD "Laboratory Method of Analysis for Enforcement Samples" manual).
  - (2) Determination of Iridescent Particles in Metallic/Iridescent Topcoat  
The metal and silicon content of metallic/iridescent topcoat shall be determined by SCAQMD Method 26 (SCAQMD "Laboratory Method of Analysis for Enforcement Samples" manual).
  - (3) Acid Content in Pretreatment Coatings  
The acid content of pretreatment coatings shall be determined by ASTM Test Method D1613.
  - (4) Determination of Efficiency of Emission Control Systems  
The efficiency of the collection device of the emission control system as specified in paragraph (c)(6) shall be determined by the EPA method cited in 55 Federal Register (FR) 26865, June 19, 1990. The efficiency of the control device, as specified in paragraph (c)(6), shall be determined by EPA Method 25.
  - (5) Reflectance of Anti-Glare Safety Coatings  
The reflectance of anti-glare safety coatings shall be measured by ASTM Test Method D-523.
  - (6) Transfer Efficiency  
The transfer efficiency for alternative coating application methods, as defined by clause (c)(4)(A)(iii), shall be determined in accordance with the "SCAQMD Procedure for Testing Spray Equipment Transfer Efficiency (TE)."
- (g) Rule 442 Applicability  
Any coating, coating operation, or facility which is subject to this rule shall comply with the provisions of Rule 442 until such time as compliance with the limits specified in this rule are achieved. Any coating or solvent, 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.

(h) Qualification for Classification as an Extreme-Performance Topcoat

A topcoat is an extreme-performance topcoat if it is to be applied on Group I vehicles and equipment and will be exposed to any of the following:

- (1) industrial grade detergents, cleaners, or abrasive scouring agents; or
- (2) other similar environmental conditions as determined by the Executive Officer and approved by the Air Resources Board and the U.S. Environmental Protection Agency.

A topcoat may be classified as an extreme-performance topcoat provided that the applicator requests and receives written approval of such classification from the Executive Officer prior to the application of such topcoat, and shows that the intended use of each topcoated Group I vehicle and equipment would require coating with an extreme-performance topcoat.

(i) Exemptions

- (1) The provisions of paragraphs (c)(1) and (c)(4) of this rule shall not apply to:
  - (A) touch-up coatings.
  - (B) stencil coatings.

5/13/91

(Adopted January 4, 1991)

**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)
  - (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.

- (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 chemical compound that contains the element of carbon compound, 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) 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 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 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 subparagraph (c)(2) be in compliance by July 1, 1992 or by the date of installation, whichever is later.
- (e) **Alternate Compliance Schedule**  
The subparagraph (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 paragraphs (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 paragraph (h).
- (g) **Recordkeeping Requirements**  
Any person operating a bakery oven subject to this rule and claiming an exemption under paragraph (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) Test Methods

EPA Test Method 25, or SCAQMD Test Method 25.1, or any other method determined to be equivalent and approved by the Executive Officer or his designee, may be used to determine compliance with this rule.

## ATTACHMENT A

<u>Yt*</u>	<u>Pounds VOC/ton Bakery Product</u>	<u>Yt*</u>	<u>Pounds VOC/ton Bakery Product</u>
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		

- \*  $Yt = (\text{yeast percentage}) \times (\text{fermentation time})$
- If yeast is added in 2 steps,  $Yt = (\text{initial yeast percentage})$
- \*  $(\text{total fermentation time}) + (\text{remaining Yeast percentage})$
- \*  $(\text{remaining fermentation time})$

Rule 1158 - Storage, Handling and Transport of Petroleum Coke

(a) Summary

The purpose of this rule is to reduce the potential of a public nuisance being generated by the emissions of airborne particulates from the storage, handling, and transport of petroleum coke. The rule will prohibit the open storage of petroleum coke after January 1, 1985, unless the operators can demonstrate that the pile poses no significant risk of violating any other District rule including the public nuisance rule. It is intended that the burden of proof will be on the operator.

Each operator of an open storage facility will be required to submit an Interim Petroleum Coke Storage Control Plan describing the steps that will be taken to construct enclosed structures and the interim measures that will be taken to mitigate any potential dust emissions until enclosed structures are constructed. If a plan cannot be approved, additional coke may not be added to the piles until approval is granted. The plan is the key to the goals of the rule, since a violation of any provision of the plan will be deemed a violation of the rule.

If the operator can demonstrate that compliance with the interim measures will likely prevent any violations of any other rules, the Executive Officer, after a public hearing, may approve the interim plan to be made permanent and exempt that facility from the requirement of enclosed storage. Such exemption shall be reviewed annually. The rule provides for a compliance schedule for constructing enclosed structures; it requires that construction begin by July 1, 1985, and compliance be assured by June 30, 1986.

In addition, the rule requires that trucks leaving the premises be washed and the loads watered, treated, or covered to prevent emissions. Furthermore, it requires the maintenance of certain records for review by the Executive Officer.



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(b) Definitions

For the purpose of this rule:

- (1) Petroleum Coke is the solid carbonaceous residue remaining after all cracking and distillation of a petroleum refining operation.
- (2) Open Storage is the amassing and handling of solid material in an unconfined, uncovered pile.
- (3) Enclosed storage is the containment of solid material in a structure or other article, contrivance, or device for which the Executive Officer has issued a permit to operate.
- (4) Facility is a parcel, that portion of a parcel, or parcels of land in actual physical contact or separated solely by a public roadway or other public right-of-way, on which petroleum coke is stored, and owned or operated by the same person (or by persons under common control).
- (5) New Facility is any facility not in operation on the date of adoption of this rule.

(c) Requirements

(1) Coke Piles

- (A) A person shall not store petroleum coke in the open after January 1, 1985, except as otherwise provided for in subparagraphs (c)(5) or (d) of this rule. In addition, an Interim Petroleum Coke Storage Control Plan must be filed with the Executive Officer and the appropriate city or county planning department within 30 days of the passage of this rule delineating the steps that will be taken to construct enclosed storage structures, and describing the interim measures that will be taken to mitigate any potential dust emissions. The Executive Officer shall notify the applicant within 60 days after filing of the Plan of his approval, conditional approval, or disapproval, or whether additional information is required, and grant additional time to submit the information, if necessary. A person shall not add petroleum coke to any open storage pile after an Interim Petroleum Coke Storage Control Plan is disapproved

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until the reasons for disapproval are overcome and such Plan as modified is approved, nor shall any person commence open storage of coke at a new facility, unless an Interim Petroleum Coke Storage Control Plan has been filed and approved as provided herein.

- (B) The Interim Petroleum Coke Storage Control Plan submitted for approval shall contain as a minimum the following information:
- (i) A contour map showing the location of the coke storage facility, the locations of the coke piles, and the surrounding land use.
  - (ii) Coke pile details consisting of the maximum daily amount of coke stored within the facility, the average and maximum daily wind velocities at the top of the coke piles, and the maximum height and coke pile configurations.
  - (iii) Mobile coke carrier details consisting of the type, size and maximum daily number of trucks; a description of the roadways used to transport the coke from the coke source to the facility and the roadways used to transport the coke from the facility to final destination, and the mitigation measures employed to contain the coke within open bed trucks.
  - (iv) Details describing the construction and operation of automatic truck washing systems.
  - (v) Details describing the construction and operation of a dust suppressant system for the coke piles.
  - (vi) Details describing the construction and operation of any permanent dust handling equipment and the associated dust control equipment within the facility.
  - (vii) Details describing the construction and operation of any existing or planned enclosed coke storage.

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- (viii) Details describing the type, number and use of mobile coke handling equipment operated on-site.
  - (ix) Housekeeping measures employed within and outside the facility to prevent fugitive coke dust.
  - (x) Details describing the type and method of use of any other mitigating measures employed to prevent the release of airborne coke dust, such as chemical suppressant systems, coke pile sealants, coke pile covers, and/or wind barriers.
- (C) Persons subject to the provisions of the Interim Control Plan shall maintain for one year daily records of the tonnage and maximum height of the piles and the daily throughput in and out, by truckloads, of petroleum coke and provide these records for review by the Executive Officer on request.
- (2) All trucks, whether filled or empty, shall be washed sufficiently and all loads shall be watered, treated, covered or otherwise protected to prevent coke from being dropped onto public or private thoroughfares.
  - (3) Failure to comply with any provision of the approved Petroleum Coke Storage Control Plan shall constitute a violation of this rule.
  - (4) Compliance with the provisions of this rule or of the provisions of the Petroleum Coke Storage Control Plan does not exempt a person from complying with the requirements of Section 41700 and 41701 of the California Health and Safety Code, Rules 401, 402 and 403 of these Rules and Regulations, or any other applicable law, statute, code, ordinance, rule or regulation.
  - (5) In addition to the filing of the Interim Petroleum Coke Storage Control Plan, a person constructing enclosed storage shall meet the following compliance schedule:
    - (A) Negotiation and signing of contracts and submission of appropriate application for permits to construct enclosed structures: January 1, 1985.

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- (B) Initiation of construction: July 1, 1985.
- (C) Completion of construction: June 1, 1986.
- (D) Assurance of final compliance: June 30, 1986.

(d) Exemptions

If an operator of an open petroleum coke storage facility can demonstrate that compliance with the Interim Petroleum Coke Storage Control Plan is sufficient to pose no significant risk of violating any other District rule, the Executive Officer may, after a hearing to which all affected persons are invited, waive the requirement that coke at the storage facility be enclosed and order the Interim Plan be made permanent, subject to annual review. At least 30 days prior to the required hearing, notice of the hearing shall be publicized in such newspaper of general circulation as the Executive Officer shall prescribe and shall be mailed to any person who has requested such notice.

- (e) For the purpose of determining the appropriate processing fees only, the filing of a Petroleum Coke Storage Control Plan 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.
- (f) If any portion of this rule shall be 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.
- (g) The provisions of paragraph (a) are intended only to summarize Rule 1158 and to give guidance as to its interpretation. The provisions of paragraph (a) are not separate or distinct requirements, and if found to conflict with any other provision, there shall be no effect on the validity and enforceability of the rest of the rule.

October 9, 1985

2/10/86

~~PROPOSED~~ RULE 1159 - NITRIC ACID UNITS - OXIDES OF NITROGEN

(a) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) Nitric Acid Production Unit means any facility producing weak nitric acid by either the pressure or atmospheric pressure process.
- (2) Weak Nitric Acid means acid which is 30 to 70 percent in strength.

(b) Requirements

An owner/operator of a nitric acid production unit shall not discharge into the atmosphere any gases which contain oxides of nitrogen expressed as NO<sub>2</sub> in excess of:

- (1) 450 ppm, dry basis, averaged over 15 consecutive minutes.
- (2) 237 ppm, dry basis, averaged over 60 consecutive minutes, or
- (3) 1.5 kilograms per metric ton (3 pounds per ton) of acid produced, averaged over a 60 consecutive minute period (the production being expressed as 100 percent nitric acid).

5/13/91

(Adopted July 8, 1988)(Amended May 5, 1989)(Amended March 2, 1990)  
(Amended December 7, 1990)

**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.

**(b) Purpose**

The purpose of this rule is to control emissions of volatile organic compounds from semiconductor device manufacturing operations. 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.

**(c) Definitions**

For the purpose of this rule, the following definitions apply:

(1) **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 (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 atmospheric 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.

- (2) **FREEBOARD HEIGHT** is the distance from the top of the solvent or solvent overflow drain to the top of the sink or reservoir.
- (3) **FREEBOARD RATIO** is the freeboard height divided by the smaller of the length or width of the sink or reservoir.
- (4) **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

$$\text{Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

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

- (5) **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

- (6) **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.

- (7) 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.
- (8) 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 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 wafer surface for etching.
- (9) SEMICONDUCTOR MANUFACTURE is any process or operation performed to produce semiconductor devices or related solid state devices, including but not limited to diodes, zeners, stacks, and/or rectifiers, integrated microcircuits, transistors, solar cells, light-sensing devices, and light-emitting devices.
- (10) SOLVENT is any material containing VOC or any exempt compound and that dissolves or can dissolve another substance and includes developers and stripping agents.
- (11) SOLVENT CLEANING STATION is a workplace equipped to remove surface contaminants using a liquid or vapor solvent containing volatile organic compounds.
- (12) STRIPPING is the removal of spent photoresist maskant from the product after etching, or the removal of oxide stencil from the product after diffusion.
- (13) 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.



(d) 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 equivalent 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 shall have a freeboard ratio greater than or equal to 1.0, or be equipped with an equivalent emission control system, unless the composite vapor pressure of the VOC-containing fluid does not exceed 33 mm Hg (0.64 psia) at 20°C (68°F).

(C) VOC-containing materials in a solvent flow shall be applied only as a continuous unbroken stream and not as a dispersed, fine, atomized, or shower type spray, and the method of application shall prevent liquid losses through 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 all VOC-containing vapors are vented to emission control devices which reduce VOC emissions by at least 90 percent by weight.

(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 composite vapor pressure of the VOC-containing materials shall not exceed 33 mm Hg (0.64 psia) at a temperature of 20°C (68°F); 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.
  - (B) Only nonabsorbent, closed containers shall be used for the storage, transfer, or disposal of all accessories including cloth, paper, and other materials clearly used for cleanup with solvents.
  
- (e) Recordkeeping Requirements  
Records shall be maintained pursuant to Rule 109.
  
- (f) Methods of Analysis  
The VOC concentrations of materials subject to the provisions of this rule shall be determined by the procedures detailed in the District's "Laboratory Methods of Analysis for Enforcement Samples" manual.
  
- (g) Alternative Emission Control Plan  
An owner/operator may achieve compliance with subparagraph (d)(1) and/or (d)(2) by means of an Alternative Emission Control Plan pursuant to Rule 108.
  
- (h) Prohibition of Specifications  
A person shall not specify the use of any VOC-containing material for any process or operation within the District, 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.
  
- (i) 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.

**(j) 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 and can be demonstrated as such to the satisfaction of the Executive Officer through records maintained per Rule 109.

5/13/91

(Adopted July 7, 1989)(Amended December 7, 1990)

**RULE 1173. FUGITIVE EMISSIONS OF VOLATILE ORGANIC COMPOUNDS**

**(a) Purpose**

This rule is intended to control volatile organic compounds leaks from valves, fittings, pumps, compressors, pressure relief devices, diaphragms, hatches, sight-glasses, and meters at refineries, chemical plants, oil and gas production fields, natural gas processing plants, and pipeline transfer stations.

**(b) Definitions:**

For the purpose of this rule the following definitions shall apply:

- (1) **BACKGROUND** is the ambient concentration of volatile organic compounds in the air determined at least one (1) meter upwind of the component to be inspected.
- (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 its Standard Industrial Classification Code as defined in the Standard Industrial Classification Manual is included.
- (3) **COMMERCIAL NATURAL GAS** is 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** is any valve, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter. They are further classified as:
  - (A) **MAJOR COMPONENT** is 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** is any component which is not a major component.
- (5) **COMPRESSOR** is 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) **EXEMPT COMPOUND** is 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 (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 atmospheric ozone depleters, or cause other environmental impacts. The use and emissions of chlorofluorocarbons (CFC) will be phased out at the earliest practicable date on or before 1997.

- (7) **FACILITY** is a refinery, chemical plant, oil and gas production field, natural gas processing plant, or pipeline transfer station.
- (8) **FIELD GAS** means feed stock gas entering the natural gas processing plant.
- (9) **FITTING** is a component used to attach or connect pipes or piping details, including but not limited to flanges and threaded connections.
- (10) **GAS LEAK** is one of the following:
- (A) **MAJOR GAS LEAK FOR ANY COMPONENT EXCEPT FOR A PRESSURE RELIEF DEVICE** is 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** is 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 is 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).
- (11) HATCH is any covered opening system that provides access to a tank or container, usually through the top deck.
- (12) INACCESSIBLE COMPONENT is any component located over fifteen feet above ground when access is required from the ground; or any component located over six feet away from a platform when access is required from the platform.
- (13) INSPECTION is either of the following:
  - (A) OPERATOR INSPECTION is a survey of components by the operator for the purpose of determining compliance with this rule.
  - (B) DISTRICT INSPECTION is a survey of components by District personnel or their representatives.
- (14) LIQUID LEAK is the dripping of liquid volatile organic compounds at the rate of more than three drops per minute.
- (15) LUBRICATING FLUID is a fluid that provides lubrication of moving parts in a pump, including barrier fluids.
- (16) NATURAL GAS PROCESSING PLANT is a facility engaged in the separation of natural gas liquids from field gas and/or fractionation of the liquids into natural gas products, such as ethane, propane, butane, and natural gasoline. Excluded from the definition are compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquified natural gas units, and field gas gathering systems unless these facilities are located at a natural gas processing plant.
- (17) OIL AND GAS PRODUCTION FIELD is a facility on which crude petroleum and natural gas production and handling are conducted, as defined in the Standard Industrial Classification Manual as Industry No. 1311, Crude Petroleum and Natural Gas.

- (18) PIPELINE TRANSFER STATION is a facility which handles the transfer and storage of petroleum products or crude petroleum in pipelines.
- (19) PLATFORM is any raised, permanent, horizontal surface for the purpose of gaining access to components.
- (20) PRESSURE RELIEF DEVICE (PRD) is a pressure relief valve or a rupture disc.
- (21) PRESSURE RELIEF VALVE (PRV) is a valve which is automatically actuated by upstream static pressure, and used for safety or emergency purposes.
- (22) PUMP is a device used to transport fluids by the addition of energy, and includes all associated components used for connecting or sealing purposes.
- (23) REFINERY is a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining.
- (24) REPAIR is any of the following:
  - (A) ON-SITE REPAIR is corrective action for the purpose of eliminating leaks and which is not a significant repair.
  - (B) SIGNIFICANT REPAIR is corrective action for the purpose of eliminating leaks involving the temporary removal or taking out of service of a component.
- (25) RUPTURE DISC is a diaphragm held between flanges for the purpose of isolating a volatile organic compound from the atmosphere or from a downstream pressure relief valve.
- (26) VALVE is 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.
- (27) 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) 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.

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TABLE 1. LEAK THRESHOLDS

<u>Component</u>	<u>Max. No. of Leaks</u>	
	(200 or less components inspected)	(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

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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 District, Office of Operations.



**(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 District, Office of Operations.
- (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

<u>Type of Leak</u>	<u>Time Period</u>
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 BART), or vented to an air pollution control device approved by the District, Office of Operations, 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 District, Office of Operations, 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 equivalent method approved by the District, Office of Operations, in writing.

- (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) **Compliance Schedule**  
All facilities shall be in compliance with this rule by February 1, 1991.
- (j) **Other Rules and Regulation Applicability**

  - (1) Affected facilities shall comply with the provisions of Rules 466, 466.1, and 467 until February 1, 1991, or until compliance with this rule is achieved, whichever is earlier.
  - (2) 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.
- (k) **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 District, Office of Operations:

  - (1) 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 District, Office of Operations.
  - (2) Components being repaired or replaced within the specified repair or replacement period, as given in Table 2.
  - (3) Components exclusively handling commercial natural gas.
  - (4) 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).
  - (5) Components incorporated in lines, while operating under negative pressures.
  - (6) Components totally contained or enclosed such that there are no VOC emissions into the atmosphere.
  - (7) Lubricating fluids.
  - (8) Components buried below ground.

- (9) Components handling liquids exclusively, if the weight percent evaporated is ten percent or less at 150°C, as determined by ASTM Method D-86.
- (10) Pressure vacuum valves on storage tanks.

(Adopted November 3, 1989)(Amended January 5, 1990)

**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 a maximum of 48 hours of storage of the final product are subject to the requirements of this rule.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) AIR POLLUTION CONTROL DEVICE means any device, approved by the Executive Officer, which reduces manufacturing emissions from an emission collection system by at least 95 percent by weight, across the control device.
- (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) and chlorodifluoroethane (HCFC-142b).
- (4) EMISSION COLLECTION SYSTEM means a system, approved by the Executive Officer, for collecting manufacturing emissions and transporting them to an air pollution control device and which satisfies at least one of the following conditions:
  - (A) The owner or operator demonstrates that the system collects at least 90 percent by weight of the manufacturing emissions generated by the sources of emission; or
  - (B) The system is constructed and operated in accordance with guidelines published in the 20th edition of the *Industrial*

*Ventilation Manual* by the American Conference of Governmental Industrial Hygienists.

- (5) EXPANDABLE POLYSTYRENE MOLDING (EPS) OPERATIONS consist of a series of processes, where polystyrene beads containing a 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) RIGID POLYURETHANE is a closed cell polyurethane, primarily manufactured as rigid slabstock, laminated boardstock, field spray foam or pour in place foam.
  - (9) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates and metallic carbides, methane and 1,1,1-trichloroethane, methylene chloride, trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorodifluoromethane (CFC-12), trichlorofluoromethane (CFC-11), chlorodifluoromethane (HCFC-22), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), dichlorotrifluoroethane (HCFC-123), tetraflouroethane (HFC 134a), dichlorofluoroethane (HCFC-141b), and chlorodifluoroethane (HCFC-142b).
- (c) Emission Control Requirements
- (1) Manufacturing Operations, Excluding Expandable Polystyrene (EPS) Molding Operations
    - (A) Between May 1 and June 1, 1990, and each year thereafter, the owner or operator of any polyurethane operation who chooses to use blowing agents, not subject to the rule requirements, shall issue a firm bid to purchase a one-year supply of these compounds.

This bid shall be sent to all known suppliers of the exempt compounds and would be operative within one week of agreement of the first respondent to supply the material. Proof of the bid shall be submitted to the District by June 1 of each year from 1990 through 1993. 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:
  - (i) 40 percent, beginning calendar year 1991; and
  - (ii) 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, by July 1, 1991 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 (Office of Operations) subject to approval by the Executive Officer, by July 1, 1990 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 air pollution control equipment 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 emission collection and an air pollution control device are installed and operating with all sources of

manufacturing emissions vented only to the air pollution control device; and

- (ii) Emissions from the final manufactured product are vented only to the air pollution control device 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; or

(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

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, beginning January 1, 1990, and be available to a District representative upon request.



(f) Compliance Determination

Compliance with the manufacturing emission requirements shall be determined according to procedures in the District's *Source Test Manual* and the District's *Laboratory Methods of Analysis for Enforcement Samples* manual, or by methods approved by the Executive Officer.

(Adopted November 3, 1989)(Amended January 5, 1990)

**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 COMPOUND is any of the following: methane, 1,1,1-trichloroethane, chlorodifluoromethane (HCFC-22), dichlorotrifluoroethane (HCFC-123), tetrafluoroethane (HFC-134a), dichlorofluoroethane (HCFC-141b), and chlorodifluoroethane (HCFC-142b).
- (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 (District Office of Operations); 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 (Office of Operations) 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 better than the requirements of subparagraphs (c)(2)(A) or (c)(2)(B), as demonstrated by the applicant to the satisfaction of the Executive Officer (District Office of Operations).
- (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 (District Office of Operations).

(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, or any other equivalent method approved by the Executive Officer (District Office of Operations).
- (2) Measurement of control efficiency of an air pollution control device shall be conducted according to EPA Reference Method 25, or any other equivalent method approved by the Executive Officer (District Office of Operations).

## (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, or as approved by the Executive Officer (District Office of Operations).

- (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 Methods 413.2 or 418.1, and if necessary, 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.