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RULE 20. SCAVENGER PLANTS.

Where a separate source of air pollution is a scavenger or recovery plant, recovering pollutants which would otherwise be emitted to the atmosphere, the Air Pollution Control Officer may grant a permit to operate where the total emission of pollutants is substantially less with the plant in operation than when closed, even though the concentration exceeds that permitted by Rule 19 (a). The Air Pollution Control Officer shall report immediately in writing to the Air Pollution Control Board the granting of any such permit, together with the facts and reasons therefor.

Effective July 1, 1973, this Rule is repealed for sulfur recovery units.

Effective January 1, 1974, this Rule is repealed for sulfuric acid units.

~~(c) A person shall not discharge into the atmosphere from any equipment~~ whatsoever, used to process combustible refuse, except as provided in subsection (d) of this Rule, particulate matter in excess of 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions. Any carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of carbon dioxide (CO_2).

(d) A person shall not discharge into the atmosphere from any incinerator or other equipment used to dispose of combustible refuse by burning, having design burning rates of 100 pounds per hour or less, particulate matter in excess of 0.3 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions. Any carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of carbon dioxdie (CO_2).

This Rule is to become effective in the South Coast Air Basin on June 1, 1972 for all sources which are not either in operation or under construction prior to that date, and Rule 28 shall not be applicable to such sources in the South Coast Air Basin on or after that date. This Rule is to become effective for all other sources in the South Coast Air Basin on January 1, 1973, and Rule 28 shall not be applicable in the South Coast Air Basin on or after that date.

RULE 32.1 - SULFUR CONTENT OF NATURAL GAS - SOUTH COAST AIR BASIN

A person shall not burn natural gas containing sulfur compounds in excess of 15 grains per 100 cubic feet, calculated as hydrogen sulfide at standard conditions.

The provisions of this Rule shall not apply to the use of fuels where the gaseous products of combustion are used as raw materials for other processes.

This Rule shall become effective in the South Coast Air Basin on January 1, 1973 for all sources which are either in operation, or under construction on June 1, 1972. This Rule shall be effective for all other sources in the ~~South Coast Air Basin on June 1, 1972.~~

RULE 36.1-VACUUM PRODUCING DEVICES OR SYSTEMS - SOUTH COAST AIR BASIN

A person shall not discharge into the atmosphere more than 3 pounds of organic materials in any one hour from any vacuum producing devices or systems, including hot wells and accumulators, unless said discharge has been reduced by at least 90 percent.

This Rule shall become effective on January 1, 1973 for all sources which are either in operation, or under construction on June 1, 1972. This Rule shall be effective for all other sources on June 1, 1972.

~~RULE 36.2-ASPHALT AIR BLOWING - SOUTH COAST AIR BASIN~~

~~A person shall not operate or use any article, machine, equipment or other contrivance for the air blowing of asphalt unless all gases, vapors and gas-entrained effluents from such an article, machine, equipment or other contrivance are:~~

~~(a) Incinerated at temperatures of not less than 1400 degrees Fahrenheit 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 (a) above.~~

~~This Rule shall become effective on January 1, 1973 for all sources which are either in operation, or under construction on June 1, 1972. This Rule shall be effective for all other sources on June 1, 1972.~~

RULE 39.1-FUEL BURNING EQUIPMENT - OXIDES OF NITROGEN - SOUTH COAST AIR BASIN

Effective on January 1, 1975, a person shall not discharge into the atmosphere from any non-mobile fuel burning article, machine, equipment or other contrivance, having a maximum heat input rate of more than 1775 million British Thermal Units (BTU) per hour (gross), flue gas having a concentration of nitrogen oxides, calculated as nitrogen dioxide (NO_2) at 3 percent oxygen, in excess of 125 ppm when fired by a gaseous fuel and 225 when fired by a liquid or solid fuel.

RULE 39.2-CARBON MONOXIDE - SOUTH COAST AIR BASIN

A person shall not discharge into the atmosphere carbon monoxide (CO) in concentrations exceeding 2000 ppm by volume measured on a dry basis.

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

This Rule shall become effective on January 1, 1973 for all sources which are in operation, or under construction on June 1, 1972. ~~This Rule shall be effective for all other sources on June 1, 1972.~~

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~~RULE 63. REPORTS.~~

~~The Air Pollution Control Officer shall make summaries of the readings required by Rule 62. The summaries shall be in such form as to be understandable by the public. These summaries shall be public records and immediately after preparation shall be filed at the main office of the Air Pollution Control District and be available to the public, press, radio, television, and other mass media of communication.~~

RULE 64. CONTINUING PROGRAM OF VOLUNTARY COOPERATION.

Upon the adoption of this regulation the Air Pollution Control Officer shall inform the public of ways in which air pollution can be reduced and shall request voluntary cooperation from all persons in all activities which contribute to air pollution. Civic groups shall be encouraged to undertake campaigns of education and voluntary air pollution reduction in their respective communities. Public officials shall be urged to take promptly such steps as may be helpful to reduce air contamination to a minimum within the areas of their authority. Employers shall be requested to establish car pools. Users of automotive vehicles shall be urged to keep motors in good condition and to plan routes and schedules which will contribute minimum contamination to critical areas of pollution. All industrial, commercial and business establishments which emit hydrocarbons or the air contaminants named in Rule 67 should critically study their operations from the standpoint of air contamination and should take appropriate action voluntarily to reduce air pollution.

~~RULE 65. PLANS.~~

~~a. If the Air pollution Control Officer finds that any in-~~

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~~shall be representatives of law enforcement, and two shall be members~~ of the public at large.

The County Health Officer, the Sheriff, and the County Counsel shall be ex-officio members of the Committee. In the absence of an ex-officio member, his deputy may act for him.

The term of appointment of appointed members shall be two years.

The duties of the Emergency Action Committee shall be to meet with the Air Pollution Control Officer when called into session, to evaluate data, and to advise the Air Pollution Control Officer as to the appropriate action to be taken when the concentration of any of the contaminants set forth in Rule 67 has been verified to be approaching the standards set forth in Rule 67 for a Second Alert.

The Committee shall meet when called into session and not less ~~than every three months.~~

RULE 74. VIOLATIONS.

Whenever, in these rules and regulations, or in any resolutions or orders promulgated or adopted pursuant to these rules and regulations, any act is prohibited or made or declared to be unlawful or a misdemeanor where no specific penalty is provided for, the violations of any such provision of these rules and regulations or any resolution or order adopted pursuant to these rules and regulations, shall be punished by a fine not exceeding $500.00 or imprisonment for a time not exceeding six months or for both such fine and imprisonment.

Every day any violation of these rules and regulations, or any resolutions or orders adopted pursuant to these rules and regulations, shall continue, shall constitute a separate offense. Punishment of

any such violations as a misdemeanor shall not preclude the District from exercising any other legal remedies it may have.

~~RULE 75. ENFORCEMENT.~~

~~The provisions of these rules and regulations shall be enforced by the Air Pollution Control Officer and his assistants and deputies.~~

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~~any such violations as a misdemeanor shall not preclude the District from exercising any other legal remedies it may have.~~

RULE 75. ENFORCEMENT.

The provisions of these rules and regulations shall be enforced by the Air Pollution Control Officer and his assistants and deputies.

5/23/79
Santa Barbara

AIR POLLUTION CONTROL DISTRICT

County of Santa Barbara
****

RULES AND REGULATIONS

Regulation I
General Provisions

RULE 101. TITLE: COMPLIANCE BY EXISTING INSTALLATIONS: CONFLICTS.

These Rules and Regulations shall be known as the Rules of the Air Pollution Control District, operative January 1, 1972.

The existing articles, machines, equipment or other contrivances which, on the effective date of these Rules and Regulations, do not conform to all requirements thereof, shall be forthwith brought into strict conformity with these Rules and Regulations, provided however, that the Hearing Board may grant variances to applicants upon application therefor as provided in Rule 504, pursuant to all applicable Federal and State laws, specifically Articles 5 and 6 of Chapter 2 of Division 20 of the Health and Safety Code of California (Section 24291 and 24323, both inclusive) and any amendments and successors thereto. In the event of any conflict between these Rules and Regulations and Federal and State Rules and Regulations, the Federal or State Rules and Regulations shall prevail. Whenever more than one rule of these Rules and Regulations applies to any article, machine,

equipment or other contrivance, the rule or combination of rules resulting in the smallest rate or lowest concentration of air contaminants released to the atmosphere shall apply.

~~RULE 102. DEFINITIONS.~~

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

A. Agricultural Burning. "Agricultural Burning" means open outdoor fires used in agricultural operations, in the growing of crops or raising of fowls or animals, forest management or range improvement, or used in improvement of land for wildlife and game habitat, or disease or pest prevention.

B. Open Burning in Agricultural Operations. "Open Burning in Agricultural Operations" in the growing of crops or raising of fowls or animals means:

1. The burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowls or animals for the primary purpose of making a profit, or providing of livelihood, or of conducting agricultural research or instruction by an education institution and

2. In connection with operations qualifying under Subdivision 1:

a. The burning of grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation; and

~~b. The burning of material not produced wholly~~

RULE 102. DEFINITIONS. (Adopted 10/18/1971, revised 1/12/1976, readopted 10/23/1978, revised 7/11/1989, 7/10/1990, 7/30/1991, 7/18/1996, 4/17/1997, 1/21/1999, 5/20/1999, 6/19/2003, 1/20/2005, 6/19/2008, 1/15/2009, 9/20/2010, 1/20/2011, 3/17/2011, and 6/21/2012)

These definitions apply to the entire rulebook. Definitions specific to a given rule are defined in that rule or in the first rule of the relevant regulation. Except as otherwise specifically provided in these Rules where the context otherwise indicates, words used in these Rules are used in exactly the same sense as the same words are used in Division 26 of the Health and Safety Code.

"Actual Emission Reductions" means a reduction of actual emissions from the stationary source selected for emission offsets, from a baseline which is representative of normal operations approved by the Air Pollution Control Officer. This baseline shall be determined in accordance with Rule 802.F.2 for nonattainment pollutants and Rule 803.J.2 for attainment pollutants and must be based on the average actual emissions from the three years of operation immediately prior to the submission of the complete application. The Air Pollution Control Officer may approve any other time period of at least three years within five years prior to the date of application, or shorter period as may be applicable in cases where the existing source has not been in operation for three consecutive years, that is more representative of normal source operation.

"Aerosol Product" means a hand-held, non-refillable container that expels pressurized product by means of a propellant-induced force.

"Affected Pollutants" means all pollutants for which an ambient air quality standard has been established by the Environmental Protection Agency or the Air Resources Board and the precursors to such pollutants, all pollutants regulated by the Environmental Protection Agency under the Clean Air Act or by the Air Resources Board under the Health and Safety Code, including reactive organic compounds, nitrogen oxides, sulfur oxides, PM_{10} (particulate matter with aerodynamic diameter of ten micrometers or less as measured by reference method 40 Code of Federal Regulations 50 Appendix J.), carbon monoxide, total suspended particulates, ethylene, lead, asbestos, beryllium, mercury, vinyl chloride, fluorides, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, and reduced sulfur compounds. Also, all of the pollutants which the Environmental Protection Agency after notice and opportunity for public comment, or the Air Resources Board, or the District after public hearing, determine may have a significant adverse effect on the environment, the public health, or the public welfare.

"Agricultural Burning" means "agricultural burning" as defined in Health and Safety Code Section 39011.

"Air Contaminant" includes, but is not limited to, smoke, charred paper, dust soot, grime, carbon, noxious acids, fumes, gases, odors, or particulate matter, or any combination thereof.

"Air Quality Impact Analysis" means the use of an air quality simulation model, based on specified assumptions and data, to predict the maximum impact of the pollutant in areas over land and water accessible to the public.

"Air Quality Increment" means an increment of allowable air quality degradation, beyond the baseline air quality level.

"Air Quality Related Value" means a feature or property of an area that is affected in some way by the air pollution in issue. Identified values are visibility, odor, flora, fauna, soil, water, geologic features and cultural resources.

"Alternative Diesel Fuel" means any fuel used in a compression ignition engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D 975, "Standard Specification for Diesel Fuel Oils," ASTM International, or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:

1. the additive is supplied to the engine fuel by an on-board dosing mechanism, or
2. the additive is directly mixed into the base fuel inside the fuel tank of the engine, or
3. the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.

"Ambient Air Quality Standards" means those standards set by the State or Federal governments.

"Application Equipment" means a device or equipment used to apply solvent, sealant, adhesive, coating, ink, or polyester resin materials.

"ASTM" means American Society for Testing and Materials. In 2001, the American Society for Testing and Materials officially changed its name to "ASTM International."

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

"Attainment Pollutant" means any affected pollutant which is not a nonattainment pollutant. For the purposes of this definition greenhouse gases are not attainment pollutants.

"Authority to Construct" means a permit issued by the Control Officer for activities described in Rule 201.A.

"Avionic Equipment" means any electronic system used on any aircraft, aerospace vehicle, satellite, or space vehicle.

"Baseline Air Quality" means the ambient concentration level reflecting actual air quality as monitored or modeled as of the existing baseline date shown in the air quality increments table, (Rule 803, Table 3) minus any contribution attributable to emissions from major stationary sources and modifications (as defined in 40 Code of Federal Regulations 52.21 as it existed on 8-7-80) constructed since the baseline date specified in Table 3 of Rule 803.

"Best Available Control Technology" means, for nonattainment pollutants, "Best Available Control Technology" as it is described in Section C.2 of Rule 802. For attainment pollutants, "Best Available Control Technology" is as described in Section D.2 of Rule 803.

"Best Available Retrofit Control Technology" means "Best Available Retrofit Control Technology" as defined in Health and Safety Code Section 40406.

"Board" means the Air Pollution Control Board of the Air Pollution Control District of Santa Barbara County.

"Boundary Line" means, for source emission purposes, a separation such as a fence, abutment or device that restricts public entry to any given area containing a source of emissions by locked gate or attendant. If no boundary restriction exists, or if such boundary restriction includes habitations occupied or regularly used by humans, the boundary line shall be deemed to be such distance from a source of emissions as the evaluating officer deems appropriate for measurements to be best taken, but not closer than 100 feet from such source.

"Burn Day" A "No Burn Day" means any day on which agricultural burning is prohibited by the Air Resources Board or the District. A "Permissive Burn Day" means any day on which agricultural burning is not prohibited by the Air Resources Board. The District may declare any Permissive Burn Day designated by the State Air Resources Board to be a No Burn Day if necessary to maintain suitable air quality.

"California Coastal Waters" means that area between the California coastline and a line starting at the California-Oregon border at the Pacific Ocean,

thence to 42.0 N 125.5 W
thence to 41.0 N 125.5 W
thence to 40.0 N 125.5 W
thence to 39.0 N 125.0 W
thence to 38.0 N 124.5 W
thence to 37.0 N 123.5 W
thence to 36.0 N 122.5 W
thence to 35.0 N 121.5 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.

"Capture Efficiency" means the percentage by weight of affected pollutants delivered to a control device divided by the weight of total affected pollutants generated by the source.

"Carbon Adsorber" means a bed of activated carbon into which an air-solvent gas-vapor stream is routed and which adsorbs the solvent on the carbon.

"Catalytic Incinerator" means any device that burns reactive organic compounds or toxic air contaminants in air using a material that increases the rate of combustion without itself undergoing a net chemical change in the process. Common catalyst materials include but are not limited to, platinum alloys, chromium, copper oxide, and cobalt.

"CFR" means the Code of Federal Regulations, an official compilation of federal regulations generated by federal administrative agencies.

"Class I Area" means any area having air quality or air quality related values requiring special protection, and which has been designated Class I by a federal or state authority empowered to make such designation.

"Class I Impact Area" means all lands outside of a Class I area but within a 10 kilometer (6.2 miles) distance beyond the boundary of a Class I area, or other areas established by the Control Officer based on standard meteorological techniques such as hourly wind roses, frequency distribution of atmospheric wind classes, morning and afternoon mixing depths and any other meteorological or geographical considerations needed to establish the Class I impact area.

"Class II Area" means any area not designated as a Class I or Class III Area pursuant to 40 CFR 51.166(e)

"Clean Air Act" means, unless otherwise indicated, the federal Clean Air Act as amended, 42 United States Code 7401, *et seq*.

"Coating" means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

"Combustible Refuse" is any solid or liquid combustible waste material containing carbon in a free or combined state.

"Combustion Contaminants" are particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state.

"Compression Ignition Engine" means a type of reciprocating, internal combustion engine that is not a spark ignition engine.

"Condensed Fumes" means minute solid particles generated by the condensation of vapors from solid matter after volatilization from the molten state, sublimation, distillation, calcination, or chemical reaction, when these processes create air-borne particles.

"Construction" means any physical change or change in the method of operation (including fabrication, erection, installation, or modification of an emission unit) which would result in a change in actual emissions or the source's potential to emit.

"Contiguous Property" means two or more parcels of land with a common boundary or point or separated solely by a public roadway or other public right of way.

"Control Device" means any destruction and/or recovery equipment used to destroy or recover affected pollutant emissions generated by a regulated operation.

"Control Device Efficiency" means the percentage of affected pollutants entering a control device that is not present in the exhaust to the atmosphere of that control device.

"Control Officer" means the Air Pollution Control Officer of the Air Pollution Control District of Santa Barbara County.

"Cured Adhesive, Cured Coating, or Cured Ink" means an adhesive, coating, or ink that is dry to the touch.

"Days" means calendar days unless otherwise stated. Where any deadline prescribed by these Rules and Regulations falls on a weekend or state or federal holiday, the deadline shall be the first business day after the weekend or holiday.

"Degreaser" has the same meaning as **"Solvent Cleaning Machine."**

"Derated" means any physical change to an emission unit to physically limit and restrict the equipment's power rating from the power rating specified by the manufacturer on the date of initial manufacture of the equipment.

"Diesel Engine" means a type of internal combustion engine that uses low-volatility petroleum fuel and fuel injectors and initiates combustion using compression ignition (as opposed to spark ignition that is used with gasoline engines).

"District" means the Santa Barbara County Air Pollution Control District unless otherwise specifically indicated.

"Dual-Fuel Engine" means any compression ignition engine that is engineered and designed to operate on a combination of alternative fuels, such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) and diesel fuel or an alternative diesel fuel. These engines have two separate fuel systems, which inject both fuels simultaneously into the engine combustion chamber.

"Dusts" are minute solid particles released into the air by natural forces or by mechanical process such as crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, sweeping, etc.

"Electronic Components" means the portions of an assembly, including, but not limited to: circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, magnetic tapes and tape drive mechanisms, discs and disc drive mechanisms, electro-optical devices (e.g., optical filters, sensor assemblies, infrared sensors, charged coupled devices, thermal electric coolers, and vacuum assemblies), solid state components, semiconductors (e.g., diodes, zeners, stacks, rectifiers, integrated microcircuits, transistors, solar cells, light sensing devices, and light-emitting devices), and other electrical fixtures, except for the actual cabinet in which the components are housed.

"Electrostatic Spray" means any method of applying a spray coating in which an electrical charge is applied to the coating and the substrate is grounded. The coating is attracted to the substrate by the electrostatic potential between them.

"Emission Reduction Credit" means an actual emission reduction of specific type and quantity that is registered with the District in accordance with Rule 806.

"Emission Reduction Credit Certificate" means a document that represents emission reduction credits registered in the Source Register, is transferable, is initially issued by the District to a source that qualifies its actual emission reductions for registration in the Source Register by meeting the requirements of Rule 806.

"Emission Unit" means any identifiable piece of equipment or activity that is part of a stationary source which emits or would have the potential to emit any affected pollutant.

"Enclosed Cleaning System" means any application equipment cleaner (e.g., an enclosed gun washer) that totally encloses spray guns, cups, nozzles, bowls, and other parts during solvent washing, rinsing, and draining procedures. An enclosed cleaning system for cleaning application equipment is not a solvent cleaning machine.

"Exempt Compound" means any compound listed as an exempt compound in the definition of **"**Reactive Organic Compound.**"** Tertiary-butyl acetate (also known as t-butyl acetate or tBAc) shall be considered exempt as a reactive organic compound only for purposes of reactive organic compound emissions limitations or reactive organic compound content requirements and shall be considered a reactive organic compound for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to reactive organic compounds.

"Federally enforceable" means all limitations and conditions which are enforceable by the Administrator of the Environmental Protection Agency.

"Flexographic Printing" means any printing method in which the image area is raised relative to the non-image area and utilizes flexible rubber or other elastomeric plate and rapid drying liquid inks.

"Fluid System" means a power transmission system that uses the force of flowing liquids and gases to transmit power. Fluid systems include hydraulic systems and pneumatic systems.

"Fluorinated Gases" means a compound that contains fluorine and exists in a gaseous state at 25 degrees Celsius and 1 atmosphere of pressure. Fluorinated gases include, but are not limited to:

1. hexafluoroethane (C_2F_6), (CFC-116),
2. octafluoropropane (C_3F_8), (PFC 218),
3. octafluorocyclopentene (C_5F_8), (PFC C-1418),
4. tetrafluoromethane (CF_4), (CFC-14),
5. trifluoromethane (CHF_3), (HFC-23),
6. difluoromethane (CH_2F_2), (HFC-32),
7. octafluorocyclobutane (c-C_4F_8), (RC 318),
8. octafuorotetrahydrofuran (C_4F_8O),
9. hexafluoro-1,3-butadiene (C_4F_6),
10. carbon fluoride oxide (COF_2),
11. nitrogen trifluoride (NF_3), and
12. sulfur hexafluoride (SF_6).

"Forest Management Burning" means the use of open fires, as part of forest management practice, to remove forest debris. Forest management practices include timber operations, silvicultural practices and forest protection practices.

"Fuel" means any substance that is burned, combusted, or incinerated in an engine, boiler, heater, burner, steam generator, process heater, flare, thermal oxidizer, or any other combustion unit, and which includes, but is not limited to, gasoline, natural gas, field gas, produced gas, waste gas, methane, digester gas, landfill gas, contaminated soil/water cleanup gaseous effluent, ethane, propane, butane, liquefied petroleum gas (LPG), jet propellants, diesel fuels, and distillate fuels.

"Fuel Additive" means any substance designed to be added to fuel or fuel systems or other engine-related engine systems such that it is present in-cylinder during combustion and has any of the following effects: decreased emissions, improved fuel economy, increased performance of the engine; or assists diesel emission control strategies in decreasing emissions, or improving fuel economy or increasing performance of the engine.

"Fugitive Emission" means an emission which could not reasonably pass into the atmosphere through a stack, chimney, vent or other functionally equivalent opening.

"Gasoline" means any organic liquid (including petroleum distillates and methanol) having a Reid vapor pressure, as measured using California Code of Regulations, Title 13, Division 3, Chapter 5, Article 4, section 2297, "Test Method for the Determination of the Reid Vapor Pressure Equivalent Using an Automated Vapor Pressure Test Instrument," of 4.0 pounds per square inch or greater and used as a motor vehicle fuel or any fuel which is commonly or commercially known or sold as gasoline, including aviation gasoline.

"Grams of Reactive Organic Compound Per Liter of Material" means the weight of reactive organic compound per volume of material and can be calculated by the following equation:

$$\textit{Grams of reactive organic compounds per liter of material} = \frac{W_s - W_w - W_e}{V_m}$$

Where:
W_s = Weight of volatile compounds in grams
W_w = Weight of water in grams
W_e = Weight of exempt compounds in grams
V_m = Volume of material in liters

"Greenhouse Gas" or **"Greenhouse Gases"** means **"Greenhouse gas"** or **"greenhouse gases"** as defined in Health and Safety Code Section 38505(g).

"Hazardous Air Pollutant" means any substance listed in or pursuant to Section 112(b) of the Clean Air Act.

"Hearing Board" means the Hearing Board provided for in Section 40801 of the Health and Safety Code as appointed by the Air Pollution Control Board of Santa Barbara County.

"High-Precision Optics" means any optical element used in an electro-optical device that is designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

"Higher Heating Value" means the total heat liberated per mass of fuel burned (British thermal unit per pound), when fuel and dry air at standard conditions undergo complete combustion and all resulting products are brought to their standard states at standard conditions. "Gross heating value" shall have the same meaning as "higher heating value."

"Internal Combustion Engine" means an engine in which both the heat energy and the ensuing mechanical energy are produced inside the engine. Internal combustion engines include gas turbines, spark ignition, and compression ignition engines.

"Janitorial Cleaning" means the cleaning of building or facility components including, but not limited to, floors, ceilings, walls, windows, doors, stairs, bathrooms, furnishings, and exterior surfaces of office equipment; excluding the cleaning of work areas associated with:

1. research and development, manufacturing, and repair activities; and

2. laboratory tests and analyses (including quality assurance and quality control activities) and bench scale projects.

"Large Source" means any stationary source that does not meet the criteria of a Small Source or a Medium Source as determined by the Control Officer:

"Major Modified Stationary Source" means a modification at an existing major source which

1. will have emission increases greater than significance levels promulgated in 40 CFR 51.165 and 40 CFR 52.21, or
2. is located within 10 kilometers of a Class I area and the modification causes an impact greater than or equal to 1 microgram per cubic meter on that Class I area .

"Major Stationary Source" means a stationary source of air pollutants which emits or has the potential to emit one hundred tons per year or more of any pollutant.

"Medium Source" means any stationary source that is not a Small Source and where:

1. The Permitted Emissions for the stationary source will be less than all of the values listed below:

Reactive Organic Compounds	10.0 ton/year,
Oxides of Nitrogen (as NO_2)	10.0 ton/year,
Particulate Matter less than 10 microns	10.0 ton/year
Total Suspended Particulate Matter	10.0 ton/year
Sulfur Oxides (as SO_2)	10.0 ton/year,
Carbon Monoxide	25.0 ton/year

   and

2. The proposed source does not trigger any toxics review requirements, Negative Declaration or Environmental Impact Report where the District is the lead agency pursuant to CEQA, federal NSPS or NESHAPS, federal operating permit program requirements (with the exception of General Permits) and is not located within 1,000 feet of the outer boundary of a school site.

"Modification" means any physical change in, or any change in method of operation of, or addition to an existing stationary source or any change in hours of operation or production rate which would necessitate a change in permit conditions, except that routine maintenance or repair shall not be considered a physical change. Unless previously limited by federally enforceable permit condition, the following shall not be considered changes in method of operation:

1. An increase in the production rate or hours of operation if such increase does not exceed the operating design capacity or the actual demonstrated capacity of the stationary source as approved by the Control Officer.
2. A change in operator or ownership of a source.
3. Use of an alternate fuel or raw material, provided that such use is expressly authorized on the Permit to Operate.

A reconstructed source shall be treated as a new stationary source.

"Multiple-Chamber Incinerator" is any article, machine, equipment, contrivance, structure or part of a structure, used to dispose of combustible refuse by burning, consisting of three or more refractory lined combustion furnaces in series, physically separated by refractory walls, interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned. The refractories shall have a Pyrometric Cone equivalent of at least 17, tested according to the method described in the American Society for Testing Materials, Method C-24.

"Natural Draft Opening" means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

"Natural Gas" means gas which meets General Order 58-A of the Public Utilities Commission.

"New Source" means any stationary source, which will emit any air contaminant not previously emitted at that location.

"Nonattainment Pollutant" means any pollutant as well as precursors for which an ambient air quality standard was exceeded within the District more than three discontinuous times (or, for annual standards, more than one time) within the three years immediately preceding the date when the application for Authority to Construct was found complete, or which has been designated "nonattainment" pursuant to final rulemaking by the Environmental Protection Agency as published in the Federal Register or the Air Resources Board as published in the California Code of Regulations.

"Open Burning in Agricultural Operations" in the growing of crops or raising of fowl or animals means:

1. The burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowl or animals for the primary purpose of making a profit, or providing of livelihood, or of conducting agricultural research or instruction by an educational institution and
2. In connection with operations qualifying under Subdivision 1:
    a. The burning of grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation; and
    b. The burning of material not produced wholly from such operations, but which are intimately related to the growing or harvesting of crops and which are used in the field, such as fertilizer and pesticide sacks or containers, where the sacks or containers are emptied and burned in the field.

"Operating Parameter Value" means any minimum or maximum value established for a control equipment or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has continued to comply with an applicable emission limitation.

"Organic Materials" are defined as chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.

"Organic Solvents" means organic materials, including diluents and thinners which are liquid at standard conditions and which are used as, dissolvers, viscosity reducers or cleaning agents, except that such materials which exhibit a boiling point, as measured using ASTM D 1078-05, "Standard Test Method for Distillation Range of Volatile Organic Liquids," ASTM International, higher than 220°F at 0.5 millimeter mercury absolute pressure or having an equivalent vapor pressure shall not be considered to be organic solvents unless exposed to temperatures exceeding 220°F.

"Outer Continental Shelf Source" means "Outer Continental Shelf Source" as defined by Section 2 of the Outer Continental Shelf Lands (43 U.S.C. Section 1331, *et seq*).

"Overall Efficiency" means the emission reduction, expressed as a percentage that results from the combined effect of capture and control of affected pollutants (capture efficiency multiplied by control efficiency).

"Particulate Matter" is any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

"Permit to Operate" means the written permission, with any specified conditions required, that must be obtained from the Control Officer before any article, machine, equipment or other contrivance, the use of which may cause, increase, eliminate, reduce, or control the issuance of air contaminants before it may be operated or used.

"Person" means any person, firm, association, organization, partnership, business trust, corporation, company, contractor, supplier, installer, user, or owner, or any federal, state or local governmental agency, or public district or any officer or employee thereof.

"PM_{10}" means Particulate Matter with aerodynamic diameter of less than 10 microns.

"Photochemically Reactive Solvent" means any organic solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of organic solvent;

1. combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones, having an olefinic or cyclolefinic type of unsaturation: 5 percent, or
2. combination of aromatic compounds with 8 or more carbon atoms to the molecule, except ethylbenzene: 8 percent, or
3. combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

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

"Photoresist Coating" means any coating applied directly to a substrate to protect surface areas when chemical milling, etching, or other chemical surface operations are performed on the substrate.

"Pollutant" - See "affected pollutant"

"Portable Internal Combustion Engine" means any internal combustion engine that is portable, meaning it is carried or moved from one location to another in the normal course of business. Indicia of portability shall include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, vessel, or platform. "Portable internal combustion engine" does not include an engine used to propel nonroad equipment or a motor vehicle of any kind, including, but not limited to, a heavy duty vehicle. The engine is not portable if:

1. the engine or its replacement is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. The period during which the engine is maintained at a storage facility shall be excluded from the residency time determination. Any engine, such as a back-up or stand-by engine, that replace engine(s) at a location, and is intended to perform the same or similar function as the engine(s) being replaced, will be included in calculating the consecutive time period. In that case, the cumulative time of all engine(s), including the time between the removal of the original engine(s) and installation of the replacement engine(s), will be counted toward the consecutive time period; or

2. the engine remains or will reside at a location for less than 12 consecutive months if the engine is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or

3. the engine is moved from one location to another in an attempt to circumvent the portable residence time requirements.

"Potential to Emit" means the maximum capacity of the stationary source to emit a pollutant, including fugitive emissions, under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of

its design only if the limitation is federally enforceable. Secondary emissions do not count in determining the potential to emit.

"Precursor" means any directly emitted pollutant that, when released into the atmosphere, forms or causes to be formed or contributes to the formation of a secondary pollutant for which an ambient air quality standard has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more ambient air quality standards. The following precursor/pollutant relationships shall be used for purposes of these Rules and Regulations:

Precursor	Secondary Pollutant
Reactive Organic Compounds	Ozone The organic fraction of PM_{10}
Oxides of Nitrogen	Ozone The nitrate fraction of PM_{10}
Oxides of Sulfur	Sulfates The sulfate fraction of PM_{10}

"Process Weight Per Hour" means the total Process Weight divided by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. "Process Weight" is the total weight of all materials introduced into any specific process which may cause any discharge into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not.

"Quarterly," unless otherwise indicated, means January through March, April through June, July through September, and October through December.

"Range Improvement Burning" means the use of open fires to remove vegetation for a wildlife, game or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land.

"**Rated brake horsepower**" means the continuous brake horsepower rating specified for the engine by the manufacturer or listed on the original nameplate of the unit, unless otherwise physically limited and specified by a condition on the engine's Permit to Operate.

"**Reactive Organic Compound"** means any compound containing at least one (1) atom of carbon, except for the following exempt compounds:

1. acetone
2. ammonium carbonate
3. carbon dioxide
4. carbon monoxide
5. carbonic acid
6. dimethyl carbonate
7. ethane
8. metallic carbides or carbonates
9. methane
10. methyl acetate
11. methyl chloroform (1,1,1-trichloroethane)
12. methyl formate; $HCOOCH_3$
13. cyclic, branched, or linear completely methylated siloxane compounds
14. methylene chloride
15. parachlorobenzotrifluoride

16. perchloroethylene (tetrachloroethylene)
17. the following four classes of perfluorocarbon (PFC) compounds:
    a. cyclic, branched, or linear, completely fluorinated alkanes,
    b. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
    c. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
    d. sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
18. propylene carbonate
19. tertiary-butyl acetate; $C_6H_{12}O_2$ ("acetic acid, 1,1-dimethylethyl ester")

    Tertiary-butyl acetate (also known as t-butyl acetate or tBAc) shall be considered exempt as a reactive organic compound only for purposes of reactive organic compound emissions limitations or reactive organic compound content requirements and shall be considered a reactive organic compound for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to reactive organic compounds.
20. CFC-11 (trichlorofluoromethane)
21. CFC-12 (dichlorodifluoromethane)
22. CFC-113 (1,1,2-trichloro-1,2,2-trifluoroethane)
23. CFC-114 (1,2-dichloro 1,1,2,2-tetrafluoroethane)
24. CFC-115 (chloropentafluoroethane)
25. HCFC-22 (chlorodifluoromethane)
26. HCFC-31 (chlorofluoromethane)
27. HCFC-123 (1,1,1-trifluoro 2,2-dichloroethane)
28. HCFC-123a (1,2-dichloro-1,1,2-trifluoroethane)
29. HCFC-124 (2-chloro-1,1,1,2-tetrafluoroethane)
30. HCFC-141b (1,1-dichloro 1-fluoroethane)
31. HCFC-142b (1-chloro-1,1 difluoroethane)
32. HCFC-151a (1-chloro-1-fluoroethane)
33. HCFC-225ca (3,3-dichloro-1,1,1,2,2-pentafluoropropane)
34. HCFC-225cb (1,3-dichloro-1,1,2,2,3-pentafluoropropane)
35. HFC-23 (trifluoromethane)
36. HFC-32 (difluoromethane)
37. HFC-43-10mee (1,1,1,2,3,4,4,5,5,5-decafluoropentane)
38. HFC-125 (pentafluoroethane)
39. HFC-134 (1,1,2,2-tetrafluoroethane)
40. HFC-134a (1,1,1,2-tetrafluoroethane)
41. HFC-143a (1,1,1-trifluoroethane)
42. HFC-152a (1,1-difluoroethane)
43. HFC-161 (ethylfluoride)
44. HFC-227ea (1,1,1,2,3,3,3-heptafluoropropane)
45. HFC-236ea (1,1,1,2,3,3-hexafluoropropane)
46. HFC-236fa (1,1,1,3,3,3-hexafluoropropane)
47. HFC-245ca (1,1,2,2,3-pentafluoropropane)
48. HFC-245ea (1,1,2,3,3-pentafluoropropane)
49. HFC-245eb (1,1,1,2,3-pentafluoropropane)
50. HFC-245fa (1,1,1,3,3-pentafluoropropane)
51. HFC-365mfc (1,1,1,3,3-pentafluorobutane)
52. HFE-7000; n-$C_3F_7OCH_3$; (1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane)

53. HFE-7100; $(CF_3)_2CFCF_2OCH_3$; (2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane) or $C_4F_9OCH_3$; (1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane)
54. HFE-7200; $(CF_3)_2CFCF_2OC_2H_5$; (2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane) or $C_4F_9OC_2H_5$; (1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane)
55. HFE-7300; (1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy- 4-trifluoromethyl-pentane)
56. HFE-7500; (3-ethoxy- 1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2- (trifluoromethyl) hexane)

Rule 202.D.10.l.1 requires an Authority to Construct and Permit to Operate when using more than one gallon per year per stationary source of any one of the following exempt compounds:

(6)	dimethyl carbonate,	(37)	HFC-43-10mee,
(12)	methyl formate,	(50)	HFC-245fa,
(33)	HCFC-225ca,	(51)	HFC-365mfc, or
(34)	HCFC-225cb,	(53)	HFE-7100 [$(CF_3)_2CFCF_2OCH_3$ or $C_4F_9OC_2H_5$]

Rule 202.D.10.l.2 requires an Authority to Construct and Permit to Operate when using more than one gallon per year per stationary source of: (19) tertiary-butyl acetate.

The one gallon per year per stationary source limit is a per compound limit for each compound in aggregate for the entire stationary source and includes any amounts of the compound used in mixed or diluted product.

"Reactive Organic Compound Composite Partial Pressure" means the sum of the partial pressures of compounds defined as reactive organic compounds. Reactive organic compound composite pressure shall be calculated as follows:

$$PP_C = \frac{\sum_{i=1}^{n} W_i \ VP_i \ / MW_i}{W_w / MW_w + \sum_{e=1}^{n} W_e / MW_e + \sum_{i=1}^{n} W_i / MW_i}$$

Where:
- W_i = Weight of the "i"th reactive organic compound, in grams
- W_w = Weight of water, in grams
- W_e = Weight of the "e"th exempt compound, in grams
- MW_i = Molecular weight of the "i"th reactive organic compound, in grams per grams-mole
- MW_w = Molecular weight of water, in grams per grams-mole
- MW_e = Molecular weight of the "e"th exempt compound, in grams per grams-mole
- PP_c = Reactive organic compound composite partial pressure at 20 degrees Celsius, in millimeters of mercury
- VP_i = Vapor pressure of the "i"th reactive organic compound at 20 degrees Celsius, in millimeters of mercury

"Reasonable Further Progress" means annual incremental reductions in emissions of the relevant air pollutant and its precursors required to ensure attainment of the applicable air quality standard by the applicable date.

"Reconstructed Source" means any source undergoing reconstruction where fixed capital costs of the new components exceeds fifty percent (50%) of the fixed capital cost of a comparable entirely new source. Fixed capital cost means the capital needed to provide all depreciable components.

"**Regulation"** means one of the major subdivisions of the Rules of the Air Pollution Control District of Santa Barbara County.

"Rotogravure Printing" means any printing process where the image area is etched or engraved relative to the surface of the image cylinder. Ink is transferred from minute etched wells on a plate cylinder to a substrate, which is supported by an impression roller, with excess ink removed by a doctor blade. The substrate is fed through the printing press in continuous rolls.

"Rule" means a rule of the Air Pollution Control District of Santa Barbara County.

"Scientific Instrument" means an instrument, including the components, assemblies, and subassemblies used in their manufacture, and associated accessories and reagents, that is used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.

"Section" means section of the Health and Safety Code of the State of California unless some other statute is specifically mentioned.

"Secondary Emissions" means emissions which would occur as a result of the construction or operation of a stationary source or modification, impact the same general area, but do not come from the source itself. Secondary emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the source or modification. Secondary emissions do not include any emissions which come directly from a mobile source such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.

"Small Source" means a stationary source that meets the following criteria as determined by the Control Officer:

1. The Permitted Emissions from the stationary source will be less than each of the values listed below:

Reactive Organic Compounds	5.0 ton/year,
Oxides of Nitrogen (as NO_2)	5.0 ton/year,
Particulate Matter less than 10 microns	5.0 ton/year
Total Suspended Particulate Matter	5.0 ton/year
Sulfur Oxides (as SO_2)	5.0 ton/year,
Carbon Monoxide	25.0 ton/year

and

2. The proposed source does not trigger any toxics review requirements, Negative Declaration or Environmental Impact Report where the District is the lead agency pursuant to CEQA, federal NSPS or NESHAPS, federal operating permit program requirements (with the exception of General Permits) and is not located within 1000 feet of the outer boundary of a school site, and
3. The permit application must deal exclusively with equipment that is listed by the Control Officer as certified and must not require a source test to demonstrate compliance, and
4. The applicant must be willing to accept standard permit conditions as established by the Control Officer.

"Solvent" means "Organic Solvent."

"Solvent Cleaning" means any activity, operation, or process (including, but not limited to, surface preparation, cleanup, or wipe cleaning) performed outside of a solvent cleaning machine, that uses solvent to remove uncured adhesives, uncured coatings, uncured inks, uncured polyester resin material, uncured sealant, or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment, and general work areas. Cleaning spray equipment used for the application of coating, adhesive, ink, polyester resin material, or sealant is also considered to be solvent cleaning irrespective of the spray material being cured.

"Solvent Cleaning Machine" means any device or piece of equipment that uses solvent liquid or vapor to remove soils, moisture, or other contaminants from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch cold, batch vapor, in-line cold, in-line vapor, remote reservoir, and gas-path solvent cleaners, as defined in Rule 321. Buckets, pails, and beakers with capacities of 3.785 liters (1.00 gallon) or less are not considered solvent cleaning machines. However, the use of such a container or similar containers (e.g., hand-held spray bottles) with a solvent for cleaning is considered to be

solvent cleaning. Any device or piece of equipment used exclusively for stripping shall not be considered to be a solvent cleaning machine.

"South Coast Air Quality Management District Method 303-91, "Determination of Exempt Compounds," August 1996," means the test method adopted by and in effect by the South Coast Air Quality Management District on June 21, 2012.

"South Coast Air Quality Management District Method 313-91, "Determination of Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry," June 1993," means the test method adopted by and in effect by the South Coast Air Quality Management District on June 21, 2012.

"Space Vehicle" means any man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere. This definition includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons. Also included is auxiliary equipment associated with test, transport, and storage, which through contamination can compromise the space vehicle performance.

"Spark Ignition Engine" means a gasoline-fueled engine or other engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

"Specialty Equipment" means portable engines used to power equipment located in the Outer Continental Shelf or State Territorial Waters that satisfy all of the following conditions:

1. The portable engine is ineligible for registration in the State Portable Equipment Registration Program; and

2. A similar portable engine or equipment unit capable of performing the specialty work is not registered in the State Portable Equipment Registration Program or, if registered is not available for use; and

3. The portable engine/equipment unit performs a unique function or activity outside the normal scope of drilling or construction activities; and

4. The equipment will be used for less than 500 hours per stationary source in any calendar year and emit not more than 10 tons per stationary source of oxides of nitrogen, oxides of sulfur, reactive organic compounds, or particulate matter in any calendar year; and

5. Use of the equipment is not recurrent from year to year.

"Specialty Equipment Emergency Use" means that conditions giving rise to the use of the specialty equipment were due to 1) conditions beyond the reasonable control of the stationary source, including but not limited to the breakdown of essential drilling or construction equipment, and 2) the use of the specialty equipment is necessary to complete essential short-term projects.

"Standard Conditions" for gases means a temperature of 60 degrees Fahrenheit (15.6 degrees Celsius) and a pressure of 14.7 pounds per square inch absolute (760 mm of Mercury). Results of all analyses and tests shall be calculated and reported at this temperature and pressure.

"Stationary Source" means any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. "Fugitive emissions" means those emissions of pollutants which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

"Installation" includes any operation, article, machine, equipment, contrivance, or grouping of equipment belonging to the same two-digit standard industrial classification code, which emits or may emit any affected pollutant, and located on one or more contiguous properties and under common control.

"Building, structure, or facility" includes all pollutant-emitting activities including those located in California coastal waters adjacent to the District boundaries and those areas of Outer Continental Shelf waters for which the District is the corresponding onshore area which:

a) belong to the same industrial grouping

b) are located on one or more contiguous or adjacent properties (except for activities located in California coastal waters or are on the Outer Continental Shelf), and

c) are under the same or common ownership, operation, or control or which are owned or operated by entities which are under common control.

Pollutant emitting activities shall be considered as part of the same industrial grouping if they are part of a common production process. (Common production process includes industrial processes, manufacturing processes, and any connected processes involving a common raw material.)

"Common operations" includes operations which are related through dependent processes, storage or transportation of the same or similar products or raw material. Emissions from all marine vessels, including cargo carriers, servicing or associated with a stationary source shall be considered emissions from the stationary source while operating within:

a) the District, including California Coastal Waters adjacent to the District (Figure 102);

b) the Outer Continental Shelf for which the District is the corresponding onshore area; and

c) 25 miles of an Outer Continental Shelf source for which the District is the corresponding onshore area.

The emissions from marine vessels, including cargo carriers, shall include reactive organic compound vapors that are displaced into the atmosphere; fugitive emissions; combustion emissions in the waters described above; and emissions from the loading and unloading of cargo. The term "Cargo Carrier" shall not include trains or vehicles.

As applied to an attainment pollutant, "stationary source" shall be interpreted to mean facility wide. The term "installation" shall have the same meaning as "building, structure, or facility."

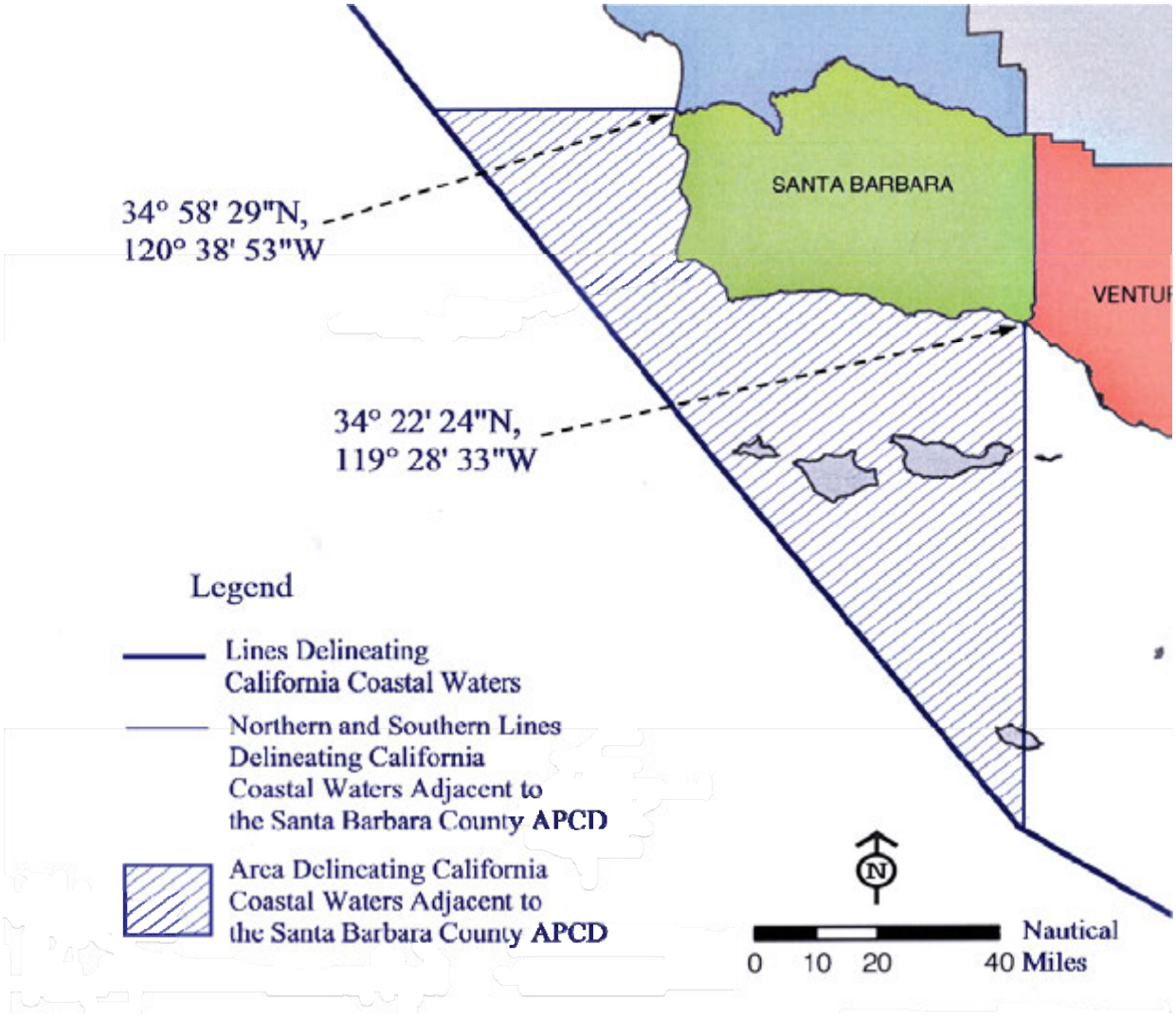

Figure 102. MAP DEPICTING THE CALIFORNIA COASTAL WATERS ADJACENT TO THE SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT

"Stripping" means the use of solvent to remove materials such as cured adhesives, cured inks, cured sealants, cured or dried paints, cured or dried paint residues, or temporary protective coatings.

"Surface Preparation" means the removal of contaminants such as dust, soil, oil, grease, moisture, etc., prior to application of an adhesive, coating, ink, polyester resin material, or sealant.

"Temporary Total Enclosure" means any total enclosure that is constructed for the sole purpose of measuring the emissions from an affected source that are not delivered to an emission control device. A temporary total enclosure must be constructed and ventilated (through stacks suitable for testing) so that it has minimal impact on the performance of the permanent emission capture system. A temporary total enclosure will be assumed to achieve total capture of fugitive emissions if it meets the requirements found in 40 CFR Section 63.750(g)(4) and if all natural draft openings are at least four duct or hood equivalent diameters away from each exhaust duct or hood. Alternatively, the owner or operator may apply to the Control Officer for approval of a temporary enclosure on a case-by-case basis.

"Thermal Incinerator" means any device that burns reactive organic compounds or toxic air contaminants in air by direct application of heat. Thermal incinerators are usually equipped with burners, refractory lined chambers, heat recovery equipment, and process controllers.

"Total Enclosure" means any permanent structure that is constructed around a gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100 percent capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and any natural draft openings such as those that allow raw materials to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief, occasional openings of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening. The average inward face velocity across the natural draft openings of the enclosure shall be calculated including the area of such access doors. The drying oven itself may be part of the total enclosure. An enclosure that meets the requirements found in 40 CFR Section 63.750(g)(4) is a permanent total enclosure.

"Total Suspended Particulates" means "particulate matter", as defined in this rule.

"Toxic Air Contaminant" means "Toxic air contaminant" as defined in Health and Safety Code Section 39655.

"Transfer Efficiency" means the ratio of the weight of coating solids adhering to the object being coated to the weight of coating solids used in the application process, expressed as a percentage.

"Waste Solvent Residue" means sludge that may contain dirt, oil, metal particles, and/or other undesirable waste products concentrated after heat distillation of solvent either in a solvent cleaning machine itself or after distillation in a separate still.

"Wipe Cleaning" means a solvent cleaning activity performed by hand rubbing an absorbent material such as a rag, paper, sponge, brush, or cotton swab containing solvent.

"Zones of Santa Barbara County"

1. The Northern Zone of Santa Barbara County is defined as that portion of Santa Barbara County described in Section 60103(b) of Title 17 of the California Administrative Code as written on December 21, 1968 (Register 68, No. 48), State waters located offshore of that portion of Santa Barbara County lying north of the latitude of the mouth of Jalama Creek and those areas of the Outer Continental Shelf waters for which the District has been designated the corresponding onshore area by the Environmental Protection Agency.
2. The Southern Zone of Santa Barbara County is defined as that portion of Santa Barbara County described in Section 60104(c) of Title 17 of the California Administrative Code as written on December 21, 1968 (Register 68, No. 48), State waters located offshore of that portion of Santa Barbara County lying south of the latitude of the mouth of Jalama Creek and those areas of the Outer Continental Shelf waters for which the District has been designated the corresponding onshore area by the Environmental Protection Agency.

5/23/79

~~President, Office of Management and Budget.~~

NN. Stationary Sources Used to Load or Unload Cargo from Carriers:

The Control Officer shall consider all carriers (except motor vehicles) to be part of the stationary source at which they load or unload cargo. All emissions from such carriers shall be considered emissions from such stationary sources including emissions from carrier engines, purging or any other method of venting vapors, loading, unloading, storage processing, and transfer of cargo.

OO. Zones of Santa Barbara County.

1. The Northern Zone of Santa Barbara County is defined as that portion of Santa Barbara County described in Section 60103(b) of Title 17 of the California Administrative Code.

2. The Southern Zone of Santa Barbara County is defined as that portion of Santa Barbara County described in ~~Section 60104(c) of Title 17 of the California Administrative Code~~.

RULE 103. SEVERABILITY.

If any Rule or any portion of a Rule is, for any reason, held to be invalid or unconstitutional, such finding shall have no effect on the enforceability of the remaining Rules and/or portions of Rules, which shall continue to be in full force and effect.

~~RULE 104. AGRICULTURAL BURNING.~~

Nothing in ~~these~~ regulations shall be construed as prohibiting agricultural ~~burning~~ authorized pursuant to Division 26, Part 4, Chapter 3, Art. ~~Article 3 (commencing with Section 48150) of the Health and Safety Code.~~

SANTA BARBARA AIR POLLUTION CONTROL DISTRICT

RULE 104. AGRICULTURAL BURNING.

(Adopted 10/18/1971, readopted 10/23/1978)

Nothing in these Regulations shall be construed as prohibiting agricultural burning authorized pursuant to Division 26, Part 4, Chapter 3, Article 3 (commencing with Section 41850) of the Health and Safety Code.

Santa Barbara
10/25/91

RULE 105. APPLICABILITY. (Adopted 7/30/91)

These Rules and Regulations shall apply to all sources within the County of Santa Barbara. These Rules and Regulations shall also apply to sources located on the Outer Continental Shelf, offshore of Santa Barbara County, for which the District is the corresponding onshore area, as authorized in Title VIII, Section 801, of the 1990 Federal Clean Air Act Amendments.

RULE 201. PERMITS REQUIRED. (Adopted 10/18/1971, revised 5/1/1972, readopted 10/23/1978, revised 7/2/1979, 4/17/1997, and 6/19/2008)

A. Applicability

This rule applies to any person who builds, erects, alters, replaces, operates or uses any article, machine, equipment, or other contrivance which may cause the issuance of air contaminants.

B. Exemptions

Exemptions to this rule appear in Rule 202 (Exemptions to Rule 201).

C. Definitions

See Rule 102 for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Erect" means the setting up, installing, or assembling of equipment that can be moved from one location to another and that must be stationary in order to operate.

D. Requirement - Authority to Construct

Any person building, erecting, altering, replacing, or using any article, machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, shall first obtain an Authority to Construct for such construction or use from the Control Officer. An Authority to Construct issued to a source shall remain in effect until the Permit to Operate the equipment for which the application was filed is granted or denied or the application expires.

E. Requirement - Permit to Operate

1. Source Compliance Demonstration Period

After issuance of an Authority to Construct and prior to issuance of a Permit to Operate, the Control Officer may require an applicant to undergo a Source Compliance Demonstration Period, to evaluate each article, machine, equipment or other contrivance listed within the Authority to Construct. The applicant must show that all of the listed equipment is so designed, controlled or equipped with such air pollution control equipment, that it may be expected to be operated in compliance with Sections 41700 or 41701 of the Health and Safety Code and these Rules and Regulations and any limitation or permit condition of the Authority to Construct.

2. Permit to Operate

Before any article, machine, equipment or other contrivance described in Rule 201(D) may be operated or used, a written permit shall be obtained from the Control Officer. No Permit to Operate or use shall be granted either by the Control Officer or the Hearing Board for any article, machine, equipment or contrivance described in Rule 201(D) constructed or installed without authorization as required by Rule 201(D) until the applicant presents such information or analysis as will disclose the nature, extent, quantity or degree of air contaminants which the source may discharge. The Control Officer may also require the same information if an article, machine, equipment or contrivance is altered or modified to conform to the standards set forth in these Rules and Regulations. Further, the Control Officer may require that the disclosures described be certified by a professional engineer registered by the State of California.

3. Consolidated Authority to Construct/Permit to Operate

The Control Officer may issue a consolidated Authority to Construct/Permit to Operate.

F. Requirement - Expiration of Authority to Construct

If unused, an Authority to Construct shall automatically expire one year from the date of issuance. An application for Permit to Operate existing equipment may be canceled one year from the date of filing of the application, if unused.

G. Requirement - Permit Reissuance and Reevaluation

A Permit to Operate shall be valid for one year and shall be eligible for extension provided the permittee is in compliance with permit conditions as determined by the District's annual compliance inspection and upon the payment of fees. The Control Officer may prohibit the reissuance of a Permit to Operate, or revise it as authorized by law, if the article, machine, equipment or contrivance subject to the permit does not comply with all applicable orders, rules and regulations of the District and CARB, and Division 26 of the Health and Safety Code, including Health and Safety Code Sections 42301(e) and (f). A Permit to Operate shall be reevaluated by the Control Officer every three years to determine that the permit conditions are adequate to ensure compliance with, and the enforceability of, District rules and regulations applicable to the source.

H. Requirement - Notification to Officials

The Control Officer shall notify the building department or division of every governmental agency, excluding federal agencies, within the District boundaries, on an annual basis, that the owner or authorized agent of development projects which do not require a development permit other than a building permit, will need to comply with the requirements for a permit for construction or modification from the District. In addition, to assist the County and each city to comply with Government Code Section 65850.2, the Control Officer will provide the building officials with relevant Authority to Construct permit information to be distributed to building permit applicants.

I. Requirement - Posting of Authority to Construct or Permit to Operate

1. A person who has been granted under this Rule an Authority to Construct or a Permit to Operate for any article, machine, equipment, or other contrivance described in Section D or E of this rule shall maintain the Authority to Construct or Permit to Operate, or an approved facsimile readily available to the District and operating personnel at all times on the operating or construction premises, or at a location disclosed to the Control Officer, and shall provide it upon request to the Control Officer or to the Control Officer's representative.

2. No person shall deface, alter, forge, counterfeit, or falsify a permit, or facsimile thereof issued or maintained pursuant to the provisions of this Rule.

J. Requirements - Absence of Permitted Equipment

Items of equipment, other than portable internal combustion engines which are eligible for registration pursuant to Health & Safety Code 41750 *et seq*, for which a Permit to Operate is granted, shall be at all times present within the boundaries of the stationary source unless the operator shows to the satisfaction of the District that the absence of the equipment is due to its being rebuilt or otherwise reworked offsite, or in temporary storage onsite. Failure to make this showing at the time of permit reevaluation and failure to obtain a permit modification listing the absent equipment shall result in removal of the absent equipment from the Permit to Operate upon the next reevaluation of the permit.

K. Requirement - Inoperability of Permitted Equipment

A permitted item of equipment found in inoperable condition must be demonstrated by the operator, to the satisfaction of the Control Officer, either to function in compliance with applicable permit conditions or to have no pollutant emissions. This section shall not apply to well heads.

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RULE 202. EXEMPTIONS TO RULE 201.

An Authority to Construct or Permit to Operate shall not be required for:

A. Vehicles as defined by the Vehicle Code of the State of California but not including any article, machine, equipment or other contrivance mounted on such vehicle that would otherwise require a permit under the provisions of these Rules and Regulations.

B. Vehicles used to transport passengers or freight.

C. Equipment utilized exclusively in connection with any structure, which structure is designed for and used exclusively as a dwelling for not more than four families.

D. The following equipment are exempt, providing hazardous or volatile organic compounds are not emitted at or beyond the limits of these Rules and Regulations:

1. Comfort air conditioning or comfort ventilating systems which are not designed to remove air contaminants generated by or released from specific units or equipment.

2. Refrigeration units except those used as, or in conjunction with, air pollution control equipment.

3. Piston type internal combustion engines.

4. Water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers.

5. Equipment used exclusively for steam cleaning.

6. Presses used exclusively for extruding metals, minerals, plastics or wood.

7. Porcelain enameling furnaces, porcelain enameling drying ovens, vitreous enameling furnaces or vitreous enameling ovens.

8. Presses used for the curing of rubber products and plastic products.

9. Equipment used exclusively for space heating, other than boilers.

10. Equipment used for hydraulic or hydrostatic testing.

11. All sheet-fed printing presses, and all other printing presses without driers.

12. Tanks, vessels and pumping equipment used exclusively for the storage or dispensing of fresh commercial or purer grades of:

a. Sulfuric acid with an acid strength of 99 percent or less by weight.

b. Phosphoric acid with an acid strength of 99 percent or less by weight.

c. Nitric acid with an acid strength of 70 percent or less by weight.

13. Ovens used exclusively for the curing of plastics which are concurrently being vacuum held to a mold or for the softening or annealing of plastics.

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

15. Equipment used exclusively to mill or grind coating and molding compounds where all materials charged

are in a paste form.

16. Crucible type or pot type furnaces with a brimful capacity of less than 450 cubic inches of any molten metal.

17. Equipment used exclusively for the melting or applying of wax where no organic solvents, diluents or thinners are used.

18. Equipment used exclusively for bonding lining to brake shoes.

19. Lint traps used exclusively in conjunction with dry cleaning tumblers.

20. Equipment used in eating establishments for the purpose of preparing food for human consumption.

21. Equipment used exclusively to compress or hold dry natural gas.

22. Tumblers used for the cleaning or deburring of metal products without abrasive blasting.

23. Shell core and shell-mold manufacturing machines.

24. Molds used for the casting of metals.

25. Abrasive blast cabinet-dust filter integral combination units where the total internal volume of the blast section is 50 cubic feet or less.

26. Batch mixers of 5 cubic feet rated working capacity or less.

27. Equipment used exclusively for the packaging of lubricants or greases.

28. Equipment used exclusively for the manufacture of water emulsions of asphalt, greases, oils or waxes.

29. Ovens used exclusively for the curing of vinyl plastisols by the closed mold curing process.

30. Equipment used exclusively for conveying and storing plastic pellets.

31. Equipment used exclusively for the mixing and blending of materials at ambient temperature to make water based adhesives.

32. Smokehouses in which the maximum horizontal inside cross-sectional area does not exceed 20 square feet.

33. Platen presses used for laminating.

E. The following equipment or any exhaust system or collector serving exclusively such equipment:

1. Blast cleaning equipment using a suspension of abrasive in water.

2. Ovens, mixers and blenders used in bakeries where the products are edible and intended for human consumption.

3. Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity or any combination thereof.

4. Laboratory equipment used exclusively for chemical or physical analyses and bench scale laboratory equipment.

5. Equipment used for inspection of metal products.

6. Confection cookers where the products are edible and intended for human consumption.

7. Equipment used exclusively for forging, pressing, rolling or drawing of metals or for heating metals immediately prior to forging, pressing, rolling or drawing.

8. Die casting machines.

9. Atmosphere generators used in connection with metal heat treating processes.

10. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy.

11. Brazing, soldering or welding equipment.

12. Equipment used exclusively for the sintering of glass or metals.

13. Equipment used for buffing (except automatic or semi-automatic tire buffers) or polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic artwork, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, asbestos, carbon or graphite.

14. Equipment used for carving, cutting, drilling, surface grinding, planing, routing, sanding, sawing, shredding or turning of wood, or the pressing or storing of sawdust, wood chips or wood shavings.

15. Equipment using aqueous solutions for surface preparation, cleaning, stripping, etching (does not include chemical milling) or the electrolytic plating with electrolytic polishing of, or the electrolytic stripping of brass, bronze, cadium, copper, iron, lead, nickel, tin, zinc, and precious metals.

16. Equipment used for washing or drying products fabricated from metal or glass, provided that no volatile organic materials are used in the process and that no oil or solid fuel is burned.

17. Laundry dryers, extractors or tumblers used for fabrics cleaned only with water solutions of bleach or detergents.

18. Foundry sand mold forming equipment to which no heat is applied.

19. Ovens used exclusively for curing potting materials or casting made with epoxy resins.

20. Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air.

21. Equipment used for compression molding and injection molding of plastics.

22. Mixers for rubber or plastics where no material in powder form is added and no organic diluents or thinners are emitted.

23. Equipment used exclusively to package pharmaceuticals and cosmetics or to coat pharmaceutical tablets.

24. Roll mills or calendars for rubber or plastics where no organic diluents or thinners are emitted.

25. Equipment used exclusively to grind, blend or package tea, cocoa, spices or roasted coffee.

26. Vacuum producing devices used in laboratory operations or in connection with other equipment which is exempt by Rule 202.

F. Steam generators, steam superheaters, water boilers, water heaters, and closed heat transfer systems that have a maximum heat input rate of less than 250,000,000 British Thermal Units (BTU) per hour (gross), and are fired exclusively with one of the following:

1. Natural gas.

2. Liquefied petroleum gas.

3. A combination of natural and liquefied petroleum gas.

G. Natural draft hoods, natural draft stacks or natural draft ventilators.

H. Containers, reservoirs, or tanks used exclusively for:

1. Dipping operations for coating objects with oils, waxes or greases where no organic solvents, diluents or thinners are used.

2. Dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents.

3. Storage of liquefied gases.

4. Unheated storage of organic materials with an initial boiling point of 300° F. or greater.

5. The storage of fuel oils with a gravity of 25° API or lower.

6. The storage of lubricating oils.

7. The storage of fuel oils with a gravity of 40° API or lower and having a capacity of 10,000 gallons or less.

8. The storage of organic liquids except gasoline, normally used as solvents, diluents or thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins or other surface coatings, and having a capacity of 6,000 gallons or less.

9. The storage of liquid soaps, liquid detergents, vegetable oils, waxes or wax emulsions.

10. The storage of asphalt.

11. Unheated solvent dispensing containers, unheated non-conveyorized solvent rinsing containers or unheated non-conveyorized coating dip tanks of 100 gallons capacity or less.

12. The storage of gasoline having a capacity of 1500 gallons or less.

13. Transporting materials on streets or highways.

I. Equipment used exclusively for heat treating glass or metals, or used exclusively for case hardening, carburizing, cyaniding, nitriding, carbonitriding, siliconizing, or diffusion treating of metal objects.

J. Crucible furnaces, pot furnaces or induction furnaces, with a capacity of 1000 pounds or less each, in which no sweating or distilling is conducted and from which only the following metals are poured or in which only the following metals are held in a molten state:

1. Aluminum or any alloy containing over 50 percent aluminum.

2. Magnesium or any alloy containing over 50 percent magnesium.

3. Lead or any alloy containing over 50 percent lead.

4. Tin or any alloy containing over 50 percent tin.

5. Zinc or any alloy containing over 50 percent zinc.

6. Copper.

7. Precious metals.

K. Vacuum cleaning systems used exclusively for industrial, commercial or residential housekeeping purposes.

L. Structural changes which cannot change the quality, nature or quantity of air contaminant emissions.

M. Repairs or maintenance not involving structural changes to any equipment for which a permit has been granted, providing emissions are not increased.

N. Identical replacements in whole or in part of any article, machine, equipment or other contrivance where a Permit to Operate had previously been granted for such equipment under Rule 201, providing emissions are not increased.

RULE 203. TRANSFER. (Adopted 10/18/1971, revised 5/1/1972, readopted 10/23/1978, revised 4/17/1997)

A. Applicability

This Rule shall apply to any person transferring operation or ownership of permitted equipment.

B. Exemptions

None.

C. Definitions

See Rule 102 for definitions.

D. Requirements

1. Transfer of Permits

An Authority to Construct or Permit to Operate shall not be transferable, whether by operation of law or otherwise, either from one location to another, or from one piece of equipment to another, except for those items specifically noted on the permit as being portable and/or relocatable.

Any application to transfer a permit from one permit holder to another shall be accompanied by a filing fee as specified in Rule 210, Schedule F. A change in business name only is not a transfer and shall not be assessed a fee.

An application for the transfer of ownership only shall constitute a temporary Permit to Operate if authorized by Health and Safety Code Section 42301(f). The Control Officer shall approve an application for the transfer of a permit if all of the following requirements are met:

a. the article, machine, equipment, or contrivance subject to the permit is in compliance with all applicable orders, rules, and regulations of the District, Air Resources Board and the Environmental Protection Agency;

b. a written agreement or other written proof of transfer of ownership deemed sufficient by the Control Officer which specifies the date of ownership transfer has been submitted to the District;

c. the permit has been reviewed by the District to determine that permit conditions are adequate to ensure compliance with, and enforceability of, District rules and regulations applicable to the article, machine or contrivance for which the permit was issued;

d. where D(1)(c) has not been met, the Control Officer shall require that the permit be revised to specify the permit conditions necessary in accordance with all applicable rules and regulations; and

e. all fees associated with the permit have been paid.

2. An application for transfer of a permit shall be filed within 30 days of change of ownership or operator.

RULE 204. APPLICATIONS. (Adopted 10/18/1971, revised 5/1/1972, readopted 10/23/1978, revised 7/1979, 8/8/1988 and4/17/1997)

A. Applicability

This rule shall apply to any person applying for an Authority to Construct or a Permit to Operate.

B. Exemptions

None.

C. Definitions

See Rule 102 for definitions.

D. Requirement - Permit Application Completeness

Every application for an Authority to Construct or Permit to Operate required under Rule 201 shall be filed in the manner and form prescribed by the Control Officer, and shall give all the information necessary to make the determination required for the issuance of a permit. This information includes, but is not limited to, analyses, plans, or specifications which will disclose the nature, extent, quantity or degree of air contaminants which are, or may be, discharged by the source for which the permit was applied. The Control Officer may, during the processing of the application request an applicant to clarify, amplify, correct, or otherwise supplement the information submitted in the application. The application shall be submitted and all information therein shall be attested to be accurate to the best knowledge of the applicant.

E. Requirements - Information Required

1. General Information

   a. This section outlines information required of applicants seeking permits to construct or modify pollution sources or control devices and specifies time frame for processing required of the District. All information required pursuant to District Rules and Regulations, and specified by the Control Officer on a list(s) maintained pursuant to Government Code Section 65940, shall be submitted before an application can be considered to be complete.

   b. The information requirements are divided into five parts. Section E.2 of this rule identifies the information required of all applicants seeking permits. Section E.3 of this rule identifies additional information required for applications where Best Available Control Technology, but not Air Quality Impact Analysis, is mandatory. Section E.4 of this rule identifies further information required for applications where Air Quality Impact Analysis is mandatory. Where a modified source is subject to Best Available Control Technology or Air Quality Impact Analysis, some of the information required in this rule may also be required for the existing portion of the facility. Section E.5 of this rule identifies emission offset information requirements and Section E.6 of this rule identifies health risk assessment information requirements.

   c. The District urges all applicants to discuss their projects with our staff prior to the filing of applications. If ambient monitoring data is needed, these discussions should take place more than a year prior to application. For some projects, it may not be necessary to submit all the information listed to have an application deemed complete.

Consultation with District staff will expedite the process by identifying the specific information that will be required of an applicant.

d. Prior to filing an application with the District, when applicable, all applicants are urged to participate fully in the early stages of the environmental review process being undertaken by the lead agency for the applicant's project in order: (1) to be apprised of the applicable air quality and other environmental constraints, and (2) to make such project modifications as may be necessary to satisfy those constraints.

e. Results of all analyses and tests submitted to the District shall be calculated and reported at standard conditions. Such results shall contain sample calculations that verify standard conditions.

f. An applicant seeking an exemption provided for in any rule or regulation of the District must supply the Control Officer with all information necessary, including applicable emission calculation sheets, to determine whether such an exemption applies.

g. Where offsets are required and the applicant proposes to obtain them from the Source Register, the applicant shall obtain them prior to Authority to Construct approval in accordance with Regulation VIII and Section E.5 of this Rule.

2. Information Required - Applications

All applications for an Authority to Construct shall be accompanied by information sufficient to make a completeness determination. The Control Officer shall maintain a list(s) pursuant to Government Code Section 65940 specifying information required of an applicant for a permit. The District will provide the applicant with one or more lists which specify in detail the information required and will indicate the criteria which the District will apply in order to determine application completeness.

3. Information Required - Best Available Control Technology

All applicants for an Authority to Construct which require Best Available Control Technology shall submit the following:

a. Best Available Control Technology - Nonattainment Review

1) Individual Best Available Control Technology determinations pursuant to Rule 802 must address air pollution controls for each pollutant subject to review at a stationary source. It is the applicant's responsibility to submit a Best Available Control Technology proposal for evaluation by the District.

2) Justification of selected control technology as Best Available Control Technology.

3) Documentation of technical infeasibility which would preclude the use of a more effective control technology;

4) Operating conditions at which the maximum daily and hourly emissions will be generated (baseline parameters).

5) Maximum daily and hourly emissions at the conditions, described in (4) above, for each potential control technology and the basis of how the emission rates were estimated.

6) Calculations, emission data, and/or other information to determine control effectiveness (percent pollutant removed) of each potential control technology.

7) Emission limits shall be expressed both in terms of an emissions cap (e.g. pounds per day) and in terms which ensure compliance at any operating capacity (e.g., pounds per million British thermal units, or parts per million by volume). Where appropriate, on a case-by-case basis, emission limits may be expressed in alternate terms for determining compliance with the Best Available Control Technology Standards. The source must comply with both limits to demonstrate compliance.

8) Applicants shall describe how the selected Best Available Control Technology is to be monitored for its emission reduction effectiveness.

b. Best Available Control Technology Information - Prevention of Significant Deterioration Requirements

In addition to the requirements of Section E.3.a. of this Rule, sources which trigger Best Available Control pursuant to Rule 803 shall submit the following information. The District shall consider technical feasibility and energy, environmental (cross-media) and economic impacts in evaluating an applicant's Best Available Control Technology proposal:

1) A comprehensive list of potential control technologies;

2) A ranking of potential control technologies by control effectiveness (percent pollutant removed) in accordance with the Environmental Protection Agency's Top-Down procedure;

3) Itemized capital cost, including installation and/or modification cost for each proposed control technology;

4) Itemized annual operating cost, including fuel cost for each proposed control technology;

5) Energy impacts of each proposed control technology (British thermal units, kilowatt hours);

6) Estimated equipment life and its salvage value.

4. Information Required - Air Quality Impact Analysis

a. All applicants for an Authority to Construct new or modified sources which require an Air Quality Impact Analysis shall submit the following:

1) A description of any monitoring stations that may be installed by applicant.

2) Sufficient data, approved by the Control Officer consistent with the Air Quality and Meteorological Monitoring Protocol for Santa Barbara County, California, to perform an air quality impact analysis from all emission release points including fugitive emissions. The data shall include:

a) At least one full calendar year (twelve consecutive months) of meteorological data consistent with Appendix W of 40 CFR 51 Guideline on Air Quality Models.

b) Topographical data including receptor points by Universal Transverse Mercator coordinates and map of receptor points and source.

c) At least one full calendar year (twelve consecutive months) of recent air quality background data from the last 3 years prior to application completeness.

d) Computer modeling data:

(1) Mass emission rate and stack concentration of air pollutants.
(2) Stack diameter.
(3) Stack location in Universal Transverse Mercator coordinates.
(4) Stack height above ground level.
(5) Exhaust temperature.
(6) Exhaust velocity.
(7) Exhaust flow rate (volumetric).
(8) Buildings whose wakes may affect the plume of the stack, including Universal Transverse Mercator coordinates of building.
(9) Dimensions (length, width, height) of the buildings identified above.
(10) Maximum modeled concentration of air pollutants for all averaging times of concern and all applicable receptors of concern.
(11) Model used to perform air quality impact analysis.
(12) Model input and output files on computer diskette and hardcopy.
(13) Name, address, telephone number, and qualifications of company and/or person who performed air quality impact analysis.
(14) Terrain description and effects.

3) Identify all facilities within the air basin that are owned or operated by the applicant and the compliance status of each.

4) Power Consumption of Facility (for PSD permits only)

a) Total amount of electrical power to be consumed by the new facility or the increase in the amount of electrical power to be consumed due to the modification.

b) Percentage of electrical power provided by off-site generating facilities; identify the source of power.

5) Cargo Carriers

List the frequency of visits, describe types and sizes of all cargo carriers (other than motor vehicles), identify nature of cargo, and conditions under which the cargo is transferred.

6) For major stationary sources, provide an analysis of alternative sites, sizes, production processes, and environmental control techniques for the proposed source that compares the benefits of the proposed source to its environmental and social costs.

5. Information Required - Description of Emission Reduction Credits to be Used as Offsets

If offsets are required for the project, then information sufficient to determine the adequacy of Emission Reduction Credits must be submitted before an Authority to Construct application will be deemed complete. In addition, Emission Reduction Credits proposed for use must be documented in the following ways:

a. If a source is proposed as an offset, the date of issue and number of the existing Permit to Operate and the complete application for the Emission Reduction Credits.

b. If the Emission Reduction Credits proposed for use have been registered by the District, the Emission Reduction Credit certificates identifying numbers and date of issue shall be included in the Authority to Construct application. Pursuant to Health and Safety Code Section 40709.5(e), the applicant shall specify the year in which the applicant obtained the Emission Reduction Credit, price paid per ton per pollutant, and the total cost per pollutant.

c. If the Emission Reduction Credits proposed for use are not owned by the applicant, a letter from the owner of the Emission Reduction Credit certificates stating that the Emission Reduction Credits will be available at least two weeks before the Authority to Construct is issued. Alternatively, an applicant may provide a copy of the contract to obtain Emission Reduction Credits that is signed by the Emission Reduction Credit provider and by the applicant and which names the District as a third party beneficiary. Pursuant to Health and Safety Code Section 40709.5(e), the applicant shall specify the year in which the applicant obtained the Emission Reduction Credit, the price paid per ton per pollutant, and the total cost per pollutant.

d. List proposed mitigating measures:

1) Air pollution control equipment proposed.

2) Process changes or operations utilized to reduce emissions.

3) Other.

e. Identify any air quality impacts from any precursor-secondary pollutant relationships.

6. Information Required - Health Risk Assessment.

The Health Risk Assessment shall be consistent with methodology approved by the California Air Pollution Control Officers Association Air Toxics “Hot Spots” Program Revised 1992 Risk Assessment Guidelines, prepared by the Toxics Committee of the California Air Pollution Control Officers Association, October, 1993, or most recent version, and shall address the following:

a. Unit risk factors used in determining lifetime cancer risk.

b. Population characterization (e.g., numbers, location, sensitive receptors).

c. Exposure assessment (e.g., working hours, family relocation).

d. Risk estimates for all parameters of concern, including multi-pathway analysis.

e. Analysis of potential health effects of non-carcinogenic air pollutants.

f. Map showing the receptor areas of concern drawn to scale with the sensitive receptors clearly marked. All applicants are encouraged to consult with the District staff as to an appropriate distance for health risk assessment.

g. Name, address, telephone number, and qualifications of company and/or person who performed health risk assessment.

h. Input and output computer files.

RULE 205. STANDARDS FOR GRANTING APPLICATIONS.

A. The Control Officer shall deny an Authority to Construct or Permit to Operate, except as provided in Rule 206 if the applicant does not show that every article,

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machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants, or the use of which may eliminate or 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 or without causing to be emitted air contaminants in violation of Sections 41700 or 41701, Health and Safety Code, or of these Rules and Regulations.

B. Before an Authority to Construct or a Permit to Operate is granted, the Control Officer may require the applicant to provide and maintain such facilities as are necessary for sampling and testing purposes in order to secure information that will disclose the nature, extent, quantity or degree of air contaminants discharged into the atmosphere from the article, machine, equipment or other contrivance described in the Permit to Operate. In the event of such a requirement, the Control Officer shall notify the applicant in writing of the required size, number and location of sampling holes; the size and location of the sampling platform; and the utilities for operating and sampling and testing equipment. The platform and access shall be constructed in accordance with the Federal Industry Safety Orders of the State of California.

RULE 205.C NEW SOURCE REVIEW

10/18/79

1. General

a. Definitions

1) "Air Quality Impact Analysis" means using an air quality simulation model, based on specified assumptions and data, to demonstrate the maximum ground level impact point of the pollutant. Any air quality simulation model must be approved by the Control Officer, after conferring with ARB.

2) "Best Available Control Technology (BACT)" is defined as:

a) For sources emitting 5 pounds/hour or more but less than 10 pounds/hour, of any pollutant, the most effective emissions control technique which takes into account energy, environmental and economic impacts and which the applicant demonstrates is achievable to the Control Officer.

b) For sources emitting 10 pounds/hour or more of any pollutant, the more stringent of the following:

(1) The most effective emissions control technique which has been achieved in practice for such category or class of source; or

(2) Any other emissions control technique found, after public hearing by the Control Officer or the Air Resources Board to be technologically feasible and cost effective for such class or category of sources or for a specific source; or

(3) The most effective emission limitation which is contained in the implementation plan of any State approved under the Clean Air Act for such class or category or source, unless the owner or operator of the proposed source demonstrates to the satisfaction of the Control Officer that such limitations are not achievable.

c) In no event shall the emission rate reflected by the control technique or limitation exceed the amount allowable under any other Rule of the District.

d) With respect to sources emitting 5 to 10 pounds/hour (sub-paragraph 1.a.2)a) hereof) and as to pollutants for which the area of the proposed new or modified source is not classified as non-attainment, BACT shall not be interpreted to include a requirement which will result in the closing or elimination of, or the inability to construct or modify, a lawful business.

3) "California Coastal Waters" means that area between the California coastline and a line starting at the California-Oregon border at the Pacific Ocean,

thence to	42.0°N	125.5°W
thence to	41.0°N	125.5°W
thence to	40.0°N	125.5°W
thence to	39.0°N	125.0°W
thence to	38.0°N	124.5°W
thence to	37.0°N	123.5°W
thence to	36.0°N	122.5°W
thence to	35.0°N	121.5°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.

4) "Major Modified Stationary Source" which would be subject to California Environmental Quality Act (CEQA), Air Resources Board (ARB) or the Environmental Protection Agency (EPA) review means a modification to a stationary source of air pollutants which will result in, or have the potential to result in, an increase of one hundred tons per year or more of any pollutant.

5) "Major Stationary Source" which would be subject to California Environmental Quality Act (CEQA), Air Resources Board (ARB) or the Environmental Protection Agency (EPA)

review means any stationary source of air pollutants which emits or has a potential to emit one hundred tons per year or more of any pollutant.

6) "Modification" means any physical change in, or any change in method of operation of, an existing stationary source, except:

   a) Routine maintenance or repair.

   b) An increase in the production rate if such increase does not exceed the operating design capacity of the source and such operation was not previously limited by enforceable permit condition(s).

   c) A change in ownership of a source.

   d) For use of an alternate fuel or raw material provided that such use is expressly authorized on the Permit.

7) "Pollutants" means nitrogen oxides (NO_X), non-methane hydrocarbons, carbon monoxide (CO), sulfur oxides (SO_X), particulates or any pollutant for which there is a federal ambient air quality standard

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8) "Stationary Source" means any structure, building, facility, equipment installation or operation (or aggregation thereof) which:

   a) (1) Is located on one or more bordering properties which are owned or operated by the same legal owner or operator;

      (2) Is not under the same ownership or entitlement to use, where the units are the subject of a contractual or other binding relationship between more than one party providing for the joint or concurrent construction or operations of such units.

   b) Items of pollutant-emitting equipment shall be considered the same stationary source, and items of non-pollutant emitting equipment shall be considered associated with pollutant emitting equipment only if:

(1) The operation of each item of equipment is dependent upon or affects the process of, the others; and

(2) The operation of all such items of equipment involves a common raw material or product.

c) Emissions from all such aggregated items of pollutant-emitting equipment and all such associated items of non-pollutant-emitting equipment of a stationary source shall be considered emissions of the same stationary source.

d) The emissions from all cargo carriers (excluding vehicles) while operating within the air basin, including marine cargo vessels while operating within the California Coastal Waters adjacent to the air basin, which load or unload at the source shall be considered as emissions from the stationary source.

b. The Control Officer shall deny application for an Authority to Construct for new stationary source or modification, or any portion thereof, unless:

---

1) The new source or modification, or applicable portion thereof, complies with the provisions of this Rule and all other applicable District Rules and Regulations; and

2) The applicant certifies, at the time of application, that all stationary sources in the State emitting 25 pounds per hour or 250 pounds per day, or more, and all sources in the District which are owned or operated by the applicant are in compliance, or are on approved schedule for compliance, with all applicable emission limitations & standards under the Clean Air Act (42 USC 7401 et seq.) all applicable emission limitations and standards are part of the State Implementation Plan approved the Environmental Protection Agency.

The Control Officer may request any necessary information from the applicant to make this determination.

c. Applications in the following categories shall be exempted from the requirement of this Rule provided that:

1) The Authority to Construct was granted prior to October 12, 1976, provided that any such source will be required to obtain a Permit to Operate in accordance with the provisions of the Rules which were in effect prior to October 12, 1976. Exemptions granted shall not apply to future modifications of such source; or

2) The stationary source was previously exempt from the permit provision of these Rules and Regulations and a Permit to Operate is required solely because of a change in Permit exemptions.

d. Emission review levels for carbon monoxide will be 100 pounds per hour or 1000 pounds per day, or more.

2. Application for Authority to Construct

a. The Control Officer shall deny an application for an Authority to Construct:

1) Any new or modified stationary source whose net emissic increase will be five (5) pounds per hour or more of any pollutant unless the application shows that the new or modified equipment will be constructed utilizing BACT.

2) Any new stationary source whose emissions will be ten (10) pounds per hour but less than 25 pounds per hour or 250 pounds per day, of any pollutant unless the applicant demonstrates by Air Quality Impact Analysis (AQIA) to the satisfaction of the Control Officer that the emissions will not cause a violation of, or interfrere with the attainment or maintenance of any national primary ambient air quality standard; or prevent reasonable progress towards the achievement or maintenance of any national secondary ambient air quality standard.

3) Any modified stationary source with a net emission increase of five (5) pounds per hour, but less than 25 pounds per hour or 250 pounds per day, when the total emission of the stationary source after modification will be fifteen (15) pounds per hour or more of any pollutant unless the application contains information that demonstrates by AQIA to the satisfaction of the Control Officer that the emissions will not cause a violation of, or interfere with the attainment or maintenance of any national primary ambient air quality standard; or prevent reasonable progress towards the achievement or maintenance of any national ambient air quality standard.

3. Exemptions from Air Quality Impact Analysis (AQIA)

An application which would otherwise require AQIA but which contains information that demonstrates, to the satisfaction of the Control Officer, concurrence with one of the following provision shall be exempt from the requirements of performing an Air Quality Impact Analysis:

a. Is exclusively for the construction or modification of an air pollution control device which will reduce emissions fro the existing stationary source, provided such control device does not generate any pollutants in excess of the limits specified in paragraphs 2.a.2) and 2.a.3).

b. The new or modified stationary source will be constructed using BACT; and will be a replacement, in whole or in part, for an existing stationary source within the District which has a valid Permit to Operate. Further, there will be no net increase in the emission of any pollutant, and no degradation of air quality anywhere within the District or contiguous districts except during a ninety (90) day start-up period when operation of both sources may be allowed. Written concurrence of the Air Resources Board will be obtained prior to the granting of a Permit to Operate here-

under for sources larger than twenty-five (25) pounds per hour or two hundred fifty (250) pounds per day after control. Concurrence shall be assumed if written answer is not received within sixty (60) days of transmittal.

c. Is exclusively for a modification to convert from use of gaseous fuels to fuel oil because of demonstrable shortage of gaseous fuels. For stationary sources constructed after October 11, 1976, the applicant must demonstrate that use of fuel oil would have been permitted without the requirement of AQIA at the time of construction. Modifications for the purpose of this paragraph shall include the addition or modification of facilities for storing, transferring and/or transporting such fuel oil at the secondary sources. The conditions shall be placed on the Permit to Operate requiring conversion back to gaseous fuel when it becomes available. The applicant must demonstrate that he made his best efforts to obtain sufficient emission offsets under this Rule, that such attempts were unsuccessful, and that he will continue to seek the necessary emission offsets until the Authority to Construct is issued.

d. Will be used exclusively for providing essential public services such as schools, hospitals, or police and fire fighting facilities.

e. Will result in a demonstrable air quality benefits within the applicable zone of the South Central Coast Air Basin. For sources larger than twenty-five (25) pounds per hour or two hundred fifty (250) pounds per day, after control, written concurrence of the ARB shall be obtained prior to the granting of an Authority to Construct. Concurrence shall be assumed if no written indication to the contrary is received within sixty (60) days of transmittal. In order to show that a proposed new stationary source or modification to an existing stationary source will cause demonstrable air quality benefits within the applicable zone, an applicant must provide emission reduction or offsets at existing sources.

f. Which is portable equipment used on a temporary basis (less than ninety (90) days per year, July 1 to June 30) within the District, and uses BACT. This shall not exempt the owner/operator from the requirements of obtaining a Permit to Operat

g. Which uses innovative operating or control equipment or processes which will likely result in a significantly lower emission rat from the stationary source than would have occurred with the use of previously-recognized BACT, and which can be expected to serve as a model for technology to be applied to similar stationary sources resulting in a demonstrable air quality benefit. This exemption shall apply only to pollutants which are controlled by the innovative operating or control equipment or process, provided the applicant demonstrates by AQIA that ny other pollutants emitted subject to paragraph 2 of this Rule, will not cause a violation of any national ambient air qualit standard. The Control Officer shall obtain written concurrence from the Executive Officer of the Air Resources Board prior to granting an exemption pursuant to this paragraph. The Control Officer shall assume concurrence if a written response is not received from the Executive Officer to the contrary within sixty (60) days of transmittal.

4. Calculation of Emissions

a. The maximum design capacity of a new or modified stationary source shall be used to determine the maximum hourly and quarterly emissions from the new source or modification unless the applicant, as a condition to receiving an Authority to Construct or Permit to Operate such new source or modification, agrees to limitations on the operations of the new or modified source, in which event the limitations shall be used to establish the emissions from the new or modified source.

b. The net emissions increase of any stationary source shall be the sum of all increases and decreases of a pollutant, caused by modifications, under Authority to Construct, during the

preceeding five years or since October 11, 1976, whichever period is shorter. Those reductions to the extent required to comply with federal, state or District Rules, emission limits or orders shall not be included as decreases under these Rules.

c. The emissions from an existing source to be used as a trade-off, shall be based upon:

1) Operation or emission limitations set forth in the source's Authority to Construct and/or Permit to Operate.

2) Operation and/or emission limitations agreed upon by the applicant and Control Officer at the time of issuance of the Authority to Construct and/or Permit to Operate.

3) When emission limitations and/or operating limitations as discussed in 4.c.1) and 2) are not available, maximum hourly emissions shall be based upon the maximum design capacity of the source and average quarterly emissions shall be based upon the actual operating conditions of the source, averaged over the three consecutive years immediately preceeding the date of application, or such period as may be applicable in cases where the existing source has not been in operation for three consecutive years. The Control Officer shall take into account such parameters as fuel use records, production records, raw material purchases, or other such available data, to determine actual operations.

a) In cases where the maximum design capacity of the source and the actual operating conditions of the source are available, the Control Officer shall use the actual operating conditions of the sources in his determinations.

4) If a violation of laws, Rules, Regulations, Permit conditions or orders of the District, the ARB or the EPA occurred during the period used to determine the operating conditions, an adjustment shall be made to determine the emissions the existing source would have caused without such violations.

Emission Trade-Offs

a. Net emission increases from new or modified stationary source:

1) Emitting less than 25 pounds per hour or 250 pounds per day of any pollutant which has been shown by AQIA to caus a violation of, or interference with, the attainment or maintenance of any national primary ambient air quality standard, shall be mitigated by emission trade-offs by reducing emissions from existing stationary or non-stationary sources; or

2) Emitting 25 pounds per hour or 250 pounds per day, or more, shall be mitigated by emission trade-offs by reducing emissions from existing stationary or non-stationary source

b. Emission reductions shall be sufficient to offset any net emissions increase and shall take effect at the time, or before initial operation, of the new source, or within ninety (90) days after initial operation of the modification.

1) Except as provided in 5.b.4), sources used as trade-offs must be located within the District and either:

a) Upwind, as to the prevailing winds, or the new or modified source; or

b) Within a fifteen (15) mile radius of the new or modified source.

2) The maximum hourly emissions of a new or modified source as calculated in 4.a. shall be offset by the maximum hourly emissions of an existing source, based upon either the existing sources' maximum design capacity or maximum operating capacity as determined in 4.c.1) and 2).

3) The maximum quarterly (January through March, April through June, July through September, October through December) emissions or new or modified source shall be offset at a ratio of 1.2:1 by the average quarterly emissions from an existing source, as determined in 4.c.3).

4) Emission offsets located outside of the area described in 5.b.1) must be demonstrated to the satisfaction of the Control Officer by AQIA, that the emissions of the new or

modified source will not cause a violation of, or interfere with the attainment or maintenance of any national primary ambient air quality standard.

5) If an applicant certifies that the proposed new or modified source is a replacement for a source which was shut down or curtailed after July 2, 1979, emissions reductions associated with such shutdown or curtailment may be used as offsets for the proposed source, subject to other provisions of this Section.

Sources which were shut down or curtailed prior to July 2, 1979 may be used to offset emissions increases for replacements for such source, subject to the other provisions of this Section provided:

a) The shutdown or curtailment was made in good faith pursuant to an established plan approved by the Control Officer for replacement and emission control, and in reliance on air pollution laws, rules and regulations applicable at the time; and

b) The applicant demonstrates to the satisfaction of the Control Officer that there was good cause (which may include business or economic conditions) for delay in construction of the replacement facilities.

6) Notwithstanding any other provision of this Section, any emissions reductions not otherwise authorized by this Rule may be used as offsets of emissions increases from the proposed source provided the applicant demonstrates that such reductions will result in a net air quality benefit in the area affected by the emissions from the new or modified source, provided the written concurrence of the Air Resources Board is obtained.

7) Emissions reductions resulting from measures required by adopted District, state, or federal laws, rules or regulations (to the extent necessary to comply therewith) shall not be allowed as emissions offsets unless a complete application incorporating such offsets was filed

with the District prior to the date of the adoption of the laws, rules or regulations.

9) In order to verify that emission sources used as trade-offs will be maintained throughout the operation of the new or modified source:
   a) Permitted sources used as trade-offs will have their Permit to Operate revised or cancelled as per the requirements and needs of the applicant.
   b) Non-permitted sources used as emissions trade-offs will require a written contract between the applicant and the non-permitted source which shall be agreeable to and enforceable by the Control Officer.

10) Emissions reductions of one precursor may be used to offset emissions increases of another precursor of the same secondary pollutant provided the applicant demonstrates to the satisfaction of the Control Officer that the net emissions increase of the latter precursor will not cause a new violation, of any national ambient air quality standard at the point of maximum ground level impact. The ratio of emission reductions between precursor pollutants of the same secondary pollutant shall be determined by the Control Officer based on existing air quality data and subject to the approval of the Air Resources Board.

6. Conditional Requirements for Authority to Construct

The Control Officer shall, as a condition for the issuance of Authority To Construct a new stationary source or modification and with the prior written consent of the owner or operator of any source which provides offsets:

a. Require that the new source or modification and any sources which provide offsets be operated in the manner assumed in making the analysis. The Permit shall, if applicable, include an emissions limitation which corresponds with the application of Best Available Control Technology.

b. Modify, or require modification of, the Permit to Operate for any source used to provide offsets to insure that emissions reductions at that source which provide offsets will be enforceable and shall continue for the reasonably expected useful life of the proposed source. If offsets are obtained from a source for which there is no Permit to Operate, a written contract shall be required between the applicant and the owner or operator of such source which, by its terms, shall be enforceable by the Control Officer to insure that such reductions will continue for the reasonable expected useful life of the proposed source.

c. Permit any other reasonably enforceable methods, other than those described in sub-section b. which the Control Officer is satisfied, will assure that all required offsets are achieved

Power Plants

This section shall apply to all power plants proposed to be constructed or modified in the District and for which a Notice of Intention (NOI) or Application for Certification (AFC) has been accepted by the California Energy Commission. The Control Officer pursuant to Section 25538 of the Public Resources Code, may apply for reimbursement of all costs, including lost fees, incurred in order to comply with the provisions of this Section.

a. Within fourteen (14) days of receipt of an NOI, the Control Officer shall notify the ARB and the Commission of the District's intent to participate in the NOI proceeding. If the District chooses to participate in the NOI proceeding, the Control Officer shall prepare and submit a report to the ARB and the Commission prior to the conclusion of the nonadjudicatory hearings specified in Section 25509.5 of the Public Resources Code. That report shall include, at a minimum:

1) A preliminary specific definition of BACT for the proposed facility;

2) A preliminary discussion of whether there is substantial likelihood that the requirements of this Rule and all other District Regulations can be satisfied by the proposed facility;

3) A preliminary list of conditions which the proposed facility must meet in order to comply with this Rule or any other applicable District Regulation.

The preliminary determinations contained in the report shall be as specific as possible within the constraints of the information contained in the NOI.

b. Upon receipt of an Application for Certification (AFC) for a power plant, the Control Officer shall conduct a Determination of Compliance review. This Determination shall consist of a review identical to that which would be performed if an application for an Authority to Construct had been received for the power plant. If the information contained in the AFC does not meet the requirements of Rule 201.C, the Control Officer shall, within 20 calendar days of receipt of the AFC, so inform the Commission, and the AFC shall be considered incomplete and returned to the applicant for resubmittal.

c. The Control Officer shall consider the AFC to be equivalent to an application for a Permit to Construct during the Determination of Compliance review, and shall apply all provisions of this Rule which apply to applications for an Authority to Construct.

d. The Control Officer may request from the applicant any information necessary for the completion of the Determination of Compliance review. If the Control Officer is unable to obtain the information, the Control Officer may petition the presiding Commissioner for an order directing the applicant to supply such information.

Within 180 days of accepting an AFC as complete, the Control Officer shall make a preliminary decision on:

1) Whether the proposed power plant meets the requirements of this Rule and all other applicable District regulations; and

2) In the event of compliance, what permit conditions will be required including the specific BACT requirements and a description of required mitigation measures.

f. The preliminary written decision made under paragraph 7.e. shall be treated as a preliminary decision under Section 8 of this Rule, and shall be finalized by the Control Officer only after being subject to the public notice and comment requirements of Section 8. The Control Officer shall not issue a Determination of Compliance unless all requirements of this Rule are met.

g. Within 240 days of the filing date, the Control Officer shall issue and submit to the Commission a Determination of Compliance or, if such a determination cannot be issued, shall so inform the Commission. A Determination of Compliance shall confer the same rights and privileges as an Authority to Construct only when and if the Commission approves the AFC, and the Commission certificate includes all conditions of the Determination of Compliance.

h. Any applicant receiving a certificate from the Commission pursuant to this Section and in compliance with all conditions of the certificate shall be issued a Permit to Operate by the Control Officer.

Analysis, Notice and Reporting

a. Before granting or denying an application for any new or modified stationary source subject to an air quality impact analysis or requiring emission trade-offs, the Control Officer shall:

1) Analyze the effect of the stationary source on air quality. Such analysis shall be based on the application of existing federal, state and local control strategies. Such analysis shall be completed in 30 working days after receipt of a complete application.

2) Following completion of the analysis and, before granting or denying approval, the Control Officer shall:

a) Make available for public inspection at his office, except as limited by controls on release of confidential information submitted by the applicant, his analysis of the effect of the source on air quality and the preliminary decision to grant or deny the Authority to Construct or a Permit to Operate.

b) Publish a notice once by advertisement in at least one newspaper of general circulation in the District, stating where the public may inspect the information required in this subdivision. The notice shall provide 30 days beginning on the date of publication, for the public to submit comments on the application.

c) Notify, in writing, at the time of public notice, the applicant, EPA, ARB, adjoining air pollution control districts and other air pollution control districts in the air basin of his preliminary decision to grant or deny the Authority to Construct or Permit to Operate. ARB and EPA will be provided an analysis support package for the determination made when net emissions increases exceed 25 pounds per hour or 250 pounds per day.

d) Consider all comments submitted. If, within the 30-day notice period the Control Officer receives a written request from either EPA or ARB to defer his decision pending the requesting agency's review of the application, he shall defer his decision for a period of 30 days from the date of such request.

b. If the determination is made to grant an exemption for demonstrable air quality benefits (Section C.3.e)) or emissions trade-offs (Section C.5)), the Control Officer shall follow the public notice requirements outlined in paragraph a.2.b) of this Section.

c. The Control Officer shall notify, in writing, the EPA and ARB, within 15 days of the granting of an Authority to Construct based on an exemption from air quality impact analysis for:

1) Replacement of an existing source (Section C.3.b)).
2) Require fuel oil conversion (Section C.3.c)).
3) Essential public services (Section C.3.d)).
4) Innovative control equipment or processes (Section C.3.g)).

9. Issuance of Permit to Operate

a. The Control Officer shall grant a Permit to Operate if the applicant demonstrates to his satisfaction that:

1) The new or modified stationary source is operated without emitting air contaminants in violation of any applicable state or federal emission limitation on these Rules and Regulations; and

2) The emission or any subject pollutant from the new or modified stationary source is less than or equal to the emission amount used by the Control Officer in granting an Authority to Construct.

3) The offsets required as a condition of the Authority to Construct will commence at the time or prior to initial operations of the new source or modification, and that the offsets will be maintained throughout the operation of the new or modified source. In the case of a new or modified source which will be, in whole or in part, a replacement for an existing source on the same property, the Control Officer may allow a maximum of ninety (90) days as a start-up period for simultaneous operation of the existing source and the new source or replacement; and

4) All conditions specified in the Authority to Construct have been or will likely be complied with by any dates specified.

b. When an application for Permit to Operate is received, the Control Officer shall grant the Permit to Operate if the applicant demonstrates that the stationary source, as it exists, would have been granted an Authority to Construct under the provisions of this Rule.

10. Implementation Plans

The Control Officer shall issue an Authority to Construct for a major new stationary source or major modification to a stationary source, as defined in Section 1.a. which is subject to this Rule only if all District Regulations contained in the State Implementation Plan approved by the EPA are being carried out in accordance with that Plan.

11. State Ambient Air Quality Standards

All references in this Rule to national ambient air quality standards shall be interpreted to include state ambient air quality standards. While state standards are mentioned, they are not meant to be part of the State Implementation Plan.

12. By December 31, 1979, the Control Officer shall establish an emissions banking system for the ownership and transfer of excess emission reductions.

RULE 206. CONDITIONAL APPROVAL OF AUTHORITY TO CONSTRUCT OR PERMIT TO OPERATE. (Adopted 10/18/1971, revised 5/1/1972, readopted 10/23/1978, revised 10/15/1991)

The Control Officer may issue an Authority to Construct or Permit to Operate to any new, modified, or reevaluated source for which a permit is required, subject to specified written conditions. Such conditions are for the purpose of ensuring that construction and operation of the source complies with all applicable local, state, and federal air quality laws, rules, and regulations. This includes, but is not limited to, Section 44382 of the Health and Safety Code. Commencing construction or operation under such an Authority to Construct or Permit to Operate shall be deemed acceptance of all the specified conditions. The Control Officer shall issue a new Permit to Operate with revised conditions upon receipt of an application, if the applicant demonstrates that the source can operate in compliance with all applicable local, state and federal air quality laws, rules and regulations. Failure to comply with any condition specified pursuant to the provisions of this rule shall be a violation of this rule as well as of the applicable section of the Health and Safety Code.

Santa Barbara
11/12/92

Rule 212. EMISSION STATEMENTS

A. APPLICABILITY

This rule applies to all Stationary Sources with permitted emissions, in the aggregate, of 10 (ten) tons per year or more of oxides of nitrogen (NOx) and reactive organic compounds (ROC).

B. EXEMPTIONS

Reserved for future use.

C. REQUIREMENTS

Each year, the owner or operator of any Stationary Source subject to this rule shall provide the District with a written statement showing the actual emissions of NOx and ROC from all processes performed at that source for the preceding calendar year.

The owner or operator of any stationary source subject to this rule shall comply with the provisions of this rule by satisfying the following requirements:

1. By March 1 of each year, the owner or operator shall return the Annual Emission Inventory questionnaire to the District. This questionnaire shall be accompanied by a statement, signed by a responsible official of that stationary source, to the effect that the information presented in the questionnaire is accurate and complete to the best knowledge of the individual certifying the statement.

2. Each year, the owner or operator shall return the District's Annual Emission Fee invoice. This invoice shall be accompanied by a statement, signed by a responsible official of that stationary source, to the effect that the calculations of the quantities of emissions of air pollutants from that Stationary Source presented in the invoice are accurate and complete to the best knowledge of the individual certifying the statement.

D. COMPLIANCE SCHEDULE

The first statement shall be submitted to the District by July 1, 1993 and will declare calendar year 1992 emissions.

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Regulation III
Prohibitions

RULE 301. CIRCUMVENTION.

A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, 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 Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of Rule 303 of these Rules and Regulations.

~~RULE 302. VISIBLE EMISSIONS.~~

~~A. Exceptions.~~

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

~~1. Smoke from fires set by or permitted by any public officer if such a 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:~~

~~a. For the purpose of the prevention of a fire hazard which cannot be abated by any other reasonable means, or~~

~~b. The instruction of public employees in the methods of fighting fire.~~

~~2. Smoke from fires set pursuant to permit on property used for industrial purposes for the purpose of~~

~~RULE 301. CIRCUMVENTION.~~

~~A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, 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 Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of Rule 303 of these Rules and Regulations.~~

RULE 302. VISIBLE EMISSIONS.

A. Exceptions.

The provisions of this Rule do not apply to:

1. Smoke from fires set by or permitted by any public officer if such a 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:

a. For the purpose of the prevention of a fire hazard which cannot be abated by any other reasonable means, or

b. The instruction of public employees in the methods of fighting fire.

2. Smoke from fires set pursuant to permit on property used for industrial purposes for the purpose of

instruction of employees in methods of fighting fire.

3. Agricultural operations ~~in~~ necessary for the growing of crops, or raising of fowls or animals.

4. Orchard and citrus heaters meeting the requirements provided for by Section 39298.7 of the Health and Safety Code or any amendments and successors thereto.

5. The use of other equipment in agricultural operations ~~in~~ necessary for the growing of crops, or raising of fowls or animals.

6. Smoke from fires set pursuant to Rule 312B pertaining to backyard burning in the Northern Zone.

7. In the Northern Zone, smoke from burning for right of way clearing pursuant to Rule 312C.

B. A person shall not discharge into the atmosphere from any single source of emission any air contaminants 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 as 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 B.1. of this Rule.

Observer. An observer may be human or a certified, calibrated, in-stack opacity monitoring system.

~~RULE 303. NUISANCE.~~

~~A person shall not discharge from any source whatsoever such quantities of air contaminants or other material in violation of Section 41700 of the Health and Safety Code which cause injury, detriment, nuisance or annoyance to any~~

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~~considerable number of persons or to the public or which~~ endanger the comfort, ~~repose~~, health or ~~safety~~ or any such persons or the ~~public~~ or which cause or ~~have~~ a natural tendency ~~to cause injury or damage to business or property.~~

RULE 304. PARTICULATE MATTER - NORTHERN ZONE.

A person shall not discharge into the atmosphere from any source particulate matter in excess of 0.3 grain per cubic foot of gas at standard conditions.

~~RULE 305. PARTICULATE MATTER CONCENTRATION - SOUTHERN ZONE.~~

A person shall not discharge into the atmosphere from any source, particulate matter in excess of the concentration shown in Table 305(a).

Where the volume discharged falls between figures listed in the table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

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.

RULE 306. DUST AND FUMES - NORTHERN ZONE.

A. A person shall not discharge, in any one hour, from any source, dust or fumes in total quantities in excess of the amount shown in Table 306(a).

~~considerable number of persons or to the public or which~~ endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

RULE 304. PARTICULATE MATTER - NORTHERN ZONE.

A person shall not discharge into the atmosphere from any source particulate matter in excess of 0.3 grain per cubic ~~foot of gas at standard conditions.~~

RULE 305. PARTICULATE MATTER CONCENTRATION - SOUTHERN ZONE.

A person shall not discharge into the atmosphere from any source, particulate matter in excess of the concentration shown in Table 305(a).

Where the volume discharged falls between figures listed in the table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

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.

~~RULE 306. DUST AND FUMES - NORTHERN ZONE.~~

A. A person shall not discharge, in any one hour, from any source, dust or fumes in total quantities in excess of ~~the amount shown in Table 306(a).~~

Table 305(a)

PARTICULATE MATTER CONCENTRATION

SOUTHERN ZONE

VOLUME DISCHARGED-CUBIC FEET PER MINUTE CALCULATED AS DRY GAS AT STANDARD CONDITIONS	MAXIMUM CONCENTRATION OF PARTICULATE MATTER ALLOWED IN DISCHARGED GAS - GRAINS PER CUBIC FOOT OF DRY GAS AT STANDARD CONDITIONS	VOLUME DISCHARGED-CUBIC FEET PER MINUTE CALCULATED AS DRY GAS AT STANDARD CONDITIONS	MAXIMUM CONCENTRATION OF PARTICULATE MATTER ALLOWED IN DISCHARGED GAS - GRAINS PER CUBIC FOOT OF DRY GAS AT STANDARD CONDITIONS
1000 or less	0.200	20000	0.0635
1200	.187	30000	.0544
1400	.176	40000	.0487
1600	.167	50000	.0447
1800	.160	60000	.0417
2000	.153	70000	.0393
2500	.141	80000	.0374
3000	.131	100000	.0343
3500	.124	200000	.0263
4000	.118	400000	.0202
5000	.108	600000	.0173
6000	.101	800000	.0155
7000	.0949	1000000	.0142
8000	.0902	1500000	.0122
10000	.0828	2000000	.0109
15000	.0709	2500000 or more	.0100

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~~considerable number of persons or to the public or which~~ endanger the comfort, repose, health or safety or any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

RULE 304. PARTICULATE MATTER - NORTHERN ZONE.

A person shall not discharge into the atmosphere from any source particulate matter in excess of 0.3 grain per cubic foot of gas at standard conditions.

RULE 305. PARTICULATE MATTER CONCENTRATION - SOUTHERN ZONE.

A person shall not discharge into the atmosphere from any source, particulate matter in excess of the concentration shown in Table 305(a).

Where the volume discharged falls between figures listed in the table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

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.~~

RULE 306. DUST AND FUMES - NORTHERN ZONE.

A. A person shall not discharge, in any one hour, from any source, dust or fumes in total quantities in excess of the amount shown in Table 306(a).

Table 306(a)

PROCESS WEIGHT RATE

NORTHERN ZONE

Process Wt/hr.(lbs.)	Maximum Weight Disch/hr.(lbs.)	Process Wt/hr.(lbs.)	Maximum Weight Disch/hr.(lbs.)
50	.24	3400	5.44
100	.46	3500	5.52
150	.66	3600	5.61
200	.85	3700	5.69
300	1.20	3900	5.85
350	1.35	4000	5.93
400	.50	4100	6.01
450	1.63	4200	6.08
500	1.77	4300	6.15
550	1.89	4400	6.22
600	2.01	4500	6.30
650	2.12	4600	6.37
700	2.24	4700	6.45
750	2.34	4800	6.52
800	2.43	4900	6.60
850	2.53	5000	6.67
900	2.62	5500	7.03
950	2.72	6000	7.37
1000	2.80	6500	7.71
1100	2.97	7000	8.05
1200	3.12	7500	8.39
1300	3.26	8000	8.71
1400	3.40	8500	9.03
1500	3.54	9000	9.36
1600	3.66	9500	9.67
1700	3.79	10000	10.00
1800	3.91	11000	10.63
1900	4.03	12000	11.28
2000	4.14	13000	11.89
2100	4.24	14000	12.50
2200	4.34	15000	13.13
2300	4.44	16000	13.74
2400	4.55	17000	14.36
2500	4.64	18000	14.97
2600	4.74	19000	15.58
2700	4.84	20000	16.19
2800	4.92	30000	22.22
2900	5.02	40000	28.30
3000	5.10	50000	34.30
3100	5.18	60000	40.00
3200	5.27	or	
3300	5.36	more	

B. To use this table, determine the "Process Weight Per Hour". Then find this figure on the table, opposite which is the maximum number of pounds of contaminants which may be discharged into the atmosphere in any one hour. Where the Process Weight Per Hour falls between figures in the lefthand column, the exact weight of permitted discharge may be interpolated.

~~RULE 307. PARTICULATE MATTER EMISSION WEIGHT RATE - SOUTHERN~~ ZONE.

A. "Solid Particulate Matter" includes ~~any~~ material which would become solid particulate matter if cooled to standard conditions.

B. A person ~~shall~~ not discharge into the atmosphere from any source, solid particulate matter in excess of the rate ~~shown in Table 307(a).~~

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~~B. To use this table, determine the "Process Weight Per Hour". Then find this figure on the table, opposite which is the maximum number of pounds of contaminants which may be discharged into the atmosphere in any one hour. Where the Process Weight Per Hour falls between figures in the lefthand column, the exact weight of permitted discharge may be interpolated.~~

RULE 307. PARTICULATE MATTER EMISSION WEIGHT RATE - SOUTHERN ZONE.

A. "Solid Particulate Matter" includes any material which would become solid particulate matter if cooled to standard conditions.

B. A person shall not discharge into the atmosphere from any source, solid particulate matter in excess of the rate shown in Table 307(a).

Table 307

PARTICULATE MATTER EMISSION WEIGHT RATE
SOUTHERN ZONE

PROCESS WEIGHT PER HOUR - - - POUNDS PER HOUR	MAXIMUM DISCHARGE RATE ALLOWED FOR SOLID PARTICULATE MATTER (AGGREGATE DISCHARGED FROM ALL POINTS OF PROCESS)- POUNDS PER HOUR	PROCESS WEIGHT PER HOUR - - - POUNDS PER HOUR	MAXIMUM DISCHARGE RATE ALLOWED FOR SOLID PARTICULATE MATTER (AGGREGATE DISCHARGED FROM ALL POINTS OF PROCESS)- POUNDS PER HOUR
250 or less	1.00	12000	10.4
300	1.12	14000	10.8
350	1.23	16000	11.2
400	1.34	18000	11.5
450	1.44	20000	11.8
500	1.54	25000	12.4
600	1.73	30000	13.0
700	1.90	35000	13.5
800	2.07	40000	13.9
900	2.22	45000	14.3
1000	2.38	50000	14.7
1200	2.66	60000	15.3
1400	2.93	70000	15.9
1600	3.19	80000	16.4
1800	3.43	90000	16.9
2000	3.66	100000	17.3
2500	4.21	120000	18.1
3000	4.72	140000	18.8
3500	5.19	160000	19.4
4000	5.64	180000	19.9
4500	6.07	200000	20.4
5000	6.49	250000	21.6
5500	6.89	300000	22.5
6000	7.27	350000	23.4
6500	7.64	400000	24.1
7000	8.00	450000	24.8
7500	8.36	500000	25.4
8000	8.70	600000	26.6
8500	9.04	700000	27.6
9000	9.36	800000	28.4
9500	9.68	900000	29.3
10000	10.00	1000000 or more	30.0

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RULE 308. INCINERATOR BURNING.

A person shall not burn any combustible refuse in any incinerator within this District except in a multiple-chamber incinerator or in equipment found by the Control Officer in advance of such use to be equally effective for the purpose of air pollution control as an approved multiple-chamber incinerator.

~~RULE 309. SPECIFIC CONTAMINANTS.~~

A. General.

A person shall not discharge into the atmosphere from any single source of emission any one or more of the following contaminants, in any state or combination thereof, exceeding in concentration at the point of discharge:

1. Sulfur compounds calculated as sulfur dioxide (SO_2): 0.2 percent, by volume.

2. Combustion Contaminants:

a. Northern Zone: 0.3 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions. In measuring the combustion contaminants from incinerators used to dispose of combustible refuse by burning, the carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of carbon dioxide (CO_2).

b. Southern Zone: 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at ~~standard conditions (except as specified in section D below).~~

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~~RULE 308. INCINERATOR BURNING.~~

~~A person shall not burn any combustible refuse in any incinerator within this District except in a multiple-chamber incinerator or in equipment found by the Control Officer in advance of such use to be equally effective for the purpose of air pollution control as an approved multiple-chamber incinerator.~~

RULE 309. SPECIFIC CONTAMINANTS.

A. General.

A person shall not discharge into the atmosphere from any single source of emission any one or more of the following contaminants, in any state or combination thereof, exceeding in concentration at the point of discharge:

1. Sulfur compounds calculated as sulfur dioxide (SO_2): 0.2 percent, by volume.

2. Combustion Contaminants:

a. Northern Zone: 0.3 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions. In measuring the combustion contaminants from incinerators used to dispose of combustible refuse by burning, the carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of carbon dioxide (CO_2).

b. Southern Zone: 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions (except as specified in section D below).

B. Sulfur Recovery Units.

1. A person shall not discharge into the atmosphere from any sulfur recovery unit producing elemental sulfur, effluent process gas containing more than:

a. 500 parts per million by volume of sulfur compounds calculated as sulfur dioxide.

b. 10 parts per million by volume of hydrogen sulfide.

2. Any sulfur recovery unit having an effluent process gas discharge containing less than 10 pounds per hour of sulfur compounds calculated as sulfur dioxide may dilute to meet the provision of section 1a. above.

C. Sulfuric Acid Units.

A person shall not discharge into the atmosphere from any sulfuric acid unit, effluent process gas containing more than:

1. 500 parts per million by volume of sulfur compounds calculated as sulfur dioxide.

2. 200 pounds per hour of sulfur compounds calculated as sulfur dioxide.

D. Incinerator Burning - Southern Zone.

1. A person shall not discharge into the atmosphere from any incinerator or other equipment used to dispose of combustible refuse by burning:

a. Particulate matter in excess of 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions for equipment having

design burning rates greater than 100 pounds per hour, except as provided in subsection b.

b. Particulate matter in excess of 0.3 grains per cubic foot of gas calculated to 12 percent carbon monoxide (CO_2) at standard conditions for equipment having design burning rates of 100 pounds per hour or less.

c. Any carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculations to 12 percent of carbon dioxide (CO_2) in sections a. and b. above.

E. Fuel Burning Equipment.

1. A "Fuel Burning Equipment" unit shall be composed of the minimum number of boilers, furnaces, jet engines or other fuel burning equipment, whose simultaneous operations are required for the production of useful heat or power.

2. Fuel burning equipment serving primarily as air pollution control equipment by using a combustion process to destroy air contaminants shall be exempt from the provisions of this Rule, if it is considered best available control technology by the Control Officer.

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

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

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

c. 10 pounds per hour of combustion contaminants derived from the fuel.

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

F. Fuel Burning Equipment - Oxides of Nitrogen - Southern Zone.

A person shall not discharge into the atmosphere from any non-mobile fuel burning article, machine, equipment or other contrivance, having a maximum heat input rate of more than 1775 million British Thermal Units (BTU) per hour (gross), flue gas having a concentration of nitrogen oxides, calculated as nitrogen dioxide (NO_2) at 3 percent oxygen, in excess of 125 parts per million (ppm) when fired by a gaseous fuel and 225 ppm when fired by a liquid or solid fuel.

G. Carbon Monoxide - Southern Zone.

1. The provisions of this Rule shall not apply to emissions from internal combustion engines.

2. A person shall not discharge into the atmosphere carbon monoxide (CO) in concentrations exceeding 2000 ppm by volume measured on a dry basis.

~~RULE 310. ODOROUS ORGANIC SULFIDES.~~

~~A person shall not discharge into the atmosphere from any single source or any number of sources within one contiguous property, hydrogen sulfide or organic sulfides or a combination thereof which results in ground level concentra-~~

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~~tions at any point at or beyond the property line in excess~~ of amounts ~~shown~~ in the following table, expressed ~~in~~ ppm, by volume, as hydrogen ~~sulfide~~.

Concentration	Averaging Time
.06 ppm	3 minutes
~~.03 ppm~~	~~1 hour~~

RULE 311. SULFUR CONTENT OF FUELS.

A. Exception: This Rule shall not apply:

1. To the burning of sulfur, hydrogen sulfide, acid sludge or other sulfur compounds in the manufacturing of sulfur or sulfur compounds.

2. To the incinerating or waste gases, provided the gross heating value of such gases is less than 300 British Thermal Units per cubic foot at "Standard Conditions" and provided the fuel used to incinerate such waste gases does not contain sulfur compounds in excess of the amount specified in this Rule.

3. To the use of solid fuels in any metallurgical process.

4. To the use of fuels where the gaseous products of combustion are used as raw materials for other processes.

5. To the use of liquid or solid fuel to propel or test any vehicle, aircraft, missile, locomotive, boat or ship.

6. Where sulfur compounds are removed from combustion products, or a mixture of fuels is used, to the extent that the emission of sulfur compounds in the atmosphere is no greater than that which would be emitted by using a liquid

or solid fuel complying with this Rule.

7. To the use of liquid fuel whenever the supply of liquid fuel with a sulfur content of 0.5% or less is not physically available to the user due to accident, strike, act of war, sabotage, act of God, failure of the supplier or by reason of any Federal or State of California rule or regulation prohibiting the purchase or use thereof, providing that an application for a variance to burn non-complying fuel is filed within three days with the Clerk of the Hearing Board.

B. No person shall burn within any portion of the Southern Zone any gaseous fuel containing sulfur compounds in excess of 15 grains per 100 cubic feet (calculated as hydrogen sulfide at standard conditions) or any liquid or solid fuel having a sulfur content in excess of 0.5 percent by weight.

C. No person shall burn within any portion of the Northern Zone any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet (calculated as hydrogen sulfide at standard conditions) or any liquid or solid fuel having a sulfur content in excess of 0.5 percent by weight.

1. Exception

a. Section C shall not apply to the burning of liquid fuel with a sulfur content not exceeding one percent (1%) by weight by any stationary source in operation prior to March 1, 1978, providing that the burning of such fuel

does not or will not interfere with or prevent the attainment or maintenance of any applicable state or national air quality standard in the South Central Coast Basin or adjacent basins.

b. No stationary source elegible to burn fuel under this exception shall do so until it has demonstrated to the satisfaction of the Control Officer, through the submission of adequate monitoring, modeling or other such data, that burning such fuel will meet the requirements of section a. above.

c. Any authority granted under this subsection shall be conditional and shall be of no force or effect if the Control Officer finds, after granting written permission, that operation on such fuel violates the requirements of section a. above and notifies the operator(s) of the source of such findings. The operator(s) of the source shall terminate the use of liquid fuel having a sulfur content in excess of 0.5% by weight within 30 days after being so notified. The operator(s) of a source whose Permit to Operate has been terminated as provided in this paragraph may appeal such termination. The appeal shall be made and the hearing thereon shall be conducted substantially in accordance with the District's Regulations relating to appeals from the denial of a Permit to Operate.

d. Each stationary source burning such fuel during any calendar month shall, within the first 10 days of the next calendar month, provide a written record to the Control Officer, in a format specified by the Control Officer,

the total quantity of such fuel burned, the sulfur content thereof, air quality monitoring information in the California Air Resources Board monthly data format, and such other information as may be required by the Control Officer to enforce the provision of this section.

~~RULE 312. OPEN FIRES.~~

A. General:

A person shall not burn any combustible refuse in any open outdoor fire within the District boundaries except as otherwise provided in these Rules and Regulations.

B. Residential Dry Vegetation Burning:

The burning of leaves, weeds, grass clippings, shrubbery and tree prunings (all adequately dried) by occupants of one and two-family dwellings only, within the Northern Zone except in the incorporated cities of Santa Maria and Lompoc, shall be permitted on the premises in open outdoor fires on Permissive Burn Days in the months of February, May, August and November; subject to strict control and issuance of a permit therefor by the public fire protection agency having jurisdiction and subject to applicable Rules and Regulations of Chapter 15 of the Santa Barbara County Code (Fire Protection).

C. Right of Way Burning - Northern Zone.

1. Representatives of the County of Santa Barbara and of public utilities concerned with Right-of-Ways may, in the Northern Zone, burn, in the open, dry combustible vegetation cleared from right of ways provided that:

a. Such representatives certify, in writing to ~~the Director of Air Pollution Control, that such burning is~~

~~the total quantity of such fuel burned, the sulfur content thereof, air quality monitoring information in the California Air Resources Board monthly data format, and such other information as may be required by the Control Officer to enforce the provision of this section.~~

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a. Such representatives certify, in writing to ~~the Director of Air Pollution Control, that such burning is~~

~~requirements of this Rule and other applicable laws, rules and regulations.~~

D. Fire Hazard - Reduction in High Fire Hazard Areas.

Outdoor burning will be permitted in High Fire Hazard Areas designated pursuant to Chapter 15 of the Santa Barbara County Code provided that:

1. Permits for all burning shall first be obtained from the Fire Protection Agency having jurisdiction and from the Control Officer.

2. All burning shall be conducted in accordance with all applicable provisions of the Santa Barbara County Code and in accordance with all other applicable State and local laws, rules and regulations.

3. No burning shall be permitted during any fire hazard seasons as the same are determined and declared by the County of Santa Barbara Fire Chief.

4. No burning shall be permitted on days when agricultural burning is prohibited by the State Air Resources Board.

5. No burning shall be permitted on days when the Control Officer determines that it is likely that applicable federal primary or State ambient air quality standards are likely to be exceeded in the area concerned, if such burning were to be permitted.

6. No burning shall be permitted on Sundays.

7. Only cuttings from trees, vines or bushes shall be burned on the subject property to eliminate fire hazards,

and then only when adequately dried to reduce the smoke level. No other materials or substances may be so burned.

8. Both the Fire Protection Agency and the Control Officer may develop reasonable regulations and impose them as conditions of permits issued hereunder for such burning in order to ensure safety, mitigate air pollution and relieve public agencies from liability.

9. This Rule shall not take effect and the Control Officer shall not approve permits for burning hereunder unless and until this Rule has been approved by the California Air Resources Board.

~~RULE 313. FIRES SET UNDER PUBLIC AUTHORITY.~~

~~A. Nothing in these Regulations shall be construed as limiting the authority granted under other provisions of law:~~

~~1. To any public officer to set or permit a fire when such fire is, in his opinion, necessary for:~~

~~a. The purpose of the preservation of life or prevention of a fire hazard which cannot be abated by any other reasonable means; or~~

~~b. The instruction of public employees in the methods of fighting fire; or~~

~~c. Instruction of employees in methods of fighting fire, pursuant to permit, on property used for industrial purposes.~~

~~2. To set or cause to be set backfires necessary to save life or valuable property pursuant to Section 4426 of the Public Resources Code.~~

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~~and then only when adequately dried to reduce the smoke level.~~ No other materials or substances may be so burned.

8. Both the Fire Protection Agency and the Control Officer may develop reasonable regulations and impose them as conditions of permits issued hereunder for such burning in order to ensure safety, mitigate air pollution and relieve public agencies from liability.

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1. To any public officer to set or permit a fire when such fire is, in his opinion, necessary for:

a. The purpose of the preservation of life or prevention of a fire hazard which cannot be abated by any other reasonable means; or

b. The instruction of public employees in the methods of fighting fire; or

c. Instruction of employees in methods of fighting fire, pursuant to permit, on property used for industrial purposes.

2. To set or cause to be set backfires necessary to save life or valuable property pursuant to Section 4426 of the Public Resources Code.

3. To abate fires pursuant to Chapter 2 (commencing with Section 13055) of Part 1 of Division 12 of the Health and Safety Code.

B. The exception of Section A.1 hereof shall not be effective on any calendar day on which the Control Officer determines that it is a "no-burn" day.

~~RULE 314. REDUCTION OF ANIMAL MATTER.~~

A. "Reduction" is defined as any heated process, including rendering, cooking, drying, dehydrating, digesting, evaporating and protein concentrating.

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

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

1. Incinerated at temperatures of not less than 1200 degrees Fahrenheit for a period of not less than 0.3 seconds; or

2. Processed in a manner determined by the Control Officer to be equally, or more, effective for the purpose of air pollution control than 1. above.

D. 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~~

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~~3. To abate fires pursuant to Chapter 2 (commencing with Section 13055) of Part 1 of Division 12 of the Health and Safety Code.~~

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1. Incinerated at temperatures of not less than 1200 degrees Fahrenheit for a period of not less than 0.3 seconds; or

2. Processed in a manner determined by the Control Officer to be equally, or more, effective for the purpose of air pollution control than 1. above.

D. 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 specified in the Permit to Operate for indicating temperature, pressure or other operating conditions.

~~RULE 315. 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 D1159-57T modified by omission of the mercuric chloride catalyst.

RULE 316. STORAGE AND TRANSFER OF GASOLINE.

A. Definitions.

1. "Submerged fill pipe" means any fill pipe the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the container.

2. "Phase I Vapor Recovery System" means:

a. A system, certified by the California Air Resources Board for reducing the emission into the atmosphere of organic gases resulting from the transfer of gasoline into a gasoline storage container; or

b. A system installed prior to July 1, 1976, approved by the District, for reducing the emission into the atmosphere or organic gases resulting from the transfer of gasoline into a gasoline storage container.

3. "Phase II Vapor Recovery System" means a system, certified by the California Air Resources Board, for reducing ~~the emission into the atmosphere of organic gases resulting~~

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~~order and in operation devices specified in the Permit to Operate for indicating temperature, pressure or other operating conditions.~~

RULE 315. 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 D1159-57T modified by omission of the mercuric chloride catalyst.

~~RULE 316. STORAGE AND TRANSFER OF GASOLINE.~~

A. Definitions.

1. "Submerged fill pipe" means any fill pipe the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the container.

2. "Phase I Vapor Recovery System" means:

a. A system, certified by the California Air Resources Board for reducing the emission into the atmosphere of organic gases resulting from the transfer of gasoline into a gasoline storage container; or

b. A system installed prior to July 1, 1976, approved by the District, for reducing the emission into the atmosphere or organic gases resulting from the transfer of gasoline into a gasoline storage container.

3. "Phase II Vapor Recovery System" means a system, certified by the California Air Resources Board, for reducing ~~the emission into the atmosphere of organic gases resulting~~

RULE 316. STORAGE AND TRANSFER OF GASOLINE. (Adopted 10/18/1971 and 9/30/1974, revised 6/7/1976, 6/14/1976, 10/1976 and 6/27/1977, readopted 10/23/1978, revised 6/11/1979, 1/17/1989, 7/11/1989, 7/10/1990, 11/13/1990, 12/14/1993, 4/17/1997, and 1/15/2009)

A. Applicability

The provisions of this rule shall apply to the storage and transfer of gasoline.

B. Definitions

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

1. "**Air Resources Board-certified vapor recovery system**": A vapor recovery system which has been certified by the Air Resources Board pursuant to Section 41954 of the Health and Safety Code.

2. "**Bottom loaded**": A gasoline delivery vessel shall be considered to be bottom loaded when the fuel transfer and vapor return lines have separate, independent, and dedicated attachments on the delivery vessel, when the inlet is flush with the bottom of the storage device, and when the delivery vessel hatches remain closed during fuel transfer.

3. "**Existing":** Any gasoline storage and transfer facility operating, constructed, or under construction as of July 10, 1990.

4. "**E85**": A petroleum distillate/alcohol blend having a Reid vapor pressure of 4.0 pounds per square inch or greater and meeting the requirements of Title 13 California Code of Regulations, Section 2250 et seq., and as further defined in Title 12 California Code of Regulations Section 2250(b) and containing a minimum 15 percent of petroleum distillate and a maximum 85 percent of ethyl alcohol.

5. "**Flexible Fuel Vehicle**": A vehicle specially designed and manufactured to operate on either gasoline or on E85.

6. "**Gasoline bulk plant**": An intermediate gasoline loading facility where delivery to the facility's storage containers and delivery from the facility is by truck.

7. "**Gasoline delivery vessel**": A truck, trailer, or railroad car with a storage device containing gasoline, or gasoline vapors, used to transport fuel or other petroleum products.

8. "**Gasoline terminal**": A gasoline loading facility where delivery to the facility's storage containers is by means other than truck.

9. "**Gasoline vapors**": The reactive organic compounds in the displaced vapors including any entrained liquid gasoline.

10. "**Leak free**": A leak rate of three (3) drops per minute or less of a liquid containing reactive organic compounds.

11. "**Mobile vehicle fueling facility**": A gasoline container equipped with a dispensing nozzle or nozzles mounted on a truck, trailer or other conveyance and used to fill motor vehicle fuel tanks.

12. "**Motor vehicle**": A vehicle as defined in Section 415 of the Vehicle Code.

13. "**Motor vehicle fueling facility**": A facility where gasoline is transferred directly into the fuel tanks of motor vehicles.

14. "**Onboard Refueling Vapor Recovery**": A motor vehicle-based vapor recovery system required by Title 13 California Code of Regulations, Section 1978, or 40 Code of Federal Regulations Part 86.

15. "**Phase I vapor recovery system**": A gasoline vapor recovery system or equipment which recovers the vapors generated during the transfer of gasoline from gasoline delivery vessels into gasoline storage containers.

16. "**Phase II vapor recovery system**": A gasoline vapor recovery system or equipment which recovers the vapors generated during the fueling of motor vehicles from gasoline storage containers.

17. "**Retail service station**": Any new or existing motor vehicle fueling facility subject to payment of California sales tax on gasoline sales.

18. "**Submerged fill pipe**": Any fill pipe or discharge nozzle which meets any one of the following conditions:

    a. If the storage container is filled from the top, the discharge opening must be entirely submerged when the liquid level is 6 inches above the bottom of the container.

    b. If the storage container is filled from the side, the discharge opening must be entirely submerged when the liquid level is 18 inches above the bottom of the container.

19. "**Storage container replacement**": Replacement of one or more gasoline storage containers or excavation of 50 percent or more of an existing facility's total underground liquid piping from the gasoline storage containers to the gasoline dispensers.

20. "**Switch loading**": The loading of organic liquids with a Reid vapor pressure of less than 4.0 pounds into a delivery vessel where the previous load was gasoline.

21. "**Vapor tight**": An emission of gaseous organic compounds which causes an appropriate analyzer sampling at a distance of one (1) centimeter from a source to register less than 10,000 parts per million, as methane, as determined by Environmental Protection Agency Reference Method 21 (Determination of Volatile Organic Compound Leaks).

C. Requirements - Gasoline Storage Containers

1. Any person transferring, permitting the transfer, or providing equipment for the transfer of gasoline into any gasoline storage container which has 250 gallons or more capacity shall use a permanently installed submerged fill pipe for such transfer.

2. Any person transferring, permitting the transfer, or providing equipment for the transfer of gasoline from a gasoline delivery vessel into any storage container with 250 gallons or more capacity shall use a permanently installed Air Resources Board-certified Phase I vapor recovery system.

3. Any person transferring, permitting the transfer, or providing equipment for the transfer of gasoline from any container with 250 gallons or more capacity into any motor vehicle fuel tank with more than 5 gallons capacity shall use a permanently installed Air Resources Board-certified Phase II vapor recovery system during the transfer. The Phase II vapor recovery system shall be certified to be at least 95 percent effective when used in conjunction with an Air Resources Board-certified Phase I vapor recovery system.

4. Any gasoline dispensing nozzle installed on a gasoline container subject to Section C.3 of this Rule shall be equipped with a hold-open latch except where prohibited by local ordinance, State or Federal regulation or the agency responsible for local fire control.

5. Any above ground gasoline storage container with 250 gallons or more but less than 40,000 gallons capacity shall be equipped with a pressure-vacuum relief valve with minimum pressure and vacuum settings of 90 percent of the maximum safe pressure and vacuum ratings of the container.

6. Any above ground gasoline storage container with 40,000 gallons capacity or more shall be equipped with a vapor loss control device as described in Rule 326.E.3.

7. No person shall store any gasoline with a true vapor pressure of 11.0 pounds per square inch absolute or greater under actual storage conditions in any storage container with an internal floating roof, internal floating roof cover, or external floating roof.

D. Requirements - Gasoline Terminals

1. Any person transferring, permitting the transfer, or providing equipment for the transfer of gasoline into a gasoline delivery vessel at a gasoline terminal shall use an Air Resources Board-certified vapor recovery system. This vapor recovery system shall limit the ROC emissions to 0.08 pounds per 1000 gallons of gasoline loaded.

2. Any person transferring, permitting the transfer, or providing equipment for the transfer of gasoline into a gasoline delivery vessel shall ensure that loading is accomplished in such a manner that displaced gasoline vapors are vented only to the vapor recovery system. Measures shall be taken to insure that the loading device is leak free when it is not in use and to accomplish complete drainage before the loading device is disconnected.

3. Switch loading shall be subject to the requirements of Section D.1 of this rule.

4. Product transfer equipment shall be configured to require that all gasoline delivery vessels are bottom loaded.

E. Requirements - Gasoline Bulk Plants

1. Any person transferring, permitting the transfer, or providing equipment for the transfer of gasoline into a gasoline delivery vessel at a gasoline bulk plant shall use an Air Resources Board-certified vapor recovery system. This vapor recovery system shall limit the ROC emissions to 0.50 pounds per 1000 gallons of gasoline loaded.

2. Any person transferring, permitting the transfer, or providing equipment for the transfer of gasoline into a gasoline delivery vessel shall ensure that loading is accomplished in such a manner that displaced gasoline vapors are vented only to the vapor recovery system. Measures shall be taken to insure that the loading device is leak free when it is not in use and to accomplish complete drainage before the loading device is disconnected.

3. Switch loading shall be subject to the requirements of Section E.1 of this rule.

F. Requirements - Gasoline Delivery Vessels

1. Any gasoline delivery vessel manufactured and purchased after June 27, 1977 shall be equipped with a vapor recovery system approved by the Air Resources Board pursuant to Section 41962 of the State Health and Safety Code. The vapor tightness of such system shall be determined using the Air Resources Board-approved test method or shall meet the specifications for a "vapor-tight

gasoline tank truck" specified in 40 CFR 60.501 (in conjunction with Environmental Protection Agency Test Method 27).

2. Any gasoline delivery vessel loaded with gasoline at a gasoline terminal or gasoline bulk plant, equipped with a vapor recovery system as required by Section D or Section E of this rule, shall be certified (deemed vapor tight) annually by the Air Resources Board pursuant to Section 41962 of the State Health and Safety Code.

3. Any gasoline delivery vessel used to transfer gasoline into any storage container with 250 gallons or more capacity shall be certified (deemed vapor tight) annually by the Air Resources Board pursuant to Section 41962 of the State health and Safety Code.

4. Any person transferring or permitting the transfer of gasoline into any gasoline delivery vessel shall use a submerged fill pipe or bottom loading.

G. Vapor Recovery System Operation and Maintenance Requirements

1. Any vapor recovery system or other equipment installed pursuant to any provision of this rule shall be maintained and operated in the same manner as when certified by the Air Resources Board.

2. All vapor recovery equipment shall be maintained in good working order and shall be leak free and vapor tight, except for the connection between the Phase II vapor recovery nozzle faceplate and the motor vehicle fill pipe during vehicle refueling.

3. Any vapor recovery system shall be maintained and operated in a manner that prevents the gauge pressure in a delivery vessel from exceeding 18 inches of water column or 6 inches of water vacuum.

4. No person shall use or permit the use of any Phase II system or any component thereof containing a defect identified in Title 17, California Code of Regulations, Section 94006, until it has been repaired, replaced, or adjusted as necessary to remove the defect. If District reinspection is required under Health and Safety Code Section 41960.2, use shall not be permitted until the District has authorized its use.

H. Test Methods

1. Compliance with the limits of Section D.1 shall be determined by Air Resources Board Test Method 203 or by performance test procedures specified in 40 CFR 60.503 (in conjunction with Environmental Protection Agency Reference Methods 2A, 2B, 25A and 25B).

2. Compliance with the limits of Section E.1 shall be determined by Air Resources Board Test Method 202 or by performance test procedures specified in 40 CFR 60.503 (in conjunction with Environmental Protection Agency Reference Methods 2A, 2B, 25A and 25B).

3. The vapor tightness of vapor recovery systems required by F.1 shall be determined using Air Resources Board Test Method 204.1 or shall meet the specifications for a "vapor-tight gasoline truck" specified in 40 CFR 60.501 (in conjunction with Environmental Protection Agency Test Method 27).

4. The test method required by the Air Resources Board for the annual certification of cargo tanks is Air Resources Board Test Procedure 204.1. To receive an annual Air Resources Board certification, cargo tanks operating in the State of California shall meet the requirements of the Air Resources Board Test Procedure 204.1. The United States Department of Transportation requires annual leakage tests of cargo tanks pursuant to the provisions in Title 49 CFR 180.407(c) and (h), which may include the use of the Environmental Protection Agency Test Method 27.

5. Compliance with the "leak free" and "complete drainage" requirements of Section D.2, E.2 and G.2 shall be determined by the procedures outlined in Air Resources Board Test Method 2-6.

I. Exemptions

1. Section C of this rule shall not apply to a transfer to a gasoline storage container used exclusively for wind machines in agricultural operations.

2. Sections C.2 and C.3 of this rule shall not apply to a transfer to or from a gasoline container used to fuel implements of husbandry as defined in Division 16, Chapter 1, of the California Vehicle Code if more than 50 percent of the annual throughput for the container is used to fuel implements of husbandry. Monthly records of container throughput shall be maintained for a period of two years after the end of each calendar year and shall be made available to the District upon request.

3. Section C.2 of this rule shall not apply to a transfer to completely fill a gasoline storage container for the purpose of leak testing, provided that the transfer does not exceed 1,000 gallons.

4. Section C.3 of this rule shall not apply to mobile vehicle fueling facilities

   a. which were purchased or for which a contract to purchase was signed prior to February 19, 1990. This exemption shall expire one year after a vapor return system (Phase II) for mobile fueling facilities is certified by the Air Resources Board.

   b. while being used to fuel vehicles responding to a duly proclaimed local emergency pursuant to Chapter II of the County Code.

5. Until January 1, 1992,

   a. Section E of this rule shall not apply to gasoline bulk plants with a daily throughput less than 20,000 gallons or an annual throughput less than 3,000,000 gallons (July 1 through June 30).

   b. To qualify for the exemption in Section I.5.a, above, the owner or operator of any gasoline bulk plant must submit a petition to the Air Pollution Control Officer not later than September 1 of each year stating:

      1) The maximum daily throughput and the annual throughput of gasoline at the bulk plant for the previous fiscal year (July 1 to June 30);

      2) The identity of all gasoline bulk plant customers who have storage containers of 250 or more gallons capacity, and the number and sizes of these storage containers; and,

      3) That the owner or operator does not transfer or permit the transfer of gasoline into any storage container of 250 gallons or more unless the container has a permanently installed submerged fill pipe.

   c. To qualify for the exemption in Section I.5.a, above, the owner or operator of any gasoline bulk plant must keep records of daily bulk plant throughput. Records shall be maintained for a period of two (2) years, and shall be made available to the District upon request.

   d. Section C.2 of this rule shall not apply to a transfer to a gasoline storage container at a motor vehicle fueling facility if all of the following conditions are true:

1) The capacity of the storage container is 5000 gallons or less; and,

2) The storage container receives gasoline exclusively from gasoline bulk plants that are exempt from Section E of this rule under the provisions of Section I.5.a and which satisfy the annual reporting requirements of Section I.5.b and the record keeping requirements of Section I.5.c.

e. Sections C.2, C.3 and C.5 shall not apply to storage containers which have capacities of 1500 gallons or less, except for those installed at retail service stations.

6. Sections C.2 and C.3 of this rule shall not apply to existing aboveground tanks at a motor vehicle fueling facility, with a calendar year throughput not greater than 5000 gallons per month or 50,000 gallons per year, until an Air Resources Board-certified vapor return system of the balance type (Phase I or Phase II) for the installed tank configuration is available. This exemption shall expire one year after a vapor return system is certified. Monthly records of storage container throughput shall be maintained for a period of two years after the end of each calendar year and shall be made available to the District upon request.

7. Section C.3 of this rule shall not apply to the following:

a. Transfer of gasoline from any storage tank into a vehicle fuel tank at any non-retail motor vehicle fueling facility where 100 percent of vehicles refueled are equipped with Onboard Refueling Vapor Recovery provided that the Phase II vapor recovery system, if previously installed, has been properly removed in a manner approved in writing by the Control Officer. Any person claiming this exemption shall maintain records of the make, model year, vehicle identification number and any other information indicating whether the vehicle is equipped with Onboard Refueling Vapor Recovery, for all vehicles refueled at such facility. These records shall be maintained on site for at least three years and be made available to the District upon request. In lieu of refueling records, the Control Officer may approve an alternative method for verifying or ensuring that only vehicles equipped with Onboard Refueling Vapor Recovery are refueled at such facility.

b. Transfer of E85 from any storage tank into a Flexible Fuel Vehicle fuel tank at any retail service station or non-retail motor vehicle fueling facility.

J. Compliance Schedules

1. Except as provided in Section J.2 below, the owner or operator of any existing gasoline storage and transfer facility subject to Section C of this rule shall comply with Section C of this rule by January 17, 1990. In addition, the owner or operator shall comply with the following schedule:

a. Apply for Authority to Construct not later than April 17, 1989.

b. Complete construction not later than September 17, 1989.

c. Arrange for District-approved performance testing and District inspection not later than October 17, 1989.

d. Apply for Permit to Operate not later than November 17, 1989.

2. The owner or operator of any existing gasoline storage and transfer facility exempted under Section I.5 of this rule shall comply with this rule by January 1, 1992. In addition, the owner or operator shall apply for an Authority to Construct not later than January 1, 1991.

3. The owner or operator of any new gasoline storage and transfer facility shall comply with the provisions of this rule at the time gasoline is first stored at the facility.

4. The owner or operator of any existing gasoline storage and transfer facility shall comply with Section C.4 of this rule by October 1, 1991. For the purpose of Regulation II and Regulation VIII, installation of hold open latches shall not be considered to be a modification.

5. The owner or operator of any mobile vehicle fueling facility exempted by Section I.4 shall comply with the provisions of Section C.3 by one year from the date that a vapor return system (Phase II) for a mobile vehicle fueling facility is certified by the Air Resources Board.

6. The owner or operator of any gasoline storage tank exempted by Section I.6 shall comply with the provisions of Section C.2 or C.3 by one year from the date that a vapor return system (Phase I or Phase II) for their tank configuration is certified by the Air Resources Board.

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~~certification of any two Phase II system types by the California Air Resources Board.~~

RULE 317. ORGANIC SOLVENTS.

A. This Rule shall not apply to:

1. The manufacture of organic solvents, or the transport or storage of organic solvents or materials containing organic solvents.

2. The use of equipment for which other requirements are specified by Rules 325, 326 or 316, or which are exempt from air pollution control requirements by said Rules.

3. The spraying or other employment of insecticides, pesticides or herbicides.

4. The employment, application, evaporation, or drying of saturated halogenated hydrocarbons or percholoroethylene.

5. The use of any material, in any article, machine, equipment or other contrivance described in sections B.1, B.2, B.3 or D, if:

a. The volatile content of such material consists only of water and organic solvents; and

b. The organic solvents comprise not more than 20% by volume of said volatile content; and

c. The volatile content is not photochemically reactive; and

d. The organic solvent or any material containing organic solvent does not come into contact with flame.

B. A person shall not discharge, into the atmosphere, organic materials in quantities greater than that shown in subsections 1.,2. and 3. below, unless said discharge has been reduced by at least 85 percent, from any article, machine, equipment or other contrivance:

1. In which any organic solvent or any material containing organic solvent which comes into contact with flame, or is baked, heat-cured or heat-polymerized in the presence of oxygen, is reduced to less than 15 pounds per day or 3 pounds per hour; or

2. When used under conditions other than described in section B.1 and employing or applying any photochemically reactive solvent, the emissions containing such photochemically reactive solvent shall be reduced to less than 40 pounds per day or 8 pounds per hour; or

3. When using any nonphotochemically reactive organic solvent or any material containing such solvent, such emissions will be reduced to less than 3000 pounds per day or 450 pounds per hour; or

4. Emissions of organic materials into the atmosphere resulting from air or heated drying of products for the first 12 hours after their removal from any article, machine, equipment or other contrivance described in this section shall be included in determining compliance with sections B.2 and B.3 above. Emissions resulting from baking, heat-curing or heat-polymerizing as described in section B.1 shall be excluded from determination of compliance with sections B.2 and B.3 above.

C. Those portions of any series of articles, machines, equipment or other contrivances designed for processing a continuous web, strip or wire which emit organic materials and using operations described in section B shall be collectively subject to compliance with section B.

D. Emissions of organic materials to the atmosphere from the cleanup with photochemically reactive solvents of any article, machine, equipment or other contrivance described in section B shall be included with the other emissions of organic materials from that article, machine, equipment or other contrivance for determining compliance with this Rule.

E. Emissions of organic materials into the atmosphere required to be controlled by section B shall be reduced by:

1. Incineration, provided that 90 percent or more of the carbon in the organic material being incinerated is oxidized to carbon dioxide; or by

2. Adsorption; or by

3. Processing in a manner determined by the Control Officer to be not less effective than 1 or 2 above.

F. A person incinerating, adsorbing, or otherwise processing organic materials pursuant to this Rule shall provide, properly install and maintain in calibration, good working order and operation, devices as specified in the Authority to Construct or the Permit to Operate, for indicating termperatures, pressures, rates of flow or other operating conditions necessary to determine the degree and effectiveness of air pollution control equipment.

G. Any person using organic solvents or any materials containing organic solvents shall supply the Control Officer upon request and in the manner and form prescribed by him, written evidence of the chemical composition, physical properties and amount consumed for each organic solvent used.

~~RULE 318. VACUUM PRODUCING DEVICES OR SYSTEMS - SOUTHERN ZONE.~~

A person shall not discharge into the atmosphere more than 3 pounds of organic materials in any one hour from any vacuum producing devices or systems, including hot wells and accumulators, unless said discharge has been reduced by at least 90 percent.

RULE 319. ASPHALT AIR BLOWING - SOUTHERN ZONE.

A person shall not operate or use any article, machine, equipment or other contrivance for the air blowing of asphalt unless all gases, vapors and gas-entrained effluents from such an article, machine, equipment or other contrivance are:

A. Incinerated at temperatures of not less than 1400 degrees Fahrenheit for a period of not less than 0.3 seconds, or

B. Processed in a manner determined by the Control Officer to be equally, or more, effective for the purpose of air pollution control than A. above, and considered Best Available Control Technology.

RULE 320. CONTROL OF DRY CLEANING SOLVENT VAPOR LOSSES.

A. A "dry cleaning operation" means that process by which an organic solvent is used in the commercial cleaning of garments and other fabric materials.

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~~G. Any person using organic solvents or any materials~~ containing organic solvents shall supply the Control Officer upon request and in the manner and form prescribed by him, written evidence of the chemical composition, physical properties and amount consumed for each organic solvent used.

RULE 318. VACUUM PRODUCING DEVICES OR SYSTEMS - SOUTHERN ZONE.

A person shall not discharge into the atmosphere more than 3 pounds of organic materials in any one hour from any vacuum producing devices or systems, including hot wells and accumulators, unless said discharge has been reduced by at ~~least 90 percent.~~

RULE 319. ASPHALT AIR BLOWING - SOUTHERN ZONE.

A person shall not operate or use any article, machine, equipment or other contrivance for the air blowing of asphalt unless all gases, vapors and gas-entrained effluents from such an article, machine, equipment or other contrivance are:

A. Incinerated at temperatures of not less than 1400 degrees Fahrenheit for a period of not less than 0.3 seconds, or

B. Processed in a manner determined by the Control Officer to be equally, or more, effective for the purpose of air pollution control than A. above, and considered Best Available Control Technology.

~~RULE 320. CONTROL OF DRY CLEANING SOLVENT VAPOR LOSSES.~~

~~A. A "dry cleaning operation" means that process by which an organic solvent is used in the commercial cleaning of garments and other fabric materials.~~

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RULE 320 PETROLEUM SOLVENT DRY CLEANERS

A. A "dry cleaning operation" means that process by which an organic solvent is used in the commercial cleaning of garments and other fabric materials.

B. Any dry cleaning establishment that uses solvents containing 4% or more by volume of any photochemically-reactive solvent, except perchloroethylene or any saturated halogenated hydrocarbon, shall reduce the emissions of the discharged organics by 90% by use of activated carbon adsorption or other appropriate means.

C. Effective July 1, 1979 a person shall not operate any dry cleaning equipment which uses petroleum-based solvent unless:

1. There is no liquid leaking from any portion of the equipment.
2. Solvents are stored in closed containers, which may be equipped with vents approved by the Control Officer.
3. 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 as required for proper operation or maintenance.
4. The still residue is stored in sealed containers or underground tanks, and is disposed of at a Class I dump or is disposed of by other procedures approved by the Control Officer.
5. The used filtering material is put into a sealed container immediately after removal from the filter and is disposed of at a Class I dump, unless the dry cleaning system 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.
    b. Diatomaceous earth filtering system, connected to a centrifugal solvent extractor or other device capable of removing sufficient solvent, so that the remaining

diatomaceous earth and soil does not contain more than 0.4 pounds of solvent per pound of filter powder and soil removed.

c. Any other type of filtering system or process found by the Control Officer to emit into the atmosphere 1 pound or less of solvent per 100 pounds of articles cleaned.

D. A person shall not operate any dry cleaning equipment which uses petroleum-based solvent unless all exhaust gases from drying tumblers and cabinets are vented through a carbon adsorber or other control device which reduces the total emissions of hydrocarbon vapors to the atmosphere during the entire drying cycle by at least 90 percent by weight.

1. a. Effective July 1, 1981 all petroleum solvent dry cleaning plants consuming more than 50,000 liters (13,209 gallons) of solvent per year shall comply with the provisions of Section D.

b. Effective July 1, 1983 all petroleum solvent dry cleaning plants consuming more than 25,000 liters (6,657 gallons) of solvent per year shall comply with the provisions of Section D.

c. Effective July 1, 1985 all petroleum solvent dry cleaning plants consuming more than 10,000 liters (2,642 gallons) of solvent per year shall comply with the provisions of Section D.

2. Increments of Progress

In order to conform with the compliance dates specified in Section D.1, an owner or operator of petroleum solvent dry cleaning equipment shall comply with the following increments of progress schedule:

a. Twelve months prior to the applicable effective date, submit to the Control Officer an application for Permit to Construct, describing at a minimum, the steps that will be taken to achieve compliance with the provisions of Section D of this Rule.

b. Nine months prior to the applicable effective date, award the contract for the emission control system, or issue purchase orders for the component parts to accomplish emission control.

c. Five months prior to the applicable effective date, commence on-site construction or installation of equipment to reduce or control emissions.

d. One month prior to the applicable effective date, complete on-site construction or installation of equipment to reduce or control emissions.

e. On the applicable effective date, be in full compliance with the provisions of Section D of this Rule.

E. Reporting Requirements

On or before February 1 or each year, any person using petroleum-based dry cleaning solvent for dry cleaning shall report to the Control Officer the quantity of solvent used in the previous calendar year.

RULE 321. SOLVENT CLEANING MACHINES AND SOLVENT CLEANING. (Adopted 2/24/1975, readopted 10/23/1978, revised 6/11/1979, 7/10/1990, 4/17/1997, 7/17/1997, 9/18/1997, 9/20/2010, and 6/21/2012)

A. Applicability

This rule shall apply to any person who owns, operates, or uses any solvent cleaning machine or performs any solvent cleaning operation outside of a solvent cleaning machine during the production, repair, maintenance, or servicing of parts, products, tools, machinery, equipment, or in general work areas at any stationary source.

B. Exemptions

Except as otherwise specifically provided herein, the provisions of this rule shall not apply to the following:

1. Any solvent cleaning machine equipped with and any solvent cleaning performed with a solvent (including emulsions) that contains two percent by weight or less of each of the following:

    a. Reactive organic compounds (as determined by Environmental Protection Agency method 24), and

    b. Toxic air contaminants (as determined by generic solvent data, solvent manufacturer's composition data or by a gas chromatography test and a mass spectrometry test).

    c. Any person claiming this exemption shall maintain the records specified in Sections R.1.a.1) and R.1.a.2) in a manner consistent with Section R.3 and make them available for review.

2. The cleaning of architectural coating application equipment provided that the solvent used does not exceed 950 grams of reactive organic compound per liter of material.

3. Dry cleaning operations of clothing or other fabrics covered under Rule 320, Petroleum Solvent Dry Cleaners, or California Code of Regulations Title 17, Section 93109, Airborne Toxic Control Measure for Emissions of Perchloroethylene from Dry Cleaning and Water-Repelling Operations.

4. Stripping of cured coatings, cured adhesives, cured sealants, and cured inks, except the stripping of such materials from spray application equipment.

5. Notwithstanding Section B.1, any solvent cleaning machine that uses any halogenated hazardous air pollutant solvent provided such a solvent cleaning machine is subject to 40 CFR, Part 63, Subpart T, National Emission Standards for Halogenated Solvent Cleaning (Sections 63.460 et. seq.).

6. Any equipment or operation that is subject to or specifically exempted by any of the following District rules.

    a. Rule 325, Crude Oil Production and Separation.

    b. Rule 326, Storage of Reactive Organic Compound Liquids.

    c. Rule 330, Surface Coating of Metal Parts and Products.

    d. Rule 337, Surface Coating of Aerospace Vehicles and Components.

    e. Rule 339, Motor Vehicle and Mobile Equipment Coating Operations.

f. Rule 343, Petroleum Storage Tank Degassing.

g. Rule 344, Petroleum Sumps, Pits and Well Cellars.

h. Rule 349, Polyester Resin Operations.

i. Rule 351, Surface Coating of Wood Products.

j. Rule 353, Adhesives and Sealants.

k. Rule 354, Graphic Arts.

Notwithstanding this exemption, the applicable Rule 321 requirements apply if a rule for any above process specifies a solvent cleaning machine shall comply with the applicable provisions of Rule 321.

7. Janitorial cleaning, including graffiti removal.

8. Provisions of Sections H.7, I.7, K.6, and, M.1 shall not apply to the following:

a. Cleaning of solar cells, laser hardware, scientific instruments, high-precision optics, telescopes, microscopes, avionic equipment, and aerospace and military fluid systems; and

b. Cleaning in laboratory tests and analyses, including quality assurance and quality control applications, bench scale projects, or short-term (less than 2 years) research and development projects; and

c. Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics.

d. In addition, the provisions of Sections H.7, I.7, and K.6 shall not apply to solvent cleaning machines employed with solvents having 900 grams of reactive organic compound per liter of material or less during the production, repair, maintenance, or servicing of electrical apparatus components, electronic components, satellites, satellite components, aerospace vehicles, aerospace vehicle components, aerospace vehicle payloads, aerospace vehicle payload components, medical devices, or silicone manufacturing.

9. Solvent cleaning with aerosol products shall not be subject to Section D.9 and Section M.1 provisions and the Section M.2.c prohibition on solvent atomization provided:

a. 160 fluid ounces or less of aerosol products are used per day, per facility, and

b. Records are maintained as specified in Sections R.2 and R.3, and

c. The aerosol products comply with volatile organic compound limits for consumer products specified in the California Code of Regulations, Title 17, Section 94507 et seq.

10. Provisions of Section M.1, Table 1, Solvent Cleaning Activity (c) shall not apply to the cleaning of application equipment when such equipment is used to apply a coating on a satellite or when applying a radiation-effect coating.

11. Section D.9 and M.2.c prohibitions on solvent atomization shall not apply to the following applications:

a. Cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems.

b. Cleaning with hand-held spray bottles, squirt bottles, and other closed containers having a capacity of one liter or less.

c. Cleaning of gas turbines or jet engines using a gas-path solvent cleaner.

12. De-icing of aircraft and aerospace vehicles.

13. Solvent cleaning with a solvent containing 50 grams of reactive organic compounds per liter of material or less shall not be subject to the Section D.9 provision.

14. Solvent cleaning to disinfect and decontaminate surfaces and equipment in hospitals, clinics, medical facilities, dental care facilities, and other health care facilities, including but not limited to, sanatoriums, convalescent hospitals, convalescent homes, skilled nursing facilities, nursing homes, blood banks, and bloodmobiles.

15. Provisions of Section M.1 shall not apply if the net aggregate amount of solvent used for all solvent cleaning subject to Rule 321 (i.e., subject to Sections D, M.2, and/or M.3 provisions) at a stationary source does not exceed 55 gallons per year. Solvents with a reactive organic compound content of 50 grams per liter of material or less do not count towards the 55 gallons per year aggregate limit. Any person claiming this exemption shall maintain records as specified in Sections R.2 and R.3.

16. Provisions of Section M.1 shall not apply to the following applications:

a. Cleaning of ultraviolet lamps used to cure ultraviolet inks coatings, adhesives, or resins.

b. Cleaning of mold release compounds from molds.

c. Cleaning of aerospace assembly and subassembly surfaces that are exposed to strong oxidizers or reducers such as nitrogen tetroxide, liquid oxygen, or hydrazine.

d. Cleaning of paper gaskets.

e. Cleaning of clutch assemblies where rubber is bonded to metal by means of an adhesive.

f. Cleaning of hydraulic actuating fluid from filters and filter housings.

g. Wipe cleaning to remove crude oil and crude oil residue from well workover, drilling operations, and other activities related to petroleum production and processing on offshore platforms, provided the solvent reactive organic compound content does not exceed 800 grams per liter of material and the reactive organic compound composite partial pressure is no more than 8 millimeters of mercury at 20 degrees Celsius.

17. Provisions of Sections H.7, I.7, and K.6 shall not apply to the following applications, provided the solvent reactive organic compound content does not exceed 900 grams per liter of material and the reactive organic compound composite partial pressure is no more than 5 millimeters of mercury at 20 degrees Celsius:

a. Cleaning associated with the manufacturing of nuts and bolts designed for automotive racing applications.

b. Cleaning of precision–lapped mechanical seals in pumps that handle liquefied gasses.

18. Provisions of Sections J.11.a, d, and e shall not apply to batch vapor cleaning machines with a solvent/air interface area less than 929 square centimeters (1 square foot) or a solvent capacity less than 2 gallons, provided all such solvent cleaning machines emit, in aggregate, less than 55 pounds of reactive organic compounds per month per stationary source. Any person claiming this exemption shall maintain records as specified in Sections R.1 and R.3.

19. The use of solvent for purposes other than cleaning.

20. The Section E.7 and Section J.11.a, d, and e provisions shall not apply to batch vapor cleaning machines provided:

    a. The equipment was installed before January 1, 2007; and

    b. The solvent/air interface area is less than 4.40 square feet or the solvent capacity is less than 2 gallons; and

    c. The equipment is used only for cleaning electronic components; and

    d. The total aggregate reactive organic compound emissions from all batch vapor cleaning machines subject to this exemption do not exceed 188 pounds per month per stationary source; and

    e. The equipment is subject to a Permit to Operate to help facilitate verifications that the requirements of subparagraphs B.20.a, b, c, and d are met.

    f. In addition, the Section J.8 requirement to have a freeboard ratio of 1.0 or greater shall not apply to solvent cleaning machines meeting the requirements in subsections a – e above, provided the solvent cleaning machines have a freeboard ratio of 0.75 or greater.

21. The Section I.3, I.4, and I.7 requirements for unheated batch cleaning machines shall not apply, provided the equipment is used in medical device manufacturing when performing incidental product cleaning in conjunction with quality assurance or quality control tests (e.g., when conducting leak testing of silicone shells) and the solvent reactive organic compound content does not exceed 900 grams per liter of material.

22. Metal lift-off and other semiconductor and microelectromechanical device manufacturing processes involving thin film deposition, vacuum deposition, and dry etching operations; including any maintenance activities associated with such operations.

23. The solvent container draining and filling provisions in Section D.12 shall not apply to solvent transfers out of a sump, provided the sump has a maximum capacity of 8 gallons or less, such sump is easily removed from the solvent cleaning machine, and the solvent is poured from the sump directly into a bulk storage container.

24. Any batch vapor cleaning machine meeting all of the following requirements shall be exempt from the Section J.8 requirement to have a freeboard ratio of 1.0:

    a. The equipment is used only for cleaning electronic components; and

    b. The dimensions are such that the freeboard ratio is 0.75 or greater; and

    c. The solvent cleaning machine is equipped with the freeboard refrigeration device for which the chilled air blanket temperature (expressed in degrees Fahrenheit) at the coldest point on the vertical axis in the center of the air blanket shall be no greater than 30 percent of the initial boiling point (expressed in degrees Fahrenheit) of the solvent used or no greater than minus 4 degrees Fahrenheit; and

d. The batch vapor cleaning machine is equipped with a superheated vapor zone where parts remain in the vapor zone for at least the minimum dwell time, as specified by the manufacturer. The temperature within the superheated vapor zone shall be at least 10 degrees Fahrenheit above the initial boiling point of the solvent being used.

C. Definitions

See Rule 102 for definitions not limited to this rule. For purposes of this rule the following definitions shall apply:

"Aerosol Product" means a hand-held, non-refillable container that expels pressurized product by means of a propellant-induced force.

"Aerospace Vehicle" means the completed unit of any aircraft, helicopter, missile, or space vehicle.

"Aerospace Vehicle Component" means any raw material, partial or completed fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile, or space vehicle, including mockups and prototypes.

"Air Blanket" means the layer of air inside the solvent cleaning machine freeboard located above the solvent/air interface.

"Airless Solvent Cleaning Machine" means any solvent cleaning machine that is automatically operated and seals at an absolute internal pressure of 0.02 pounds per square inch absolute or less, prior to the introduction of solvent vapor into the cleaning chamber and maintains differential pressure under vacuum during all cleaning and drying cycles.

"**Air-Tight Solvent Cleaning Machine"** means any solvent cleaning machine that is automatically operated and seals at a differential pressure no greater than 0.5 pounds per square inch absolute during all cleaning and drying operations.

"Automated Parts Handling System" means a mechanical device that carries all parts and parts baskets at a controlled speed from the initial loading of soiled or wet parts through the removal of the cleaned or dried parts. Automated parts handling systems include, but are not limited to, hoists and conveyors.

"Batch Cleaning Machine" means a solvent cleaning machine in which individual parts or a set of parts move through the entire cleaning cycle before new parts are introduced into the solvent cleaning machine. An open-top vapor cleaning machine is a type of batch cleaning machine. A solvent cleaning machine, such as a Ferris wheel or a cross-rod degreaser, that clean multiple batch loads simultaneously and are manually or semi-continuously loaded are batch cleaning machines.

"Bench Scale Project" means a project (other than at a research and development facility) that is operated on a small scale, such as one capable of being located on a laboratory bench top.

"Carbon adsorber" means a bed of activated carbon into which an air-solvent gas-vapor stream is routed and which adsorbs the solvent on the carbon.

"Carry-out" see **"Drag-out."**

"Circumferential Trough" means a receptacle located below the primary condenser that conveys condensed solvent and atmospheric moisture to a water separator.

"Cold Cleaning Machine" means any device or piece of equipment that contains and/or uses liquid solvent, into which parts are placed to remove soils from the surfaces of the parts or to dry the parts.

Cleaning machines that contain and use heated, nonboiling solvent to clean the parts are classified as cold cleaning machines. Cold solvent wash stations are classified as cold cleaning machines.

"Condenser" or **"Primary Condenser"** means a series of circumferential cooling coils on a vapor cleaning machine through which a chilled substance is circulated or recirculated to provide continuous condensation of rising solvent vapors and, thereby, create a concentrated solvent vapor zone.

"Condenser Flow Switch" means a safety switch connected to a thermostat that shuts off the sump heater if the condenser coolant is either not circulating or exceeds its designed operating temperature.

"Continuous Cleaning Machine" see **"In-Line Cleaning Machine."**

"Continuous Web Cleaning Machine" means a solvent cleaning machine in which parts such as film, coils, wire, and metal strips are cleaned at speeds typically in excess of 11 feet per minute. Parts are generally uncoiled, cleaned such that the same part is simultaneously entering and exiting the solvent application area of the solvent cleaning machine, and then recoiled or cut. For the purposes of this rule, all continuous web cleaning machines are considered to be a subset of in-line solvent cleaning machines.

"Conveyorized (In-Line or Continuous) Cold Cleaning Machine" means any continuously loaded solvent cleaning machine that is not a conveyorized vapor cleaning machine.

"Conveyorized (In-Line or Continuous) Cleaning Machine" means any cold or vapor solvent cleaning machine, that uses an automated parts handling system to automatically provide a continuous supply of parts to be cleaned. Conveyorized (in-line or continuous) cleaning machines include but are not limited to vibra, monorail, mesh, belt, web, and strip cleaning machines. Strip cleaning machines clean material by drawing the strip itself through the unit for cleaning prior to coating or other fabrication processes**.** For the purposes of this rule "**Conveyorized (In-Line or Continuous) Cleaning Machine"** has the same meaning as **"In-Line Cleaning Machine."**

"Conveyorized (In-Line or Continuous) Vapor Cleaning Machine" means any continuously loaded solvent cleaning machine that immerses parts in boiling solvent or in solvent vapors generated by boiling solvent. Conveyorized (in-line or continuous) cleaning machines that contain any vapor cleaning sections shall be considered to be conveyorized vapor cleaning machines for the purposes of this rule.

"Cross-Rod Solvent Cleaning Machine" means a batch solvent cleaning machine in which parts baskets are suspended from "cross-rods" as they are moved through the machine. In a cross-rod cleaning machine, parts are loaded semi-continuously, and enter and exit the machine from a single portal.

"Downtime Mode" means the time period when a solvent cleaning machine is not cleaning parts and the sump heating coils, if present, are turned off.

"Drag-out" means solvent carried out of a solvent cleaning machine that adheres to or is entrapped in the part being removed.

"Drying Tunnel" means an add-on enclosure extending from the exit area of a solvent cleaning machine that reduces drag-out losses by containing evaporating solvent.

"Dwell" means the technique of holding parts within the freeboard area but above the vapor zone of the solvent cleaning machine. Dwell occurs after cleaning to allow solvent to drain from the parts or parts baskets back into the solvent cleaning machine.

"Dwell Time" means the period of time when parts are held within the freeboard area of the solvent cleaning machine, after cleaning, to allow solvent to drain from the parts back into the solvent cleaning machine.

"Electrical Apparatus Components" means the internal components such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in an apparatus that generates or transmits electrical energy including, but not limited to: alternators, generators, transformers, electric motors, cables, and circuit breakers, except for the actual cabinet in which the components are housed. Electrical components of graphic arts application equipment and hot-line tools are also included in this category.

"Electronic Components" means the portions of an assembly, including, but not limited to: circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, magnetic tapes and tape drive mechanisms, discs and disc drive mechanisms, electro-optical devices (e.g., optical filters, sensor assemblies, infrared sensors, charged coupled devices, thermal electric coolers, and vacuum assemblies), solid state components, semiconductors (e.g., diodes, zeners, stacks, rectifiers, integrated microcircuits, transistors, solar cells, light sensing devices, and light-emitting devices), and other electrical fixtures, except for the actual cabinet in which the components are housed.

"Emulsion" means a suspension of small droplets of one liquid in a second liquid.

"Emission Control Device" means a device for reducing emissions of reactive organic compounds or toxic air contaminants to the atmosphere.

"Evaporation" means to change into a vapor, normally from a liquid state.

"Existing Solvent Cleaning Operation" means solvent cleaning that is being performed as of September 20, 2010.

"Existing Solvent Cleaning Machine" means any solvent cleaning machine that is installed as of September 20, 2010.

"Fluid System" means a power transmission system that uses the force of flowing liquids and gases to transmit power. Fluid systems include hydraulic systems and pneumatic systems.

"Freeboard Area" means; for a batch cleaning machine, the area within the solvent cleaning machine that extends from the solvent/air interface to the top of the solvent cleaning machine; for an in-line cleaning machine, it is the area within the solvent cleaning machine that extends from the solvent/air interface to the bottom of the entrance or exit opening, whichever is lower.

"Freeboard Height" means; for a batch cleaning machine, the distance from the solvent/air interface as measured during the idling mode or the top of the solvent drain of a remote reservoir cold cleaning machine to the top of the cleaning machine; for an in-line cleaning machine, it is the distance from the solvent/air interface to the bottom of the entrance or exit opening, whichever is lower as measured during the idling mode.

"Freeboard Ratio" means the ratio of the solvent cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.

"Freeboard Refrigeration Device (Also Called a 'Chiller')" means a secondary cooling coil mounted above the primary condenser that provides a chilled air blanket above the solvent vapor air-interface to cause the condensation of additional solvent vapor. A primary condenser capable of meeting the requirements of Section J.9.a or L.10.a is defined as both a freeboard refrigeration device and a primary condenser for the purposes of this rule.

"Gas-Path Solvent Cleaner" means a solvent cleaning machine (including ancillary equipment) that applies solvent to the interior of a gas turbine or jet engine for the removal of corrosion or combustion deposits.

"General Work Surface" means an area of a medical device or pharmaceutical facility where solvent cleaning is performed on work surfaces including, but not limited to, tables, countertops, and laboratory benches. General work surface shall not include items defined under janitorial cleaning.

"Guillotine Cover" means a cover that is biparting and moves in the same plane.

"Halogenated Hazardous Air Pollutant Solvent" means methylene chloride (Chemical Abstracts Service No. 75-09-2), perchloroethylene (Chemical Abstracts Service No. 127-18-4), trichloroethylene (Chemical Abstracts Service No. 79-01-6), 1,1,1-trichloroethane (Chemical Abstracts Service No. 71-55-6), carbon tetrachloride (Chemical Abstracts Service No. 56-23-5), and chloroform (Chemical Abstracts Service No. 67-66-3).

"High-Precision Optics" means any optical element used in an electro-optical device that is designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

"High Volatility Solvent" means any solvent that is not classified as a low volatility solvent.

"Hoist" means a mechanical device that carries the parts basket and the parts to be cleaned from the loading area into the solvent cleaning machine and to the unloading area at a controlled speed. A hoist may be operated by controls or may be programmed to cycle parts through the cleaning cycle automatically.

"Idling Mode" means the time period when a solvent cleaning machine is not actively cleaning parts and the sump heating coils, if present, are turned on.

"Initial Boiling Point" means the boiling point of a liquid as defined by ASTM D 1078-05, "Standard Test Method for Distillation Range of Volatile Organic Liquids," ASTM International.

"In-Line Cleaning Machine" or **"Continuous Cleaning Machine"** means any solvent cleaning machine that uses an automated parts handling system, typically a conveyor, to automatically provide a continuous supply of parts to be cleaned. These units are fully enclosed except for the conveyor inlet and exit portals. In-line cleaning machines can be either cold or vapor cleaning machines.

"Lip Exhaust" means a device installed at the top of the opening of a solvent cleaning machine that draws in air and solvent vapor from the freeboard area and ducts the air and vapor away from the solvent cleaning machine.

"Liquid Leak" means any solvent leak at a rate of more than three drops per minute or any visible liquid mist.

"Low Volatility Solvent" means a solvent with an initial boiling point that is greater than 120 degrees Celsius (248 degrees Fahrenheit) and with a temperature, as used, at least 100 degrees Celsius (212 degrees Fahrenheit) below the initial boiling point.

"Maintenance Cleaning" means a solvent cleaning operation or activity carried out to keep clean general work areas where manufacturing or repair activity is performed, to clean tools, machinery, molds, forms, jigs, and equipment. This definition does not include the cleaning of adhesive, coating, or ink application equipment.

"Manufacturing Process" means the process of making goods or articles by hand or by machinery.

"Medical Device" means an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component, accessory, raw material, partial or completed fabricated part, that meets one of the following conditions:

1. It is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease; or
2. It is intended to affect the structure or any function of the body; or
3. It is defined in the National Formulary or the United States Pharmacopeia, or any supplement to them.

"Mixer" means any device that mechanically agitates the liquid solvent to enhance the cleaning process.

"Nonabsorbent Container" means any container made of nonporous material, which does not allow the migration of the liquid solvent through it.

"Nonatomized Solvent Flow" means the use of a solvent in the form of a liquid stream without atomization.

"Nonleaking Container" means a container without any liquid leaks.

"Open-Top Vapor Cleaning Machine" means a batch solvent cleaning machine that has its upper surface open to the air and boils solvent to create solvent vapor used to clean and/or dry parts.

"Primary Condenser" see "**Condenser**."

"Radiation-Effect Coating" means a material that prevents radar detection.

"Reactive Organic Compound Composite Partial Pressure" means the sum of the partial pressures of compounds defined as reactive organic compounds. Reactive organic compound composite pressure shall be calculated as follows:

$$PP_c = \frac{\sum_{i=1}^{n} \left(W_i\right)\left(VP_i\right) / \left(MW_i\right)}{\left(W_w / MW_w\right) + \sum_{e=1}^{n} \left(W_e / MW_e\right) + \sum_{i=1}^{n} \left(W_i / MW_i\right)}$$

Where:

W_i = Weight of the "i"th reactive organic compound, in grams
W_w = Weight of water, in grams
W_e = Weight of the "e"th exempt organic compound, in grams
MW_i = Molecular weight of the "i"th reactive organic compound, in grams per grams-mole
MW_w = Molecular weight of water, in grams per grams-mole
MW_e = Molecular weight of the "e"th exempt compound, in grams per grams-mole
PP_c = Reactive organic compound composite partial pressure at 20 degrees Celsius, in millimeters of mercury
VP_i = Vapor pressure of the "i"th reactive organic compound at 20 degrees Celsius, in millimeters of mercury

"Refrigerated Freeboard Chiller" see the definition for "**Freeboard Refrigeration Device (also called a 'Chiller')."**

"Remote Reservoir Cold Cleaning Machine" means any device in which liquid solvent is pumped to a sink-like work area that drains solvent back into an enclosed container while parts are being cleaned, allowing no solvent to pool in the work area. A remote reservoir cold cleaning machine that uses an enclosed container that is accessible for dipping or soaking parts is also considered to be a batch cleaning machine.

"Repair Cleaning" means a solvent cleaning operation or activity carried out during a repair process.

"Repair Process" means the process of returning a damaged object or an object not operating properly to good condition.

"Research and Development Activities" means activities conducted at a research or laboratory facility whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a de minimis manner.

"Rotating Basket" means a perforated or wire mesh cylinder containing parts to be cleaned that is slowly rotated while proceeding through the solvent cleaning machine.

"Scientific Instrument" means an instrument (including the components, assemblies, and subassemblies used in their manufacture) and associated accessories and reagents that is used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.

"Semiconductor Manufacturing" means any process or operation producing semiconductor material, slicing or polishing semiconductor material, utilizing photoresist to manufacture intermediate products, or producing either semiconductor devices or related solid state devices.

"Silicone Manufacturing" means any process or operation producing a silicone raw material (e.g., polymer, fluid, gum, gel, elastomer, dispersion, or other bulk state silicone material). Silicone manufacturing also includes any on site preliminary processes or operations that occurs before a silicone raw material is produced.

"Soils" mean contaminants that are removed from the part or parts being cleaned. Soils include, but are not limited to, grease, oils, waxes, metal chips, carbon deposits, fluxes, and tars.

"Solvent" means any liquid containing any reactive organic compound or any toxic air contaminant, which is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent, drying agent, preservative, or other similar uses.

"Solvent/Air Interface" means, for a vapor cleaning machine, the location of contact between the concentrated solvent vapor layer and the air. This location of contact is defined as the mid-line height of the primary condenser coils. For a cold cleaning machine, it is the location of contact between the liquid solvent and the air.

"Solvent/Air Interface Area" means; for a vapor cleaning machine, the surface area of the solvent vapor zone that is exposed to the air; for an in-line cleaning machine, it is the total surface area of all the sumps; for a cold cleaning machine, it is the surface area of the liquid solvent that is exposed to the air, except for remote reservoir cleaning machines, in which case it is the area of the drain.

"Solvent Cleaning" means any activity, operation, or process (including, but not limited to, surface preparation, cleanup, or wipe cleaning) performed outside of a solvent cleaning machine, that uses solvent to remove uncured adhesives, uncured coatings, uncured inks, uncured polyester resin material, uncured sealant, or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment, and general work areas. Cleaning spray equipment used for the application of coating, adhesive, ink, polyester resin material, or sealant is also considered to be solvent cleaning irrespective of the spray material being cured.

"Solvent Cleaning Machine" means any device or piece of equipment that uses solvent liquid or vapor to remove soils, moisture, or other contaminants from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch cold, batch vapor, in-line cold, in-line vapor, remote reservoir, and gas-path solvent cleaners. Buckets, pails, and beakers with capacities of 3.785 liters (1.00 gallon) or less are not considered solvent cleaning machines. However, the use of such a container or

similar containers (e.g., hand-held spray bottles) with a liquid solvent for cleaning is considered to be solvent cleaning. Any device or piece of equipment used exclusively for stripping shall not be considered to be a solvent cleaning machine.

"Solvent Container" means that part of the solvent cleaning machine that is intended to hold the cleaning solvent.

"Solvent Vapor Zone" means; for a vapor cleaning machine, the area that extends from the liquid solvent surface to the level that solvent vapor is condensed. This condensation level is defined as the midline height of the primary condenser coils.

"Space Vehicle" means a vehicle designed to travel beyond the earth's atmosphere.

"Space Vehicle Component" means any raw material, partial or completed fabricated part, assembly of parts, or completed unit of any space vehicle, including mockups and prototypes.

"Spray Pump Control Switch" means a safety switch that prevents the spray pump from operating if the vapor level falls below the design operating level.

"Sump" means the part of a solvent cleaning machine where the liquid solvent is located.

"Sump Heater Coils" mean the heating system on a cleaning machine that uses steam, electricity, or hot water to heat or boil the liquid solvent.

"Superheated Vapor System" means a system that heats the solvent vapor, either passively or actively, to a temperature above the solvent's initial boiling point. Parts are held in the superheated vapor before exiting the machine to evaporate the liquid solvent on them. Hot vapor recycle is an example of a superheated vapor system.

"Superheated Vapor Zone" means any region located within the vapor zone of a vapor cleaning machine whereby solvent vapors are heated above the solvent's initial boiling point.

"Ultrasonics" means enhancement of the cleaning process by agitation of liquid solvents with high frequency sound wave vibrations.

"Vapor Cleaning Machine" means a batch or in-line solvent cleaning machine that boils liquid solvent generating solvent vapor that is used as a part of the cleaning or drying cycle.

"Waste Solvent Residue" means sludge that may contain dirt, oil, metal particles, and/or other undesirable waste products concentrated after heat distillation of the waste solvent either in the solvent cleaning machine itself or after distillation in a separate still.

"Water Layer" means a layer of water that floats above the denser solvent and provides control of solvent emissions. In many cases, the solvent used in batch cold cleaning machines is sold containing the appropriate amount of water to create a water cover.

"Workload" means the objects put in a solvent cleaning machine for the purpose of removing oil, grease, soil, coating, dirt, moisture, or other undesirable matter from the surface of the objects.

"Workload Area" means:

(1) The plane geometric surface area of the top of the submerged parts basket, or
(2) The combined plane geometric surface area(s) displaced by the submerged workload, if no basket is used.

D. General Operating Requirements. Any person who owns, operates, or uses any solvent cleaning machine or performs any solvent cleaning shall ensure such operation conforms to the following requirements:

1. All solvent, including waste solvent and waste solvent residue, and waste solvent cleaning materials such as cloth, paper, etc. shall be stored or disposed of in nonabsorbent and nonleaking containers equipped with tight-fitting covers. The covers shall be in place unless adding material to or removing material from the containers, the containers are empty, or doing maintenance/inspection of the containers. After distillation recovery of waste solvent, solvent residues shall not contain more than 20 percent of reactive organic compound by weight.

2. The solvent cleaning machine, ventilation system, and/or emission control equipment shall be installed, operated, and maintained consistent with the manufacturer's specifications.

3. The cleaning of porous or absorbent materials, such as cloth, leather, wood, or rope, is prohibited. This provision shall not apply to paper gaskets, paper filters, and medical devices.

4. All containers holding solvent shall be free of liquid leaks. Solvent cleaning machine equipment, such as covers, pumps, water separators, steam traps, or distillation units shall not have any liquid leaks, visible tears, holes, or cracks. Any such liquid leak, visible tear, hole, or crack that is detected shall be repaired within one day from discovery, or the solvent cleaning machine shall be drained of all solvent, consistent with Section D.12 provisions, and shut down until replaced or repaired. Solvent cleaning machines shall not be operated when leaking.

5. Covers and other closure devices (e.g., valves or drain plugs) designed to reduce solvent evaporation shall not be removed or opened except to process work or to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers or other closure devices. Solvent cleaning machines shall not be operated when performing maintenance or repairs.

6. For solvent cleaning machine operations other than gas-path solvent cleaners and continuous web cleaning machines, solvent carry-out shall be minimized by the following methods, as applicable:

    a. Except for remote reservoir cold cleaning machines, the workload shall be racked.

    b. Parts having cavities, holes, or blind holes shall be tipped or rotated before being removed from the solvent cleaning machine such that the solvent in the cavities, holes, or blind holes is returned to the solvent container.

    c. The workload shall be drained within the freeboard area so that the drained solvent is returned to the solvent container.

    d. For cold solvent cleaning, parts shall be drained immediately after cleaning, until one of the following conditions exists:

        1) At least 15 seconds have elapsed; or

        2) Dripping of solvent ceases; or

        3) The parts become visibly dry.

    e. For automated parts handling systems, the workload shall be moved in and out of the solvent cleaning machine at less than 3.4 meters per minute (11.2 feet per minute).

7. For solvent cleaning machine operations other than gas-path solvent cleaners and continuous web cleaning machines, solvent flow shall be directed downward to avoid turbulence at the solvent/air

interface and to prevent liquid solvent from splashing outside of the solvent cleaning machine. If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard area of the solvent cleaning machine.

8. For solvent cleaning machine operations other than gas-path solvent cleaners, solvent flow shall not be used in a manner such that liquid solvent splashes outside the container.

9. Solvent shall not be atomized unless it is vented to an emission control system that meets the requirements of Section N.

10. Any solvent spills shall be wiped up immediately and the used absorbent material (e.g., cloth, paper, sand, sawdust, etc.) shall be stored in closed containers that are handled in accordance with Section D.1.

11. Solvent levels shall not exceed the solvent cleaning machine's fill line.

12. Draining or filling solvent containers shall be performed at a level lower than the liquid solvent surface.

13. When using a ventilation fan, it shall not be positioned in such a way as to direct air flow near a solvent cleaning machine opening.

E. Additional Operating Requirements for Batch Vapor Cleaning Machines and In-Line Vapor Cleaning Machines. Any person who owns, operates, or uses any batch vapor cleaning machine or any in-line vapor cleaning machine shall ensure the equipment operation conforms to the following requirements:

1. Except to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers:

   a. Idling mode covers shall be closed or in place when the equipment is in an idling mode.

   b. Downtime mode covers shall be closed or in place when the equipment is in a downtime mode.

2. When starting the solvent cleaning machine, the primary condenser shall be turned on before the sump heater.

3. When shutting down the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

4. The workload shall be cleaned in the vapor zone for at least 30 seconds or until condensation ceases.

5. Parts shall be allowed to dry within the solvent cleaning machine until the exterior surface of the parts become visually dry.

6. Solvent spray shall be kept at least 10 centimeters (3.94 inches) below the solvent/air interface.

7. The workload area shall not occupy more than half of the solvent/air interface area of the solvent cleaning machine.

8. For solvent cleaning machines equipped with water separators, water shall not be visibly detectable in the solvent phase exiting the water separator, nor shall solvent be visibly detectable in the aqueous phase leaving the separator.

9. If equipped with a superheated vapor zone:

   a. The manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system shall be followed.

   b. Parts and parts baskets shall remain in the vapor zone for at least the minimum proper dwell time.

   c. The temperature within the superheated vapor zone shall be at least 10 degrees Fahrenheit above the initial boiling point of the solvent being used.

F. Additional Operating Requirements for Gas-Path Solvent Cleaners. Any person who owns, operates, or uses any gas-path solvent cleaner shall ensure the equipment operation conforms to the following requirements:

1. Cleaned parts or equipment shall be drained until dripping ceases or 15 seconds have elapsed.

2. The cover of the solvent container(s), reservoir(s) and opening(s) of a solvent collection system shall be closed at all times except to process work or to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers or other closure devices.

G. General Equipment Requirements for Solvent Cleaning Machines. Any person who owns, operates, or uses any solvent cleaning machine shall ensure that it is equipped with the following:

1. A container for the solvent.

2. Except for remote reservoir cold cleaning machines using low volatility solvents, an apparatus or cover(s) to completely cover the solvent container when not processing work.

3. Except for gas-path solvent cleaners using a solvent with a reactive organic compound content of 50 grams per liter of material or less, an apparatus or a device for draining cleaned parts such that the drained solvent or drag-out is returned to the solvent container.

4. A list of the applicable operating requirements. At a minimum, the list shall include the applicable operating requirements contained in Sections D, E, and F. The list of operating requirements shall be legible and conspicuously posted or maintained on or near the equipment in such a manner that it is conveniently available to the operator for reference purposes.

5. Where solvent agitation is used, equipment that achieves agitation by use of pump recirculation, mechanical mixing (a mixer), or ultrasonics. Gas or air agitation shall not be used. When a pump-agitated solvent bath is used, the pump agitator shall be designed to produce a rolling motion of the solvent without any observable splashing against tank walls or parts being cleaned.

6. When employing solvent flow, a flexible hose or flushing device that produces only a continuous fluid stream. An atomized or shower type spray shall not be used unless it is used in an in-line or enclosed solvent cleaning machine where the spray is conducted in a totally confined space that is sealed from the atmosphere.

7. Where a hood, enclosure, lip exhaust, or a lip exhaust connected to a hood or enclosure is employed, a blower or fan such that the air ventilation rate shall not exceed 20 cubic meters per minute per square meter (65.6 cubic feet per minute per square feet) of solvent/air interface area, unless necessary to meet a National Institute for Occupational Safety and Health standard.

8. When a lip exhaust is installed or added after July 17, 1997, an emission control system that meets the requirements of Section N.

9. A workroom having an average draft rate, as measured parallel to the plane of the solvent cleaning machine opening, not exceeding 9.1 meters per minute (30 feet per minute), unless necessary to meet a National Institute for Occupational Safety and Health standard.

10. When employing an automated parts handling system, equipment such that the speed of the parts shall not exceed 3.4 meters per minute (11.2 feet per minute).

H. Additional Equipment Requirements for Remote Reservoir Cold Cleaning Machines. Any person who owns, operates, or uses any remote reservoir cold cleaning machine shall ensure that it is equipped with the following:

1. A sink or work area that is sloped sufficiently towards the drain to prevent pooling of solvent.

2. A single drain hole, not larger than 100 square centimeters (15.5 square inches) in area, for the solvent to flow from the sink into the enclosed reservoir.

3. Except when using low volatility solvents, a cover or a device, such as a valve or a drain plug, to prevent or minimize solvent vapor emissions from the solvent container when not processing work or performing monitoring, inspections, maintenance, or repairs that require the removal of the cover or device.

4. A freeboard height of 6 inches or higher.

5. When the solvent is heated above 50 degrees Celsius (122 degrees Fahrenheit), or it is agitated, or the solvent is a high volatility solvent, dimensions such that the freeboard ratio is 0.75 or greater.

6. In lieu of the freeboard height required by Section H.4 or the freeboard ratio required by Section H.5, one of the following requirements may be met:

   a. A water layer at a minimum thickness of 2.5 centimeters (1.0 inch) on the surface of the solvent within the cleaning machine shall be used, or

   b. An emission control system that meets the requirements of Section N shall be used.

7. Effective September 20, 2011, except when using an emission control system that meets the requirements of Section N, solvent that contains 50 grams of reactive organic compound per liter of material or less.

I. Additional Equipment Requirements for Batch Cold Cleaning Machines. Any person who owns, operates, or uses any batch cold cleaning machine other than a remote reservoir cold cleaning machine shall ensure that it is equipped with the following:

1. When using a high volatility solvent, a cover that is a sliding, rolling, or guillotine type that is designed to easily open and close. If a mechanized batch cold cleaning machine (e.g., a manually loaded or semi-continuously loaded Ferris wheel or cross-rod solvent cleaning machine) is used with a high volatility solvent, the unit shall be equipped with a downtime mode cover.

2. If using a high volatility solvent, the drainage apparatus or device required by Section G.3 shall be internal so that the cleaned parts are within the solvent cleaning machine and under the cover while draining. The drainage apparatus or device may be external where the internal type cannot fit into the cleaning system provided the drained solvent is returned to the solvent container.

3. When using a low volatility solvent that is not agitated, a freeboard height of 6 inches or higher or dimensions such that the freeboard ratio is 0.5 or greater.

4. When the solvent is heated above 50 degrees Celsius (122 degrees Fahrenheit), or it is agitated, or the solvent is a high volatility solvent, dimensions such that the freeboard ratio is 0.75 or greater.

5. In lieu of the freeboard height or freeboard ratio required by Section I.3 or the freeboard ratio required by Section I.4, one of the following requirements may be met:

   a. A water layer at a minimum thickness of 2.5 centimeters (1.0 inch) on the surface of the solvent within the cleaning machine shall be used, or

   b. An emission control system shall be used that meets the requirements of Section N shall be used.

6. A conspicuous mark denoting the maximum allowable solvent level conforming to the applicable freeboard requirements. This requirement does not apply if employing a water layer or an emission control system per Section I.5.

7. Effective September 20, 2011, except when using an emission control system that meets the requirements of Section N, solvent that contains 50 grams of reactive organic compound per liter of material or less.

J. Additional Equipment Requirements for Batch Vapor Cleaning Machines. Any person who owns, operates, or uses any batch vapor cleaning machine shall ensure that it is equipped with the following:

1. For open-top vapor cleaning machines, a cover that is a sliding, rolling, or guillotine type that is designed to easily open and close without disturbing the vapor zone. This requirement does not apply to open-top vapor cleaning machines equipped with top enclosures, provided:

   a. the operator only opens the enclosure cover(s) or door(s) when the condenser is operative or when the solvent cleaning machine is shut down, and

   b. the solvent cleaning machine solvent/air interface area is less than 1 square meter (10.8 square feet), and

   c. the solvent cleaning machine cover is designed such that it can be opened and closed easily without disturbing the vapor zone.

2. For mechanized batch vapor cleaning machines (e.g., a manually-loaded or semi-continuously-loaded Ferris wheel or cross-rod solvent cleaning machine), idling and downtime mode covers.

3. A primary condenser situated above the boiling solvent.

4. A condenser flow switch that automatically shuts off the sump heater if the condenser coolant stops circulating or becomes warmer than its designed operating temperature.

5. A vapor level control device that automatically shuts off the sump heater if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

6. For solvent cleaning machines with solvent flow, a device such as a spray pump control switch that prevents the solvent flow pump operation unless the solvent vapor level is at the designed operating level.

7. A device that automatically shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

8. Dimensions such that the freeboard ratio is 0.75 or greater. Effective September 20, 2011, the unit shall have dimensions such that the freeboard ratio is 1.0 or greater.

9. For solvent cleaning machines with a solvent/air interface area of 1 square meter (10.8 square feet) or greater:

    a. A freeboard refrigeration device for which the chilled air blanket temperature (expressed in degrees Fahrenheit) at the coldest point on the vertical axis in the center of the air blanket shall be no greater than 30 percent of the initial boiling point (expressed in degrees Fahrenheit) of the solvent used or no greater than 40 degrees Fahrenheit. If the chiller operates below 32 degrees Fahrenheit, it shall be equipped with an automatic defrost; or

    b. An enclosed design in which the cover or door opens only when the dry part is actually entering or exiting the solvent cleaning machine.

10. In lieu of the freeboard ratio required by Section J.8 or the freeboard chiller/enclosed design required by Section J.9, an emission control system that meets the requirements of Section N may be used.

11. Effective September 20, 2011, except when an emission control system that meets the requirements of Section N is employed, when using solvent containing in excess of 50 grams of reactive organic compound per liter of material:

    a. An automated parts handling system;

    b. A circumferential trough;

    c. A water separator (not required for solvents that form azeotropes with water);

    d. A freeboard refrigeration device that is operated such that the chilled air blanket temperature, measured at the center of the air blanket, is no greater than 40 percent of the initial boiling point of the solvent, in degrees Fahrenheit, for solvents that do not form azeotropes with water, or 50 percent of the initial boiling point, in degrees Fahrenheit, for solvents that form azeotropes with water; and

    e. A superheated vapor zone where parts remain in the vapor zone for at least the minimum dwell time, as specified by the manufacturer. The temperature within the superheated vapor zone shall be at least 10 degrees Fahrenheit above the initial boiling point of the solvent being used.

K. Additional Equipment Requirements for In-Line Cold Cleaning Machines. Any person who owns, operates, or uses any batch in-line cold cleaning machine shall ensure that it is equipped with the following:

1. A rotating basket, tumbling basket, drying tunnel, or other means that prevents cleaned parts from carrying out solvent liquid or vapor.

2. Openings such that the average clearance between workload material and the edges of the solvent cleaning machine entrance and exit openings shall be less than 10 centimeters (3.94 inches) or less than 10 percent of the opening width, whichever is less.

3. Downtime mode covers. A continuous web part that completely occupies an entry and exit port when the machine is idle is considered to meet this requirement.

4. Dimensions such that the freeboard ratio is 0.75 or greater.

5. In lieu of the freeboard ratio required by Section K.4, an emission control system that meets the requirements of Section N may be used.

6. Effective September 20, 2011, except when using an emission control system that meets the requirements of Section N, solvent that contains 50 grams of reactive organic compound per liter of material or less.

L. Additional Equipment Requirements for In-Line Vapor Cleaning Machines. Any person who owns, operates, or uses any in-line vapor cleaning machine shall ensure that it is equipped with the following:

1. A rotating basket, tumbling basket, drying tunnel, or other means that prevents cleaned parts from carrying out solvent liquid or vapor.

2. Openings such that the average clearance between workload material and the edges of the solvent cleaning machine entrance and exit openings shall be less than 10 centimeters (3.94 inches) or less than 10 percent of the opening width, whichever is less.

3. Idling and downtime mode covers. A continuous web part that completely occupies an entry and exit port when the machine is idle is considered to meet this requirement.

4. A primary condenser situated above the boiling solvent.

5. A condenser flow switch that automatically shuts off the sump heater if the condenser coolant stops circulating or becomes warmer than its designed operating temperature.

6. A vapor level control device that automatically shuts off the sump heater if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

7. For solvent cleaning machines with solvent flow, a device such as a spray pump control switch that prevents the solvent flow pump operation unless the solvent vapor level is at the designed operating level.

8. A device that automatically shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

9. Dimensions such that the freeboard ratio is 0.75 or greater. Effective September 20, 2011, the unit shall have dimensions such that the freeboard ratio is 1.0 or greater.

10. In lieu of the freeboard ratio required by Section L.9, one of the following may be met:

    a. A freeboard refrigeration device for which the chilled air blanket temperature (expressed in degrees Fahrenheit) at the coldest point on the vertical axis in the center of the air blanket shall be no greater than 30 percent of the initial boiling point (expressed in degrees Fahrenheit) of the solvent used or no greater than 40 degrees Fahrenheit. If the chiller operates below 32 degrees Fahrenheit, it shall be equipped with an automatic defrost; or

    b. An emission control system that meets the requirements of Section N shall be used.

11. Effective September 20, 2011, except when an emission control system that meets the requirements of Section N is employed, when using solvent containing in excess of 50 grams of reactive organic compound per liter of material:

    a. A circumferential trough;

    b. A water separator (not required for solvents that form azeotropes with water);

c. A freeboard refrigeration device that is operated such that the chilled air blanket temperature, measured at the center of the air blanket, is no greater than 40 percent of the initial boiling point of the solvent, in degrees Fahrenheit, for solvents that do not form azeotropes with water, or 50 percent of the initial boiling point, in degrees Fahrenheit, for solvents that form azeotropes with water; and

d. A superheated vapor zone where parts remain in the vapor zone for at least the minimum dwell time, as specified by the manufacturer. The temperature within the superheated vapor zone shall be at least 10 degrees Fahrenheit above the initial boiling point of the solvent being used.

M. Requirements - Solvent Cleaning.

Section M requirements apply to any person performing solvent cleaning, including, but not limited to, use of wipe cleaning cloths, cotton swabs, dabber bottles, hand-held spray bottles, squirt bottles, aerosol products, and the cleaning of application equipment. The following requirements become effective September 20, 2011 and are in addition to the general operating requirements specified in Section D.

1. **Solvent Requirements.** Except when using an emission control system that meets the requirements of Section N, no person shall use any solvent to perform solvent cleaning which exceeds the applicable grams of reactive organic compound per liter of material limit specified in Table 1.

Table 1: Reactive Organic Compound Content Limits for Solvent Cleaning

SOLVENT CLEANING ACTIVITY	ROC Limit, grams of ROC per liter of material (pounds of ROC per gallon[a])
(a) Product Cleaning During Manufacturing Processes and Surface Preparation for Coating Application:	
(i) General	50 (0.42)
(ii) Electrical Apparatus Components & Electronic Components	900 (7.51)
(iii) Medical Devices & Pharmaceuticals	900 (7.51)
(iv) Silicone Manufacturing	900 (7.51)
(b) Repair Cleaning and Maintenance Cleaning:	
(i) General	50 (0.42)
(ii) Electrical Apparatus Components & Electronic Components	900 (7.51)
(iii) Medical Devices & Pharmaceuticals:	
(I) Tools, Equipment, & Machinery	900 (7.51)
(II) General Work Surfaces	900 (7.51)

[a] English units are provided for information only.

SOLVENT CLEANING ACTIVITY	ROC Limit, grams of ROC per liter of material (pounds of ROC per gallon[a])
(iv) Silicone Manufacturing	900 (7.51)
(c) Cleaning of Coatings Application Equipment	950 (7.93)
(d) Cleaning of the Following Items and Equipment and their Components: (i) Aerospace Vehicles; (ii) Aerospace Vehicle Payloads and Satellites; (iii) Aerospace Vehicle, Aerospace Vehicle Payload, and Satellite: (I) Transport Equipment (e.g., railcars, trucks, trailers, forklifts, and containers), and (II) Support Processing Equipment (e.g., clean rooms, tools, payload fairing fixtures, alignment jigs, fuel and oxidizer loading carts and associated transfer lines).	900 (7.51)

2. **Cleaning Devices and Methods.** Except for solvent cleaning of spray application equipment, any person performing solvent cleaning with a solvent containing more than 50 grams per liter of material shall use one or more of the following cleaning devices or methods:

   a. Wipe cleaning where solvent is dispensed to wipe cleaning materials from containers that are kept closed to prevent evaporation, except while dispensing solvent or replenishing the solvent supply;

   b. Application of solvent from hand-held spray bottles, squirt bottles, or other closed containers with a capacity of one liter or less; or

   c. Non-atomized solvent flow, dip, or flush method where pooling on surfaces being cleaned is prevented or drained, and all solvent runoff is collected in a manner that enables solvent recovery or disposal. The collection system shall be kept closed to prevent evaporation except while collecting solvent runoff or emptying the collection system.

3. **Solvent Cleaning of Spray Application Equipment.** Any person cleaning spray application equipment with a solvent containing more than 50 grams of reactive organic compound per liter of material shall use an enclosed system, or equipment that is proven to the satisfaction of the Control Officer to be equally effective as an enclosed system at controlling emissions. If an enclosed system is used, it shall totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures, and it shall be used according to the manufacturer's recommendations and be closed when not in use.

N. Emission Control System Requirements. Any person who owns, operates, or uses any emission control system required by Sections D.9, G.8, or T.2.b.4) or as an alternative compliance method as provided for in this rule shall ensure that the following requirements are met:

1. The overall efficiency (the capture system efficiency multiplied by the emission control device efficiency) of the total system shall not be less than 85 percent by weight in reducing total reactive organic compound and toxic air contaminant emissions.

2. When using a carbon adsorber, the system exhaust shall be no more than 25 parts per million of reactive organic compound by volume, calculated as carbon, over a complete adsorption cycle,

3. The emission collection system shall have a ventilation rate between 15 to 20 cubic meters per minute per square meter of solvent/air interface area (49.2 to 65.6 cubic feet per minute per square feet of solvent air interface area), unless otherwise required to meet a National Institute for Occupational Safety and Health standard.

4. An application for installation of the emission control equipment is submitted and the Control Officer grants an Authority to Construct for the equipment.

5. An initial source test is accomplished by September 20, 2011 or a later deadline established in an Authority to Construct to demonstrate compliance with the overall efficiency of the total system and/or the 25 parts per million reactive organic compound by volume limits of this rule.

6. Compliance through the use of an emission control system will not result in reactive organic compound emissions in excess of the reactive organic compound emissions which would result from compliance with Sections H.7, I.7, K.6, or M.1.

O. Alternative Operating and Equipment Requirements for an Airless Solvent Cleaning Machine or an Air-Tight Solvent Cleaning Machine. In lieu of meeting the requirements of Sections E through L, any person may use an airless solvent cleaning machine or air-tight solvent cleaning machine provided all of the following requirements are met:

1. The equipment is operated in accordance with the manufacturer's specifications and operated with a door or other pressure sealing apparatus that is in place during all cleaning and drying cycles.

2. No pressure relief device shall allow liquid solvent to drain out.

3. A differential pressure gauge shall be installed to indicate the sealed chamber pressure.

4. A list of operating requirements shall be legible and conspicuously posted or maintained on or near the equipment in such a manner that it is conveniently available to the operator for reference purposes.

P. Test Methods.

Any person who owns, operates, or uses any solvent cleaning machine or performs any solvent cleaning shall comply with the following test methods:

1. The reactive organic compound content of solvents shall be measured by the Environmental Protection Agency Reference Method 24 (40 CFR, Part 60, Appendix A-7).

2. The initial boiling point of solvents shall be determined by ASTM D 1078-05, "Standard Test Method for Distillation Range of Volatile Organic Liquids," ASTM International.

3. The capture system efficiency shall be determined in accordance with the Environmental Protection Agency method described in 40 CFR, §52.741(a)(4)(iii) when the emission control system is used for reducing emissions of reactive organic compounds. For emission control systems handling compounds that are toxic air contaminants but not reactive organic compounds, the capture system efficiency shall be determined by using the same aforementioned method

modified in a manner approved by the Control Officer to quantify the mass of liquid or gaseous reactive organic compounds and/or toxic air contaminants.

4. The emission control device efficiency shall be determined pursuant to the Environmental Protection Agency method described in 40 CFR, §52.741(a)(4)(iv) and 40 CFR, §52.741(a)(4)(vi), when the emission control system is used for reducing emissions of reactive organic compounds. For emission control systems handling any compound that is a toxic air contaminant but not a reactive organic compound, the emission control device efficiency shall be determined using:

   a. an Environmental Protection Agency approved test method or methods, or

   b. in the case where there is no Environmental Protection Agency approved test method, a Control Officer approved detection method applicable for each target toxics specie.

   c. Several Environmental Protection Agency and/or Control Officer approved test methods on the emission control device efficiency may need to be employed to demonstrate that the emission control system overall efficiency is at least 85 percent by weight in reducing emissions of reactive organic compounds and/or toxic air contaminants. In addition, techniques to convert "parts per million by volume" test method results to 1) "parts per million by weight" and/or 2) "mass emission rates" (e.g., pounds per hour) shall be approved by the Control Officer.

5. The volumetric flowrate shall be determined in accordance with the Environmental Protection Agency Methods 2, 2A, 2C, 2D, 2F, or 2G (40 CFR, Part 60, Appendix A-1).

6. The average workroom draft rate shall be measured parallel to the plane of the solvent cleaning machine opening with a thermistor anemometer with an accuracy within ± 2 feet per minute and a calibration pursuant to the National Institute of Standards and Technology.

7. The identity of components in solvents shall be determined using manufacturer's formulation data or by using ASTM E 168-06, "Standard Practices for General Techniques of Infrared Quantitative Analysis," ASTM International, ASTM E 169-04, "Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis," ASTM International, or ASTM E 260-96 (2006), "Standard Practice for Packed Column Gas Chromatography," ASTM International.

8. Emissions of reactive organic compounds from the exhaust of an emission control system shall be measured by the Environmental Protection Agency Method 18 (40 CFR, Part 60, Appendix A-7), with gas chromatography-flame ionization detection speciation analysis for C1, C2, C3, C4, C5, C6+ species. Alternatively, the Environmental Protection Agency Method 25 or 25A in combination with Method 18 may be used.

Q. Operation and Maintenance Plan. Any person proposing to use an emission control device to comply with this rule pursuant to Section N shall submit, with the Authority to Construct application, an emission control device Operation and Maintenance Plan to the Control Officer for approval. The Operation and Maintenance Plan shall specify:

1. operation and maintenance procedures of emissions-producing operation, and

2. which records shall be kept to document these operation and maintenance procedures.

3. In addition, these records shall comply with the requirements of Section R.1.c and R.3. The Operation and Maintenance Plan shall be implemented upon approval of the Control Officer.

R. Recordkeeping Requirements.

1. Any person who owns, operates, or uses a solvent cleaning machine or performs solvent cleaning that is subject to this rule shall comply with the following requirements:

    a. Record and maintain the following information:

        1) Brand name, stock identification number, and generic product class for each solvent used during the month at the stationary source.

        2) Material safety data sheets for each material listed in response to Section R.1.a.1).

        3) Purchase records for each material listed in response to Section R.1.a.1).

    b. Record the following information for the stationary source:

        1) On a monthly basis, the total monthly volume (gallons) usage and reactive organic compound content (grams per liter or pounds per gallon of reactive organic compound) for each material listed in response to Section R.1.a.1).

        2) Records confirming compliance with the acceptable disposal methods listed in Section D.1, each time waste solvent or waste solvent residue is removed from the stationary source for disposal.

        3) For solvent cleaning, the type of cleaning activity for each solvent used at the stationary source in accordance with the cleaning categories specified in Table 1 of this rule.

        4) For each solvent cleaning machine:

            i. Type of solvent cleaning machine.

            ii. Brand name of each solvent used in the solvent cleaning machine and the reactive organic compound content of each solvent, as used.

            iii. The solvent(s) initial boiling point.

        5) When the solvent used is a mixture of different materials that are blended by the operator, the mix ratio of the batch shall be recorded and the reactive organic compound content of the batch shall be calculated and recorded in order to determine compliance with the specified limits of reactive organic compound content, as applied.

    c. If using an emission control system pursuant to Section N as a means of complying with this rule, the person shall maintain such records as required by the Operation and Maintenance Plan in Section Q on a daily basis. Key operating parameters and other information necessary to verify compliance with the required overall efficiency of the total system, as specified in Section N.1, shall be recorded. These parameters shall include, but not be limited to:

        1) Hours of operation;

        2) All maintenance work that requires the emission control system to be shut down;

3) All information needed to demonstrate continuous compliance with Section N, such as temperatures, pressures, and/or flow rates.

2. In addition to the records required by Section R.1, any person claiming the Section B.9 exemption or the Section B.15 exemption, shall maintain records in order to demonstrate compliance with the solvent usage rate aggregate limits. For Section B.9 exemption claims, daily records on a facility basis shall be maintained. For Section B.15 exemption claims, monthly and calendar year total records on a stationary source basis shall be maintained.
3. Maintain the records kept pursuant to this rule on site for at least 3 years. Thereafter, maintain such records either on site or readily available for expeditious inspection and review for an additional 2 years.

S. Reporting Requirements

Any person holding a permit for a solvent cleaning machine or solvent cleaning subject to the requirements of this rule shall submit an annual report to the District. At a minimum, the annual report shall contain the monthly records required by Section R.1.b.1), the annual totals based on each of the solvent's monthly data, the name and address of the Permittee, and the Permit to Operate number that the solvent cleaning machine and/or solvent cleaning is subject to. The report shall be due March 1 for the previous calendar year.

T. Compliance Schedule

Any person who owns, operates, or uses any solvent cleaning machine or performs any solvent cleaning subject to this rule shall meet the following compliance schedule:

1. New solvent cleaning machines and solvent cleaning operations:

   Commencing September 20, 2010, any new solvent cleaning machine shall comply with this rule the first time it is operated in the District. Also commencing September 20, 2010, any new solvent cleaning shall comply with this rule the first time it is performed in the District.

2. Existing solvent cleaning machines:

   a. For any solvent cleaning machine previously subject to the Rule 321 adopted on September 18, 1997, commencing September 20, 2010, the owner or operator shall ensure that the equipment complies with the applicable provisions of Rule 321. The provisions in Sections H.7, I.7, J.8, J.11, K.6, L.9, and L.11 have an effective date of September 20, 2011.

   b. For any solvent cleaning machine previously exempt from the September 18, 1997 amended Rule 321 that lost its exemption by the adoption of amended Rules 102 (Definitions), 202 (Exemptions to Rule 201), and/or Rule 321 on September 20, 2010, the owner or operator of such equipment shall comply with the following:

      1) October 20, 2010, be in full compliance with the applicable operating requirements of Sections D, E, and F.

      2) By March 19, 2011, be in full compliance with the applicable recordkeeping and reporting provisions of Sections R and S.

      3) By September 20, 2011, be in full compliance with the applicable equipment requirements of Sections G, H, I, J, K, L, and N.

      4) Any lip exhaust installed after September 20, 2010 shall be vented to an emission control system that meets the requirements of Section N at the time of installation, notwithstanding the date in Sections G.8 and T.2.b.3.

3. Existing solvent cleaning operations:

The owner or operator of any facility performing solvent cleaning as of September 20, 2010 and subject to the requirements of this rule shall comply with the following:

a. By October 20, 2010, be in full compliance with the applicable operating requirements of Section D.

b. By March 19, 2011, be in full compliance with the applicable recordkeeping and reporting provisions of Sections R and S.

c. By September 20, 2011, be in full compliance with the solvent cleaning requirements of Rule Section M.

SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 322. METAL SURFACE COATING THINNER AND REDUCER.

(Adopted 2/24/1975, readopted 10/23/1978)

The composition of the organics in all metal surface coating thinners and reducers that are used in the District shall not be photochemically reactive.

RULE 323. ARCHITECTURAL COATINGS. (Adopted 10/18/1971, revised 2/24/1975, 8/22/1977, readopted 10/23/1978, revised 6/11/1979, 3/11/1985, 2/20/1990, 3/16/1995, 7/18/1996, and 11/15/2001)

A. Applicability

This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures any architectural coating for use within the District.

B. Exemptions

The requirements of this rule shall not apply to:

1. Architectural coatings sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging;

2. Architectural coatings sold in containers with a volume of one liter (1.057 quart) or less; or

3. Any aerosol coating product.

C. Definitions

1. **"Adhesive"** means any chemical substance applied to bond two surfaces together other than by mechanical means.

2. **"Aerosol coating product"** means a pressurized coating product containing pigments or resins that dispenses product ingredients with a propellant, and is packaged in a disposable can for hand-held application, or for application with specialized ground traffic/marking equipment.

3. **"Antenna coating"** means a coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that receive or transmit electromagnetic signals.

4. **"Antifouling coating"** means a coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling coating, the coating must be registered with both the United States Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq*.) and with the California Department of Pesticide Regulation.

5. **"Appurtenances"** means accessories to a stationary structure coated at the site of installation, whether installed or detached, including, but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

6. **"Architectural coatings"** means coatings applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings

for the purposes of this rule.

7. **"Bitumens"** means black or brown coating materials including but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or are residues from the distillation of crude petroleum or of coal.

8. **"Bituminous roof coating"** means a coating that incorporates bitumens and that is labeled and formulated exclusively for roofing.

9. **"Bituminous roof primer"** means a primer that incorporates bitumens and that is labeled and formulated exclusively for roofing.

10. **"Bond breakers"** means coatings labeled and formulated for application between layers of concrete to prevent the freshly poured top layer of concrete from bonding to the layer over which it is poured.

11. **"Clear brushing lacquers"** means clear wood finishes, excluding clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film, that are intended exclusively for application by brush, and that are labeled as specified in Section E.1.c of this Rule.

12. **"Clear wood coatings"** means clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

13. **"Coating"** means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

14. **"Colorant"** means a concentrated pigment dispersion in water, solvent, and/or binder added to an architectural coating after packaging in sale units to produce the desired color.

15. **"Concrete curing compounds"** means coatings labeled and formulated for application to freshly poured concrete to retard the evaporation of water.

16. **"Dry fog coatings "** means coatings labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

17. **"Exempt compound"** means a compounds identified as exempt under the definition of "volatile organic compounds." Exempt compounds content of a coating shall be determined by South Coast Air Quality Management District Method 303-91 (Revised August 1996), incorporated by reference in Section G.5.j of this Rule.

18. **"Faux finishing coating"** means a coating labeled and formulated as a stain or glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.

19. **"Fire-resistive coating"** means an opaque coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials, that has been fire tested and rated by a testing agency approved by building code officials for use in bringing assemblies of structural materials into compliance with federal, state, and local building code requirements. Building code officials must approve the fire-

resistive coating and the testing agency. The fire-resistive coating shall be tested in accordance with American Society of Testing and Materials Designation E 119-98, incorporated by reference in Section G.5.b of this Rule.

20. **"Fire-retardant coatings"** means coatings labeled and formulated to retard ignition and flame spread, that have been fire tested and rated by a testing agency approved by building code officials to bring building and construction materials into compliance with federal, state, and local building code requirements. Building code officials must approve the fire-retardant coating and the testing agency. The fire-retardant coating shall be tested in accordance with American Society of Testing and Materials Designation E 84-99, incorporated by reference in Section G.5.a of this Rule.

21. **"Flat coating"** means a coating not defined under any other definition in this rule that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to American Society of Testing and Materials Designation D 523-89 (1999), incorporated by reference in Section G.5.c of this Rule.

22. **"Floor coating"** means an opaque coating labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces that may be subject to foot traffic.

23. **"Flow coating"** means a coating labeled and formulated exclusively for electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

24. **"Form-release compounds"** means coatings labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

25. **"Graphic arts coatings (sign paints)"** means coatings labeled and formulated for hand-application by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels.

26. **"High-temperature coatings"** means high performance coatings labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 400 degrees Fahrenheit (204 degrees Celsius).

27. **"Industrial maintenance coatings"** means high-performance architectural coatings including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated for application to substrates exposed to one or more of the following extreme environmental conditions, and labeled as specified in Section E.1.d of this Rule:

    a. Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;

    b. Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, chemical mixtures, or solutions;

    c. Repeated exposure to temperatures in excess of 250 degrees Fahrenheit (121 degrees Celsius);

d. Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or,

e. Exterior exposure of metal structures and structural components.

28. **"Lacquers"** means clear or opaque wood coatings, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

29. **"Low solids coating"** A coating containing 0.12 kilogram or less of solids per liter (1.0 pound or less of solids per gallon) of coating material.

30. **"Magnesite cement coatings"** means coatings labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

31. **"Mastic texture coatings"** means coatings labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and applied in a thickness of at least 10 mils (0.010 inch) dry film thickness.

32. **"Metallic pigmented coatings"** means coatings containing at least 48 grams (0.4 pounds per gallon) of elemental metallic pigment per liter of coating as applied when tested in accordance with South Coast Air Quality Management District Method 318-95, incorporated by reference in Section G.5.d of this Rule.

33. **"Multi-color coatings"** means coatings that are packaged in a single container and that exhibit more than one color when applied in a single coat.

34. **"Nonflat coating"** means a coating that is not defined under any other definition in this rule and that registers a gloss of 15 or greater on an 85-degree meter and 5 or greater on a 60-degree meter according to American Society of Testing and Materials Designation D 523-89 (1999), incorporated by reference in Section G.5.c of this Rule.

35. **"Nonflat - high gloss coating"** means a nonflat coating that registers a gloss of 70 or above on a 60-degree meter according to American Society of Testing and Materials Designation D 523-89 (1999), incorporated by reference in Section G.5.c of this Rule.

36. **"Nonindustrial use"** means any use of architectural coatings except in the construction or maintenance of any of the following: facilities used in the manufacturing of goods and commodities; transportation infrastructure, including highways, bridges, airports and railroads; facilities used in mining activities, including petroleum extraction; and utilities infrastructure, including power generation and distribution, and water treatment and distribution systems.

37. **"Post-consumer coating"** means a finished coating that would have been disposed of in a landfill, having completed its usefulness to a consumer, and does not include manufacturing wastes.

38. **"Pre-treatment wash primers"** means primers that contain a minimum of 0.5 percent acid by weight, when tested in accordance with American Society of Testing and Materials Designation D 1613-96, incorporated by reference in Section G.5.e of this Rule, that are labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

39. **"Primers"** means coatings labeled and formulated for application to substrates to provide a firm bond between the substrate and subsequent coats.

40. **"Quick-dry enamels"** means non-flat coatings that are labeled as specified in Section E.1.h and formulated to have the following characteristics:

    a. Shall be capable of being applied directly from the container under normal conditions, normal conditions being ambient temperatures between 60 degrees Fahrenheit and 80 degrees Fahrenheit (16 and 27 degrees Celsius);

    b. When tested in accordance with American Society of Testing and Materials Designation 1640-95, incorporated by reference in Section G.5.f, they shall: set to touch in two hours or less, dry hard in eight hours or less, and be tack free in four hours or less by the mechanical method test;

    c. Has a dried film gloss of 70 or above on a 60-degree meter.

41. **"Quick-dry primers, sealers, and undercoaters"** means primers, sealers and undercoaters that are dry to touch in one half hour and can be recoated in two hours when tested in accordance with American Society of Testing and Materials ASTM 1640-95, incorporated by reference in Section G.5.f of this Rule.

42. **"Recycled coating"** means an architectural coating formulated such that not less than 50 percent of the total weight consists of secondary and post-consumer coating, with not less than 10 percent of the total weight consisting of post-consumer coating.

43. **"Residential"** means areas where people reside or lodge including, but not limited to single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

44. **"Roof coatings"** means non-bituminous coatings labeled and formulated exclusively for application to exterior roofs primarily to prevent penetration of the substrate by water, or to reflect heat and ultraviolet radiation. Metallic pigmented roof coatings that qualify as metallic pigmented coatings shall not be considered to be in this category, but shall be considered to be in the metallic pigmented coatings category.

45. **"Rust preventive coating"** means a coating formulated exclusively for nonindustrial use to prevent the corrosion of metal surfaces and labeled as specified in Section E.1.f of this Rule.

46. **"Sanding sealers"** means clear or semi-transparent wood coatings labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent application of coatings. A sanding sealer that also meets the definition of a lacquer is not included in this category, but is included in the lacquer category.

47. **"Sealers"** means coatings labeled and formulated for application to a substrate to prevent subsequent coatings from being adsorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

48. **"Secondary coating (rework)"** means a fragment of a finished coating or a finished coating from a manufacturing process that has converted resources into a commodity of real economic value, but does not include excess virgin resources of the manufacturing process.

49. **"Shellacs"** means clear or opaque coatings formulated solely with the resinous secretions of the lac beetle (Laccifer lacca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

50. **"Shop application"** means application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

51. **"Solicit"** means to require for use or to specify, by written or oral contract.

52. **"Specialty flats"** means self priming flat products used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; or coat acoustical materials without affecting their acoustical abilities.

53. **"Specialty primer, sealer, and undercoater"** means a coating labeled as specified in Section E.1.g of this Rule, and that is formulated for application to a substrate to seal fire, smoke or water damage; to condition excessively chalky surfaces, or to block stains. An excessively chalky surface is one that is defined as having a chalk rating of four or less as determined by American Society of Testing and Materials Designation D 4214-98, incorporated by reference in Section G.5.g of this Rule.

54. **"Stain"** means a clear, semitransparent, or opaque coating labeled and formulated to change the color of a surface but not to conceal the grain pattern or texture.

55. **"Swimming pool coatings"** means coatings labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals.

56. **"Swimming pool repair and maintenance coatings"** means rubber based coatings labeled and formulated for the repair and maintenance of swimming pools over existing rubber based coatings.

57. **"Temperature-indicator safety coating"** means a coating labeled and formulated as a color-changing indicator coating to monitor the temperature and safety of the substrate, underlying piping, or underlying equipment, and to apply to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

58. **"Tint base"** means an architectural coating to which colorant is added after packaging in sale units to produce a desired color.

59. **"Traffic marking coatings"** means coatings labeled and formulated for marking and striping streets, highways, and other traffic surfaces including, but not limited to curbs, berms, driveways, ~~and~~ parking lots, sidewalks and airport runways.

60. **"Undercoaters"** means coatings labeled and formulated for application to substrates to provide a smooth surface for subsequent coats.

61. **"Varnishes"** means clear or semi-transparent wood coatings, excluding lacquers and shellacs, formulated to dry by chemical reaction on exposure to air. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.

62. **"Volatile organic compound (VOC)"** means any volatile compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:

methane;
methylene chloride (dichloromethane);
1,1,1-trichloroethane (methyl chloroform);
trichlorofluoromethane (CFC-11);
dichlorodifluoromethane (CFC-12);
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
chloropentafluoroethane (CFC-115);
chlorodifluoromethane (HCFC-22);
1,1,1-trifluoro-2,2-dichloroethane (HCFC-123);
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
1,1-dichloro-1-fluoroethane (HCFC-141b);
1-chloro-1,1-difluoroethane (HCFC-142b);
trifluoromethane (HFC-23);
pentafluoroethane (HFC-125);
1,1,2,2-tetrafluoroethane (HFC-134);
1,1,1,2-tetrafluoroethane (HFC-134a);
1,1,1-trifluoroethane (HFC-143a);
1,1-difluoroethane (HFC-152a);
cyclic branched or linear completely methylated siloxanes;
the following classes of perfluorocarbons:
(A) cyclic, branched, or linear, completely fluorinated alkanes;
(B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
(C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
(D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine; and
the following low-reactive organic compounds which have been exempted by the United States Environmental Protection Agency:
acetone;
ethane;
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene);
perchloroethylene; and
methyl acetate.

63. **"VOC content"** means the weight of VOC per volume of coating, calculated according to the procedure specified in Section G.1 of this Rule.

64. **"Waterproofing sealers"** means coatings that are labeled, formulated and applied for the sole purpose of protecting porous substrates by preventing the penetration of water.

65. **"Waterproofing concrete/masonry sealer"** means a clear or pigmented film-forming coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.

66. **"Wood preservative"** means a coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the United States Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136, *et seq.)* and with the California Department of Pesticide Regulation.

D. Standards

1. **VOC Content Limits:** Except as provided in Sections D.2, D.3, D.8, and D.9, no person shall:
   a. manufacture, blend, or repackage for sale within the District;

b. supply, sell, or offer for sale within the District; or

c. solicit for application or apply within the District, any architectural coating with a VOC content in excess of the corresponding limit specified in Table 1, after the specified date in Table 1.

2. **Most Restrictive VOC Limit:** If anywhere on the container of any architectural coating or any sticker or label affixed thereto, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table 1, then the most restrictive volatile organic compound shall apply. This provision does not apply to the representation of the following coatings:

a. Lacquer coatings (including lacquer sanding sealers);

b. Metallic pigmented coatings;

c. Shellacs;

d. Fire-retardant coatings;

e. Pretreatment wash primers;

f. Industrial maintenance coatings;

g. Low-solids coatings;

h. Wood preservatives;

i. High temperature coatings;

j. Temperature-indicator safety coatings;

k. Antenna coatings;

l. Antifouling coatings;

m. Flow coatings;

n. Bituminous roof primers;

o. Specialty primers, sealers, and undercoaters.

3. **Sell-Through of Coatings:**

a. A coating manufactured prior to the effective date specified for that coating in Table 1 may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in Table 1 may be applied at any time, both before and after the specified date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This subsection does not apply to any coating that complies with the future effective January 1, 2003 or January 1, 2004 limits or that does not display the date or date-code required by Section E.1.a of this Rule.

b. A coating included in an approved Averaging Program that does not comply with the specified limit in Table 1 may be sold, supplied, or offered for sale for up to three years after the end of the compliance period specified in the approved Averaging Program. In addition, such a coating may be applied at any time, both during and after the compliance period. This subsection does not apply to any coating that does not display on the container either the statement: "This product is subject to architectural coatings averaging provisions in California", or a substitute symbol specified by the Executive Officer of the California Air Resources Board. This subsection shall remain in effect until January 1, 2008.

4. **Painting Practices:** All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays, or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.

5. **Thinning:** No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in Table 1.

6. **Rust Preventive Coatings:** Effective January 1, 2004, no person shall apply or solicit the application of any rust preventive coating for industrial use, unless such a rust preventive coating complies with the industrial maintenance coating VOC limit specified in Table 1.

7. **Coatings Not Listed in Table 1:** For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table 1, the VOC content limit shall be determined by classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in Section G.5.c and the corresponding flat or nonflat VOC limit shall apply.

8. **Lacquers:** Notwithstanding the provisions of Section D.1 of this Rule, a person or facility may add up to 10 percent by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater than 70 percent and temperature below 65 degrees Fahrenheit, at the time of application, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.

9. **Averaging Compliance Option:** On or after January 1, 2003, in lieu of compliance with the specified limits in Table 1 for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; bituminous roof coatings, rust preventive coatings; stains; waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturer must also comply with the averaging provisions contained in Appendix A, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section and Appendix A shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.

E. Container Labeling Requirements

1. Each manufacturer of any architectural coating subject to this rule shall display the information listed in subsections E.1.a through E.1.h on the coating container (or label) in which the coating is sold or distributed.

a. **Date Code:** The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the California Air Resources Board.

b. **Thinning Recommendations:** A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating be applied without thinning.

c. **VOC Content:** Each container of any coating subject to this rule shall display either the maximum or the actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in Section G.2 of this rule. The equations in Section G.1 shall be used to calculate VOC content.

d. **Industrial Maintenance Coatings:** In addition to the information specified in Sections D.1.a, D.1.b, and D.1.c, each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is sold or distributed one or more of the descriptions listed below:
   i. "For industrial use only."
   ii. "For professional use only."
   iii. "Not for residential use" or "Not intended for residential use."

e. **Clear Brushing Lacquers:** Effective January 1, 2003, the labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed."

f. **Rust Preventive Coatings:** Effective January 1, 2003, the labels of all rust preventive coatings shall prominently display the statement "For Metal Substrates Only."

g. **Specialty Primers, Sealers and Undercoaters:** Effective January 1, 2003, the labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed below:
   i. "For blocking stains."
   ii. "For fire-damaged substrates."
   iii. "For smoke-damaged substrates."
   iv. "For water-damaged substrates."
   v. "For excessively chalky substrates."

h. **Quick-Dry Enamels:** Effective January 1,2003, the labels of all quick-dry enamels shall prominently display the words "Quick-Dry"and the dry-hard time.

i. **Nonflat – High Gloss Coatings:** Effective January 1, 2003, the labels of all nonflat – high gloss coatings shall prominently display the words "High Gloss."

F. Reporting Requirements

1. **Clear Brushing Lacquers:** Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the

Executive Officer of the California Air Resources Board. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.

2. **Rust Preventive Coatings:** Each manufacturer of rust preventive coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the California Air Resources Board. The report shall specify the number of gallons of rust preventive coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.

3. **Specialty Primers, Sealers, and Undercoaters:** Each manufacturer of specialty primers, sealers, and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the California Air Resources Board. The report shall specify the number of gallons of specialty primers, sealers, and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.

4. **Toxic Exempt Compounds:** For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, report to the Executive Officer of the California Air Resources Board the following information for products sold in the State during the preceding year:

   a. the product brand name and a copy of the product label with legible usage instructions;

   b. the product category listed in Table 1 to which the coating belongs;

   c. the total sales in California during the calendar year to the nearest gallon;

   d. the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.

5. **Recycled Coatings:** Manufacturers of recycled coatings must submit a letter to the Executive Officer of the California Air Resources Board certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the California Air Resources Board. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution.

6. **Bituminous Coatings:** Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the California Air Resources Board. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.

G. Compliance Provisions and Test Methods

1. **Calculation of VOC Content:** For the purpose of determining compliance with the VOC content limits in Table 1, the VOC content of a coating shall be determined by using the

procedures described in Section G.1.a or G.1.b, as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured.

a. With the exception of low solids coatings, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water and exempt compounds. Determine the VOC content using equation 1 as follows:

$$\text{VOC Content} = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})} \qquad (1)$$

Where:

VOC Content	= grams of VOC per liter of coating
W_s	= weight of volatiles, in grams
W_w	= weight of water, in grams
W_{ec}	= weight of exempt compounds, in grams
V_m	= volume of coating, in liters
V_w	= volume of water, in liters
V_{ec}	= volume of exempt compounds, in liters

b. For low solids coatings, determine the VOC content in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds. Determine the VOC content using equation 2 as follows:

$$\text{VOC Content}_{ls} = \frac{(W_s - W_w - W_{ec})}{V_m} \qquad (2)$$

Where:

VOC Content_{ls}	= the VOC content of a low solids coating in grams of VOC per liter of coating
W_s	= weight of volatiles, in grams
W_w	= weight of water, in grams
W_{ec}	= weight of exempt compounds, in grams
V_m	= volume of coating, in liters.

2. **VOC Content of Coatings:** To determine the physical properties of a coating in order to perform the calculations in G.1.a and G.1.b, the reference method for VOC content is United States Environmental Protection Agency Method 24, incorporated by reference in Section G.5.k, except as provided in Sections G.3 and G.4. An alternative method to determine the VOC content of coatings is South Coast Air Quality Management District Method 304-91 (revised February 1996) incorporated by reference in Section G.5.k. The exempt compounds content shall be determined by South Coast Air Quality Management District Method 303-91 (Revised August 1996), incorporated by reference in Section G.5.j. To determine the VOC content of a coating, the manufacturer may use United States Environmental Protection Agency Method 24, or an alternative method as provided in Section G.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 results will govern, except when an alternative method is approved as specified in Section G.3. The Control Officer may require the manufacturer to conduct a Method 24 Analysis.

3. **Alternative Test Methods:** Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section G.2, after review and approved in writing by the staffs of the District, the California Air Resources Board and the United States Environmental Protection Agency, may also be used.

4. **Methacrylate Traffic Marking Coatings:** Analysis of methacrylate multicomponent coatings used as traffic coatings shall be conducted according to a modification of United States Environmental Protection Agency USEPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in Section G.5.l. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.

5. **Test Methods:** The following test methods are incorporated by reference herein, and shall be used to test coatings subject to the provisions of this rule:

    a. **Flame Spread Index:** The flame spread index of a fire-retardant coating shall be determined by American Society of Testing and Materials Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials" (see Section C, Fire Retardant Coating).

    b. **Fire Resistance Rating:** The fire resistance rating of a fire-restive coating shall be determined by American Society of Testing and Materials Designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials" (see Section C, Fire-Resistive Coating).

    c. **Gloss Determination:** The gloss of a coating shall be determined by American Society of Testing and Materials Designation D 523-89 (1999), "Standard Test Method for Specular Gloss" (see Section C, Flat Coating, Nonflat Coating, Nonflat – High Gloss Coating, and Quick-Dry Enamel)

    d. **Metal Content of Coating:** The metallic content of a coating shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section C, Metallic Pigmented Coating).

    e. **Acid Content of Coatings:** The acid content of a coating shall be determined by American Society of Testing and Materials Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products" (see Section C, Pre-treatment Wash Primer).

    f. **Drying Times:** The set-to-touch, dry-hard, dry-to-touch, and dry-to-recoat times of a coating shall be determined by American Society of Testing and Materials Designation 1640-95, Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section C, Quick-Dry Enamel and Quick-Dry Primer, Sealer, and Undercoater). The tack-free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of the American Society of Testing and Materials Designation 1640-95.

    g. **Surface Chalkiness:** The chalkiness of a surface shall be determined using American Society of Testing and Materials Designation 4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films" (see Section C, Specialty

Primer, Sealer, and Undercoater).

h. **Exempt Compounds – Siloxanes:** Exempt compounds that are cyclic, branched or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section G by Bay Area Air Quality Management District Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," *BAAQMD Manual of Procedures,* Volume III, adopted November 6, 1996 (see Section C, Volatile Organic Compound, and Section G.2)

i. **Exempt Compounds – Parachlorobenzotrifluoride (PCBTF):** The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section G by Bay Area Air Quality Management District Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," *BAAQMD Manual of Procedures,* Volume III, adopted December 20, 1995 (see Section C, Volatile Organic Compound and Section G.2)

j. **Exempt Compounds:** The content of exempt compounds shall be analyzed by South Coast Air Quality Management District Method 303-91 (revised 1996), "Determination of Exempt Compounds," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section C, Volatile Organic Compounds and Section G.2).

k. **VOC Content of Coatings:** The VOC content of coating shall be determined by United States Environmental Protection Agency Method 24 as it exists in Appendix A of 40 CFR part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings" (see Section G.2).

l. **Alternative VOC Content of Coatings:** The VOC content of coatings may be analyzed either by United States Environmental Protection Agency Method 24 or South Coast Air Quality Management District Method 304-91 (revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples*

m. **Methacrylate Traffic Marking Coatings:** The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedure in 40 CFR part 59, subpart D, Appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings"(September 11, 1998)(see Section G.4).

Table 1

VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS

Limits are expressed in grams of VOC per liter[a] of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

COATING CATEGORY	EFFECTIVE JULY 18, 1996	EFFECTIVE [date of adoption]	EFFECTIVE JANUARY 1, 2003
Flat Coatings	(250)[d]	250	100
Nonflat Coatings	(250)	250	150
Nonflat – High Gloss Coatings	(250)	250	250
Specialty Coatings			
Antenna Coatings	340[e]	530	530
Antifouling Coatings	340[e]	400	400
Bituminous Roof Coatings	300	300	300
Bituminous Roof Primers	350[f]	350	350
Bond Breakers	350	350	350
Clear Wood Coatings:			
? Clear Brushing Lacquers	350	680	680
? Lacquers (including lacquer sanding sealers)	350	550	550
? Sanding Sealers (other than lacquer sanding)	350	350	350
? Varnishes	350	350	350
Concrete Curing Compounds	350	350	350
Dry Fog Coatings	400	400	400
Faux Finishing Coatings	(250)	350	350
Fire Resistive Coatings	350	350	350
Fire-Retardant Coatings:			
? Clear	650	650	650
? Opaque	350	350	350
Floor Coatings	(250)	250	250
Flow Coatings	340[e]	420	420
Form-Release Compounds	250	250	250
Graphic Arts Coatings (Sign Paints)	500	500	500
High Temperature Coatings	420	420	420
Industrial Maintenance Coatings	340	340	250 (1/1/04)[c]
Low Solids Coatings	(250)	120[b]	120[b]
Magnesite Cement Coatings	450	450	450
Mastic Texture Coatings	300	300	300
Metallic Pigmented Coatings	500	500	500
Multi-Color Coatings	420	420	250
Pre-Treatment Wash Primers	420	420	420
Primers, Sealers, and Undercoaters	350	350	200
Quick-Dry Enamels	250	250	250
Quick-Dry Primers, Sealers, and Undercoaters	350	350	200
Recycled Coatings	(250)	250	250
Roof Coatings	300	250[i]	250

COATING CATEGORY	EFFECTIVE JULY 18, 1996	EFFECTIVE [date of adoption]	EFFECTIVE JANUARY 1, 2003
Rust Preventive Coatings	340[e]	400	400
Shellacs: ? Clear ? Opaque	 730 550	 730 550	 730 550
Specialty Primers, Sealers, and Undercoaters	350	350	350
Stains	350	350	250
Swimming Pool Coatings	340	340	340
Swimming Pool Repair and Maintenance Coatings	340	340	340
Temperature-Indicator Safety Coatings	420[g]	550	550
Traffic Marking Coatings	250	150[i]	150
Waterproofing Sealers	400	400	250
Waterproofing Concrete/Masonry Sealers	400[h]	400	400
Wood Preservatives	350	350	350

[a]Conversion factor: one pound VOC per gallon (U.S.) = 119.95 grams VOC per liter.
[b]Units are grams of VOC per liter (pounds of VOC per gallon) of coating, including water and exempt compounds.
[c]Effective date is January 1, 2004.
[d]Table 1 includes new coating categories not in current Rule 323. Parentheses indicate VOC limits that apply due to the 250 grams/liter default provision in current Rule 323.D.1.
[e]Categorized as Industrial Maintenance Coatings.
[f]Categorized as Primers.
[g]Categorized as High Temperature Coatings.
[h]Categorized as Waterproofing Sealers.
[I]National Rule limit currently in effect.

APPENDIX A:
AVERAGING PROVISIONS

A. AVERAGING PROVISIONS

A.1 The manufacturer shall demonstrate that actual emissions from the coatings being averaged are less than or equal to the allowable emissions, for the specified compliance period using the following equation.

$$\sum_{i=1}^{n} GiMi \leq \sum_{i=1}^{n} GiViLi$$

Where:

$\sum_{i=1}^{n} GiMi$ = Actual Emissions

$\sum_{i=1}^{n} GiViLi$ = Allowable Emissions

Gi = Total Gallons of Product (i) subject to Averaging;

Mi = Material VOC Content of Product (i), in pounds per gallon;

$$Mi = \frac{Ws - Ww - Wec}{Vm}$$

Vi = Percent by Volume Solids and VOC in Product (i);

$$Vi = \frac{Vm - Vw - Vec}{Vm}$$

Where: Ws, Ww, Wec, Vm, Vw, and Vec are defined in Section G.1, except that in this Appendix, weights are in pounds and volumes are in gallons.

For Non-Zero VOC Coatings:

$$Vi = \frac{\text{Material VOC (also known as VOC Actual)}}{\text{Coating VOC (also known as VOC Regulatory)}}$$

$$\text{Where : Coating VOC} = \frac{Ws - Ww - Wec}{Vm - Vw - Vec}$$

For Zero VOC Coatings:

Vi = Percent Solids by Volume

Li = Regulatory VOC Content Limit for Product (i), in pounds per gallon (listed in Table 1)

The averaging is limited to coatings that are designated by the manufacturer. Any coating not designated in the Averaging Program shall comply with the VOC limit in Table 1. The manufacturer shall not include any quantity of coatings that it knows or should have known will

not be used in the State, if statewide coatings data are used. If the district-specific coating data are used, the manufacturer shall not include any quantity of coating that it knows or should have known will not be used in the District.

A.1.1 In addition to the requirements specified in Section A.1, manufacturers shall not include in an Averaging Program any coating with a volatile organic compound content in excess of the following volatile organic compound content, for the applicable categories.

Averaging Categories and VOC Ceiling (Maximum VOC Allowed)		
Category	Rule VOC Limit (In effect or effective 1/1/2003 or 1/1/2004)	Averaging VOC Ceiling (Maximum)
Flat Coating	100	250
Nonflat coating	150	250
Floor Coatings	250	400
Industrial Maintenance Coatings	250	420
Primers, Sealers, and Undercoaters	200	350
Quick-Dry Primers, Sealers, and Undercoaters	200	450
Quick-Dry Enamels	250	400
Roof Coatings	250	300
Bituminous Roof Coatings	300	300
Rust Preventive Coatings	400	400
Stains	250	350
Waterproofing Sealers	250	400

A.2 AVERAGING PROGRAM (PROGRAM)

At least six months prior to the start of the compliance period, manufacturers shall submit an Averaging Program to the Executive Officer of the California Air Resources Board. As used in this Appendix A, "Executive Officer" means the Executive Officer of the California Air Resources Board. Averaging may not be implemented until the Program is approved in writing by the Executive Officer.

Within 45 days of submittal of a complete Program, the Executive Officer shall either approve or disapprove the Program. The Program applicant and the Executive Officer may agree to an extension of time for the Executive Officer to take action on the Program.

A.3 GENERAL REQUIREMENTS

The Program shall include all necessary information for the Executive Officer to make a determination as to whether the manufacturer may comply with the averaging requirements over the specified compliance period in an enforceable manner. Such information shall include, but is not limited to, the following:

A.3.1 An identification of the contact persons, telephone numbers, and name of the manufacturer who is submitting the Program.

A.3.2 An identification of each coating that has been selected by the manufacturer for inclusion in this Program that exceeds the applicable VOC limit in Table 1, its VOC content specified in units of both VOC actual and VOC regulatory, and the designation of the coating category.

A.3.3 A detailed demonstration showing that the projected actual emissions will not exceed the allowable emissions for a single compliance period that the Program will be in effect. In addition, the demonstration shall include VOC content information for each coating that is below the compliance limit in Table 1. The demonstration shall use the equation specified in subsection A.1 of this Appendix for projecting the actual emissions and allowable emissions during each compliance period. The demonstration shall also include all VOC content levels and projected volume sold within the State for each coating listed in the Program during each compliance period. The requested data can be summarized in a matrix form.

A.3.4 A specification of the compliance period(s) and applicable reporting dates. The length of the compliance period shall not be more than one year or less than six months.

A.3.5 An identification and description of all records to be made available to the Executive Officer upon request, if different than those identified under subsection A.3.6.

A.3.6 An identification and description of specific records to be used in calculating emissions for the Program and subsequent reporting, and a detailed explanation as to how those records will be used by the manufacturer to verify compliance with the averaging requirements.

A.3.7 A statement signed by a responsible party for the manufacturer, that all information submitted is true and correct, and that records will be made available to the Executive Officer upon request.

A.4 REPORTING REQUIREMENTS

A.4.1 For every single compliance period, the manufacturer shall submit a mid-term report listing all coatings subject to averaging during the first half of the compliance period, detailed analysis of the actual and allowable emissions at the end of the mid-term, and an explanation as to how the manufacturer intends to achieve compliance by the end of the compliance period. The report shall be signed by the responsible party for the manufacturer, attesting that all information submitted is true and correct. The mid-term report shall be submitted within 45 days after the midway date of the compliance period. A manufacturer may request, in writing, an extension of up to 14 days for submittal of the mid-term report.

A.4.2 Within 60 days after the end of the compliance period or upon termination of the Program, whichever is sooner, the manufacturer shall submit to the Executive Officer a report listing all coatings subject to averaging during the compliance period, providing a detailed demonstration of the balance between the actual and allowable emissions for the compliance period, any identification and description of specific records used by the manufacturer to verify compliance with the averaging requirement, and any other information requested by the Executive Officer to determine whether the manufacturer complied with the averaging requirements over the specified compliance period. The report shall be signed by the responsible party for the manufacturer, attesting that all information submitted is true and correct, and that records will be made available to the Executive Officer upon request. A manufacturer may request, in writing, an extension of up to 30 days for submittal of the final report.

A.5 RENEWAL OF A PROGRAM

A Program automatically expires at the end of the compliance period. The manufacturer may request a renewal of the Program by submitting a renewal request that shall include an updated Program, meeting all applicable Program requirements. The renewal request will be considered conditionally approved until the Executive Officer makes a final decision to deny or approve the renewal request based on a determination of whether the manufacturer is likely to comply with the averaging requirements. The Executive Officer shall base such determination on all available

information, including but not limited to, the mid-term and the final reports of the preceding compliance period. The Executive Officer shall make a decision to deny or approve a renewal request no later than 45 days from the date of the final report submittal, unless the manufacturer and the Executive Officer agree to an extension of time for the Executive Officer to take action on the renewal request.

A.6 MODIFICATION OF A PROGRAM

A Manufacturer may request a modification of the Program at any time prior to the end of the compliance period. The Executive Officer shall take action to approve or disapprove the modification request no longer than 45 days from the date of its submittal. No modification of the compliance period shall be allowed. A Program need not be modified to specify additional coatings to be averaged that are below the applicable VOC limits.

A.7 TERMINATION OF A PROGRAM

A.7.1 A manufacturer may terminate its Program at any time by filing a written notification to the Executive Officer. The filing date shall be considered the effective date of the termination, and all other provisions of this rule including the VOC limits shall immediately thereafter apply. The manufacturer shall also submit a final report 60 days after the termination date. Any exceedance of the actual emissions over the allowable emissions over the period that the Program was in effect shall constitute a separate violation for each day of the entire compliance period.

A.7.2 The Executive Officer may terminate a Program if any of the following circumstances occur:

A.7.2.1 The manufacturer violates the requirements of the approved Program, and at the end of the compliance period, the actual emissions exceed the allowable emissions.

A.7.2.2 The manufacturer demonstrates a recurring pattern of violations and has consistently failed to take the necessary steps to correct those violations.

A.8 CHANGE IN VOC LIMITS

If the VOC limits of a coating listed in the Program are amended such that its effective date is less than one year from the date of adoption, the affected manufacturer may base its averaging on the prior limits of that coating until the end of the compliance period immediately following the date of adoption.

A.9 LABELING

Each container of any coating that is included in Averaging Program, and that exceeds the applicable VOC limit in Table 1 shall display the following statement: "This product is subject to architectural coatings averaging provision in California." A symbol specified by the Executive Officer may be used as a substitute.

A.10 VIOLATIONS

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

A.11 SUNSET OF AVERAGING PROVISION

The averaging provision set forth in Appendix A shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.

RULE 323.1. ARCHITECTURAL COATINGS. (Adopted June 19, 2014, Effective January 1, 2015)

A. Applicability

1. Except as provided in Section B, this rule is applicable to any person who:

   a. Supplies, sells, or offers for sale any architectural coating for use within the District; or

   b. Manufactures, blends, or repackages any architectural coating for use within the District; or

   c. Applies or solicits the application of any architectural coating within the District.

2. Rule 323.1 shall be effective on January 1, 2015.

3. Rule 323, Architectural Coatings, shall remain in effect in its entirety until January 1, 2015. A coating manufactured prior to January 1, 2015 may be sold, supplied, or offered for sale for up to three years after January 1, 2015, provided that the coating complied, at the time of manufacture, with all applicable provisions in Rule 323 as revised November 15, 2001. Such coating may also be applied at any time, both before and after January 1, 2015. This Section does not apply to any coating that does not display the date or date code required by Section E.1.a of this rule.

B. Exemptions

1. The requirements of this rule shall not apply to the following:

   a. Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.

   b. Any aerosol coating product.

2. With the exception of Section F, this rule shall not apply to any architectural coating sold in a container with a volume of one liter (1.057 quarts) or less provided:

   a. The coating containers are not bundled together to be sold as a unit that exceeds one liter (1.057 quarts), excluding containers packed together for shipping to a retail outlet, warehouse, or a military distribution or redistribution facility.

3. Any architectural coating operation that is not conducted as part of a business is exempt from the requirements of Section D.4 of this rule.

4. Early Rule 323.1 compliance provision:

   Prior to January 1, 2015, any coating that meets the definition in Section C for a coating category listed in Table 323.1-1 and complies with the corresponding VOC limit in Table 323.1-1 and with the Most Restrictive VOC limit in Section D.2 and the corresponding Labeling Requirement in Section E, if applicable, shall be considered in compliance with this rule and exempt from Rule 323.

5. With the exception of Sections E and F, this rule shall not apply to any coating that contains less than 20 grams of VOC per liter (0.17 pounds of VOC per gallon) of coating, less water and less exempt compounds, as applied.

C. Definitions

See Rule 102, Definitions, for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Ablative Coating" means any coating that chars when exposed to open flame or extreme temperatures, as would occur during a rocket launch. The ablative char surface serves as an insulative barrier, protecting underlying coatings or surfaces from the heat or open flame.

"Adhesive" means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

"Aerosol Coating Product" means any pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications.

"Aluminum Roof Coating" means any coating labeled and formulated exclusively for application to roofs and containing at least 84 grams per liter of coating (0.7 pound per gallon of coating) of elemental aluminum pigment. Pigment content shall be determined in accordance with South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings By X-Ray Diffraction," incorporated by reference in Section G.5.c of this rule.

"Appurtenance" means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including, but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

"Architectural Coating" means any coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purposes of this rule.

"Asphalt" means the dark-brown to black cementitious material (solid, semi-solid, or liquid in consistency) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining.

"Basement Specialty Coating" means any clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a hydrostatic seal for basements and other below-grade surfaces. **Basement Specialty Coatings** shall meet the following criteria:

a. Coating shall be capable of withstanding at least 10 pounds per square inch of hydrostatic pressure, as determined in accordance with ASTM Designation D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry," ASTM International; which is incorporated by reference in Section G.5.k of this rule; and

b. Coating shall be resistant to mold and mildew growth and shall achieve a microbial growth rating of 8 or more, as determined in accordance with ASTM Designation D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber," ASTM International, and ASTM Designation D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation," ASTM International; incorporated by reference in Section G.5.q of this rule.

"Bay Area Air Quality Management District Method 41 (Revised 2005), "Materials Containing Parachlorobenzotrifluoride"" means the test method adopted by the Bay Area Air Quality Management District as of June 19, 2014.

"Bay Area Air Quality Management District Method 43 (Revised 2005), "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials"" means the test method adopted by the Bay Area Air Quality Management District as of June 19, 2014.

"Bitumens" means any black or brown materials, including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

"Bituminous Roof Coating" means any coating which incorporates bitumens that is labeled and formulated exclusively for roofing.

"Bituminous Roof Primer" means any primer which incorporates bitumens that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered or aged surface or improving the adhesion of subsequent surfacing components.

"Bond Breaker" means any coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

"Coating" means any material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

"Colorant" means any concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

"Concrete Curing Compound" means any coating labeled and formulated for application to freshly poured concrete to perform one or more of the following functions:

a. Retard the evaporation of water; or

b. Harden or dustproof the surface of freshly poured concrete.

"Concrete/Masonry Sealer" means any clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one or more of the following functions:

a. Prevent penetration of water; or

b. Provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or

c. Harden or dustproof the surface of aged or cured concrete.

"Driveway Sealer" means any coating labeled and formulated for application to worn asphalt driveway surfaces to perform one or more of the following functions:

a. Fill cracks; or

b. Seal the surface to provide protection; or

c. Restore or preserve the appearance.

"Dry Fog Coating" means any coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

"Exempt Compound" means any compound identified as exempt under the definition of "Volatile Organic Compound (VOC)." Tertiary-butyl acetate, also known as t-butyl acetate or tBAc, shall be considered exempt as a VOC only for purposes of VOC emissions limitations or VOC Content requirements and shall be considered a VOC for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to VOCs. Exempt compounds content of a coating shall be determined by Environmental Protection Agency Method 24 or South Coast Air Quality Management District Method 303-91 (Revised 1996), "Determination of Exempt Compounds," incorporated by reference in Section G.5.h and Section G.5.g of this rule, respectively.

"Faux Finishing Coating" means any coating labeled and formulated to meet one or more of the following criteria:

a. A glaze or textured coating used to create artistic effects, including, but not limited to: dirt, suede, old age, smoke damage, and simulated marble and wood grain; or

b. A decorative coating used to create a metallic, iridescent, or pearlescent appearance that contains at least 48 grams of pearlescent mica pigment or other iridescent pigment per liter of coating as applied (at least 0.4 pound per gallon); or

c. A decorative coating used to create a metallic appearance that contains less than 48 grams of elemental metallic pigment per liter of coating as applied (less than 0.4 pound per gallon), when tested in accordance with the South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings By X-Ray Diffraction," incorporated by reference in Section G.5.c of this rule; or

d. A decorative coating used to create a metallic appearance that contains greater than 48 grams of elemental metallic pigment per liter of coating as applied (greater than 0.4 pound per gallon) and which requires a clear topcoat to prevent the degradation of the finish under normal use conditions. The metallic pigment content shall be determined in accordance with the South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings By X-Ray Diffraction," incorporated by reference in Section G.5.c of this rule; or

e. A clear topcoat to seal and protect a Faux Finishing coating that meets the requirements of Section a, b, c, or d above. These clear topcoats shall be sold and used solely as part of a Faux Finishing coating system, and shall be labeled in accordance with Section E.1.d of this rule.

"Fire-Resistive Coating" means any coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. The Fire Resistive category includes sprayed fire resistive materials and intumescent fire resistive coatings that are used to bring structural materials into compliance with federal, state, and local building code requirements. Fire-Resistive coatings shall be tested in accordance with ASTM Designation E119-07, "Standard Test Methods for Fire Tests of Building Construction and Materials," ASTM International, incorporated by reference in Section G.5.a of this rule. Fire Resistive coatings and testing agencies shall be approved by building code officials.

"Flat Coating" means any coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM Designation D523-89(1999), "Standard Test Method for Specular Gloss," ASTM International, incorporated by reference in Section G.5.b of this rule.

"Floor Coating" means any opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors, and other horizontal surfaces that may be subject to foot traffic.

"Form-Release Compound" means any coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

"Graphic Arts Coating or Sign Paint" means any coating labeled and formulated for hand-application by artists using brush, airbrush, or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels.

"High Temperature Coating" means any high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204 degrees Celsius (400 degrees Fahrenheit).

"Industrial Maintenance Coating" means any high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions listed in Section a through e below, and labeled as specified in Section E.1.e of this rule:

a. Immersion in water, wastewater, or chemical solutions, including aqueous and non-aqueous solutions, or chronic exposure of interior surfaces to moisture condensation; or

b. Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions; or

c. Frequent exposure to temperatures above 121 degrees Celsius (250 degrees Fahrenheit); or

d. Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, or scouring agents; or

e. Exterior exposure of metal structures and structural components.

"Low Solids Coating" means any coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material as recommended for application by the manufacturer. The VOC Content for Low Solids Coatings shall be calculated in accordance with the definition of "**VOC Actual**" within Section C of this rule.

"Magnesite Cement Coating" means any coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

"Manufacturer" means any person, company, firm, or establishment who imports, blends, assembles, produces, packages, repackages, or re-labels any architectural coating, not including retail outlets where labels or stickers may be affixed to architectural coating containers or where colorant is added at the point of sale.

"Manufacturer's Maximum Thinning Recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

"Mastic Texture Coating" means any coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (at least 0.010 inch) dry film thickness.

"Medium Density Fiberboard (MDF)" means any composite wood product, panel, molding, or other building material composed of cellulosic fibers, usually wood, made by dry forming and pressing of a resinated fiber mat.

"Metallic Pigmented Coating" means any coating that is labeled and formulated to provide a metallic appearance. Metallic Pigmented coatings shall contain at least 48 grams of elemental metallic pigment (excluding zinc) per liter of coating as applied (at least 0.4 pound per gallon), when tested in accordance with South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings By X-Ray Diffraction," incorporated by reference in Section G.5.c of this rule. The Metallic Pigmented Coating category does not include coatings applied to roofs or Zinc-Rich Primers.

"Multi-Color Coating" means any coating that is packaged in a single container and that is labeled and formulated to exhibit more than one color when applied in a single coat.

"Multicomponent Coating" means any coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to form an acceptable dry film.

"National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures"" means the test method adopted by the Transportation Research Board as of June 19, 2014.

"Nonflat Coating" means any coating that is not defined under any other definition in this rule and that registers a gloss of 15 or greater on an 85-degree meter and 5 or greater on a 60-degree meter according to ASTM Designation D523-89(1999), "Standard Test Method for Specular Gloss," ASTM International, incorporated by reference in Section G.5.b of this rule.

"Nonflat - High Gloss Coating" means any nonflat coating that registers a gloss of 70 or greater on a 60-degree meter according to ASTM Designation D523-89(1999), "Standard Test Method for Specular Gloss," ASTM International, incorporated by reference in Section G.5.b of this rule. Nonflat – High Gloss coatings shall be labeled in accordance with Section E.1.i.

"Particleboard" means any composite wood product panel, molding, or other building material composed of cellulosic material, usually wood, in the form of discrete particles, as distinguished from fibers, flakes, or strands, which are pressed together with resin.

"Pearlescent" means exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

"Plywood" means any panel product consisting of layers of wood veneers or composite core pressed together with resin. Plywood includes panel products made by either hot or cold pressing (with resin) veneers to a platform.

"Post-Consumer Coating" means any finished coating generated by a business or consumer that have served their intended end uses, and are recovered from or otherwise diverted from the waste stream for the purpose of recycling.

"Pretreatment Wash Primer" means any primer that contains a minimum of 0.5 percent acid, by weight, when tested in accordance with ASTM Designation D1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products," ASTM International, incorporated by reference in Section G.5.d of this rule, that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

"Primer, Sealer, and Undercoater" means any coating labeled and formulated for one or more of the following purposes:

a. To provide a firm bond between the substrate and the subsequent coatings; or

b. To prevent subsequent coatings from being absorbed by the substrate; or

c. To prevent harm to subsequent coatings by materials in the substrate; or

d. To provide a smooth surface for the subsequent application of coatings; or

e. To provide a clear finish coat to seal the substrate; or

f. To block materials from penetrating into or leaching out of a substrate.

"Reactive Penetrating Sealer" means any clear or pigmented coating that is labeled and formulated for application to above-grade concrete and masonry substrates to provide protection from water and waterborne contaminants, including, but not limited to, alkalis, acids, and salts. Reactive Penetrating Sealers shall penetrate into concrete and masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. Reactive Penetrating Sealers line the pores of concrete and masonry substrates with a hydrophobic coating, but do not form a surface film. Reactive Penetrating Sealers shall meet all of the following criteria:

a. The Reactive Penetrating Sealer shall improve water repellency at least 80 percent after application on a concrete or masonry substrate. This performance shall be verified on standardized test specimens, in accordance with one or more of the following standards, incorporated by reference in Section G.5.r of this rule: ASTM Designation C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile," or ASTM Designation C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone," or ASTM C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units," ASTM International; and

b. The Reactive Penetrating Sealer shall not reduce the water vapor transmission rate by more than 2 percent after application on a concrete or masonry substrate. This performance shall be verified on standardized test specimens, in accordance with ASTM Designation E96/E96M-05, "Standard Test Methods for Water Vapor Transmission of Materials," ASTM International, incorporated by reference in Section G.5.s of this rule;

c. Products labeled and formulated for vehicular traffic surface chloride screening applications shall meet the performance criteria listed in the National Cooperative Highway Research Report 244 (1981), incorporated by reference in Section G.5.t of this rule; and

d. Containers for Reactive Penetrating Sealers shall be labeled in accordance with Section E.1.g of this rule.

"Recycled Coating" means any architectural coating formulated such that it contains a minimum of 50 percent by volume of post-consumer coating, with a maximum of 50 percent by volume of secondary industrial materials or virgin materials.

"Roof Coating" means any non-bituminous coating labeled and formulated for application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation.

"Rust Preventative Coating" means any coating formulated to prevent the corrosion of metal surfaces for one or more of the following applications:

a. Direct-to-metal coating; or

b. Coating intended for application over rusty, previously coated surfaces.

The Rust Preventative category does not include the following:

a. Coatings that are required to be applied as a topcoat over a primer; or

b. Coatings that are intended for use on wood or any other non-metallic surface.

Rust Preventative coatings are for metal substrates only and shall be labeled as such, in accordance with the labeling requirements in Section E.1.f of this rule.

"Secondary Industrial Materials" means any products or by-products of the paint manufacturing process that are of a known composition and have economic value but can no longer be used for their intended purpose.

"Semitransparent Coating" means any coating that contains binders and colored pigments and is formulated to change the color of the surface, but not conceal the grain pattern or texture.

"Shellac" means any clear or opaque coating formulated solely with the resinous secretions of the lac beetle, *Laccifer lacca*, and formulated to dry by evaporation without a chemical reaction.

"Shop Application" means any application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

"Solicit" means to require for use or to specify, by written or oral contract.

"South Coast Air Quality Management District Method 303-91 (Revised 1996), "Determination of Exempt Compounds," August 1996," means the test method adopted by the South Coast Air Quality Management District as of June 19, 2014.

"South Coast Air Quality Management District Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials"" means the test method adopted by the South Coast Air Quality Management District as of June 19, 2014.

"South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction"" means the test method adopted by the South Coast Air Quality Management District as of June 19, 2014.

"Stain" means any semitransparent or opaque coating labeled and formulated to change the color of a surface but not to conceal the grain pattern or texture.

"Stone Consolidant" means any coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. Stone Consolidants shall penetrate into stone substrates to create bonds between particles and consolidate deteriorated material. Stone Consolidants shall be specified and used in accordance with ASTM Designation E2167-01, "Standard Guide for Selection and Use of Stone Consolidants," ASTM International, incorporated by reference in Section G.5.u of this rule. Stone Consolidants are for professional use only and shall be labeled as such, in accordance with the labeling requirements in Section E.1.h of this rule.

"Swimming Pool Coating" means any coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals. Swimming pool coatings include coatings used for swimming pool repair and maintenance.

"Tint Base" means any architectural coating to which colorant is added after packaging in sale units to produce a desired color.

"Traffic Marking Coating" means any coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces, including, but not limited to, curbs, berms, driveways, parking lots,

sidewalks, and airport runways.

"Tub and Tile Refinish Coating" means any clear or opaque coating that is labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Tub and Tile Refinish coatings shall meet all of the following criteria:

a. The coating shall have a scratch hardness of 3H or harder and a gouge hardness of 4H or harder. This shall be determined on bonderite 1000, in accordance with ASTM Designation D3363-05, "Standard Test Method for Film Hardness by Pencil Test," ASTM International, incorporated by reference in Section G.5.m of this rule; and

b. The coating shall have a weight loss of 20 milligrams or less after 1000 cycles. This shall be determined with CS-17 wheels on bonderite 1000, in accordance with ASTM Designation D4060-07, "Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser," ASTM International, incorporated by reference in Section G.5.n of this rule; and

c. The coating shall withstand 1000 hours or more of exposure with few or no #8 blisters. This shall be determined on unscribed bonderite, in accordance with ASTM Designation D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation," ASTM International, and ASTM Designation D714-02e1, "Standard Test Method for Evaluating Degree of Blistering of Paints," ASTM International, incorporated by reference in Section G.5.o of this rule; and

d. The coating shall have an adhesion rating of 4B or better after 24 hours of recovery. This shall be determined on unscribed bonderite, in accordance with ASTM Designation D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation," ASTM International, and ASTM Designation D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test," ASTM International, incorporated by reference in Section G.5.l of this rule.

"Veneer" means any thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated veneer lumber, or other products.

"Virgin Materials" means any materials that contain no post-consumer coatings or secondary industrial materials.

"Volatile Organic Compound (VOC)" means any compound containing at least one (1) atom of carbon, except for the following exempt compounds:

a. acetone
b. ammonium carbonate
c. carbon dioxide
d. carbon monoxide
e. carbonic acid
f. dimethyl carbonate
g. ethane
h. metallic carbides or carbonates
i. methane
j. methyl acetate
k. methyl chloroform (1,1,1-trichloroethane)
l. methyl formate; $HCOOCH_3$
m. cyclic, branched, or linear completely methylated siloxane compounds
n. methylene chloride
o. parachlorobenzotrifluoride
p. perchloroethylene (tetrachloroethylene)

q. the following four classes of perfluorocarbon (PFC) compounds:
   i. cyclic, branched, or linear, completely fluorinated alkanes,
   ii. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
   iii. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
   iv. sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

r. propylene carbonate

s. tertiary-butyl acetate; $C_6H_{12}O_2$ ("acetic acid, 1,1-dimethylethyl ester")
Tertiary-butyl acetate (also known as t-butyl acetate or tBAc) shall be considered exempt as a VOC only for purposes of VOC emissions limitations or VOC Content requirements and shall be a VOC for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to VOCs.

t. CFC-11 (trichlorofluoromethane)

u. CFC-12 (dichlorodifluoromethane)

v. CFC-113 (1,1,2-trichloro-1,2,2-trifluoroethane)

w. CFC-114 (1,2-dichloro 1,1,2,2-tetrafluoroethane)

x. CFC-115 (chloropentafluoroethane)

y. HCFC-22 (chlorodifluoromethane)

z. HCFC-31 (chlorofluoromethane)

aa. HCFC-123 (1,1,1-trifluoro 2,2-dichloroethane)

ab. HCFC-123a (1,2-dichloro-1,1,2-trifluoroethane)

ac. HCFC-124 (2-chloro-1,1,1,2-tetrafluoroethane)

ad. HCFC-141b (1,1-dichloro 1-fluoroethane)

ae. HCFC-142b (1-chloro-1,1 difluoroethane)

af. HCFC-151a (1-chloro-1-fluoroethane)

ag. HCFC-225ca (3,3-dichloro-1,1,1,2,2-pentafluoropropane)

ah. HCFC-225cb (1,3-dichloro-1,1,2,2,3-pentafluoropropane)

ai. HFC-23 (trifluoromethane)

aj. HFC-32 (difluoromethane)

ak. HFC-43-10mee (1,1,1,2,3,4,4,5,5,5-decafluoropentane)

al. HFC-125 (pentafluoroethane)

am. HFC-134 (1,1,2,2-tetrafluoroethane)

an. HFC-134a (1,1,1,2-tetrafluoroethane)

ao. HFC-143a (1,1,1-trifluoroethane)

ap. HFC-152a (1,1-difluoroethane)

aq. HFC-161 (ethylfluoride)

ar. HFC-227ea (1,1,1,2,3,3,3-heptafluoropropane)

as. HFC-236ea (1,1,1,2,3,3-hexafluoropropane)

at. HFC-236fa (1,1,1,3,3,3-hexafluoropropane)

au. HFC-245ca (1,1,2,2,3-pentafluoropropane)

av. HFC-245ea (1,1,2,3,3-pentafluoropropane)

aw. HFC-245eb (1,1,1,2,3-pentafluoropropane)

ax. HFC-245fa (1,1,1,3,3-pentafluoropropane)

ay. HFC-365mfc (1,1,1,3,3-pentafluorobutane)

az. HFE-7000; n-$C_3F_7OCH_3$; (1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane)

ba. HFE-7100; $(CF_3)_2CFCF_2OCH_3$; (2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane) or $C_4F_9OCH_3$; (1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane)

bb. HFE-7200; $(CF_3)_2CFCF_2OC_2H_5$; (2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane) or $C_4F_9OC_2H_5$; (1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane)

bc. HFE-7300; (1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane)

bd. HFE-7500; (3-ethoxy- 1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2- (trifluoromethyl) hexane)

"VOC Actual" means the weight of VOC per volume of coating and it is calculated with the following equation:

$$\text{VOC Actual} = \frac{(W_s - W_w - W_{ec})}{(V_m)}$$

Where:

VOC Actual = the grams of VOC per liter of coating (also known as "Material VOC")
W_s = weight of volatiles, in grams
W_w = weight of water, in grams
W_{ec} = weight of exempt compounds, in grams
V_m = volume of coating, in liters

"VOC Content" means the weight of VOC per volume of coating. VOC Content is "**VOC Regulatory**," as defined in Section C of this rule, for all coatings except for those in the Low Solids category. For coatings in the Low Solids category, the VOC Content is "**VOC Actual**," as defined in Section C of this rule. If the coating is a multicomponent coating, the VOC Content is "**VOC Regulatory**" as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC Content shall include the VOCs emitted during curing.

"VOC Regulatory" means the weight of VOC per volume of coating, less the volume of water and exempt compounds. It is calculated with the following equation:

$$\text{VOC Regulatory} = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})}$$

Where:

VOC Regulatory = grams of VOC per liter of coating, less water and exempt compounds (also known as "Coating VOC")
W_s = weight of volatiles, in grams
W_w = weight of water, in grams
W_{ec} = weight of exempt compounds, in grams
V_m = volume of coating, in liters
V_w = volume of water, in liters
V_{ec} = volume of exempt compounds, in liters

"Waterproofing Membrane" means any clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents any penetration of liquid water into the substrate. Waterproofing Membranes are intended for the following waterproofing applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters, and under flooring materials. Waterproofing Membranes shall meet the following criteria:

a. Coating shall be applied in a single coat of at least 25 mils (at least 0.025 inch) dry film thickness; and

b. Coatings shall meet or exceed the requirements contained in ASTM Designation C836-06, "Standard Specification for High Solids Content, Cold Liquid Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course," ASTM International, incorporated by reference in Section G.5.p of this rule.

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

"Wood Coating" means any coating labeled and formulated for application to wood substrates only. The Wood Coatings category includes the following clear and semitransparent coatings: lacquers; varnishes; sanding sealers; penetrating oils; clear stains; wood conditioners used as undercoats; and wood sealers used as topcoats. The Wood Coatings category also includes the following opaque wood coatings: opaque lacquers; opaque sanding sealers; and opaque lacquer undercoaters. The Wood Coatings category does not include the following: clear sealers that are labeled and formulated for use on concrete/masonry surfaces; or coatings intended for substrates other than wood.

Wood Coatings shall be labeled "For Wood Substrates Only," in accordance with Section E.1.j of this rule.

"Wood Preservative" means any coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136, *et seq.)* and with the California Department of Pesticide Regulation.

"Wood Substrate" means any substrate made of wood, particleboard, plywood, medium density fiberboard, rattan, wicker, bamboo, or composite products with exposed wood grain. Wood products do not include items comprised of simulated wood.

"Zinc-Rich Primer" means any coating that meets all of the following specifications:

a. Coating contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and

b. Coating is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings; and

c. Coating is intended for professional use only and is labeled as such, in accordance with the labeling requirements in Section E.1.k of this rule.

D. Standards

1. **VOC Content Limits:**

a. Except as provided in Sections D.2 or D.3 of this rule, no person shall manufacture, blend, repackage, supply, sell or offer for sale, for use within the District, nor solicit for application or apply within the District any architectural coating that has a VOC Content in excess of any corresponding limit specified in Table 323.1-1.

b. For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table 323.1-1, the VOC Content limit shall be determined by classifying the coating as a Flat coating, a Nonflat coating, or a Nonflat – High Gloss coating, based on its gloss, as determined by the method specified in Section G.5.b and the corresponding Flat, Nonflat, or Nonflat – High Gloss coating VOC limit shall apply.

2. **Most Restrictive VOC Limit:** If a coating meets the definition in Section C of this rule for one or more specialty coating categories that are listed in Table 323.1-1, then that coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat – High Gloss coatings, but shall meet the VOC limit for the applicable specialty coating listed in Table 323.1-1.

With the exception of the specialty coating categories specified in Sections D.2.a through D.2.k, if a coating is recommended for use in more than one of the specialty coating categories listed in

Table 323.1-1, the most restrictive (or lowest) VOC Content limit shall apply. This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf.

a. Aluminum roof coatings;

b. Bituminous roof primers;

c. High temperature coatings;

d. Industrial maintenance coatings;

e. Low solids coatings;

f. Metallic pigmented coatings;

g. Pretreatment wash primers;

h. Shellacs;

i. Wood coatings;

j. Wood preservatives; and

k. Zinc-rich primers.

3. **Sell-Through of Coatings:**

A coating manufactured prior to January 1, 2015 may be sold, supplied, or offered for sale for up to three years after January 1, 2015, provided that the coating complied, at the time of manufacture, with all applicable provisions in Rule 323 as revised November 15, 2001. Such coating may also be applied at any time, both before and after January 1, 2015. This Section does not apply to any coating that does not display the date or date code required by Section E.1.a of this rule.

4. **Painting Practices:**

All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.

5. **Thinning:** No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in Table 323.1-1.

E. Container Labeling Requirements

1. Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections E.1.a through E.1.c on the coating container (or label) in which the coating is sold or distributed, and as applicable, the information in Sections E.1.d through E.1.k.

a. **Date Code:** The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a

date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the California Air Resources Board.

b. **Thinning Recommendations:** A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation shall specify that the coating is to be applied without thinning.

c. **VOC Content:** Each container of any coating subject to this rule shall display one of the following values in grams of VOC per liter of coating:

   i. Maximum VOC Content as determined from all potential product formulations; or

   ii. VOC Content as determined from actual formulation data; or

   iii. VOC Content as determined using the test methods in Section G.2 of this rule.

   If the manufacturer does not recommend thinning, the container shall display the VOC Content, as supplied. If the manufacturer recommends thinning, the container shall display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multicomponent coating, the container shall display the VOC Content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC Content shall include the VOCs emitted during curing. VOC Content shall be determined as defined in Section C.

d. **Faux Finishing Coatings:** The labels of all Clear Topcoats for Faux Finishing coatings shall prominently display the statement "This product can only be sold or used as part of a Faux Finishing coating system."

e. **Industrial Maintenance Coatings:** The labels of all Industrial Maintenance coatings shall prominently display the statement "For industrial use only" or "For professional use only" or "Not for residential use" or "Not intended for residential use."

f. **Rust Preventative Coatings:** The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only."

g. **Reactive Penetrating Sealers:** The labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer."

h. **Stone Consolidants:** The labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant - For Professional Use Only."

i. **Nonflat – High Gloss Coatings:** The labels of all Nonflat – High Gloss coatings shall prominently display the words "High Gloss."

j. **Wood Coatings:** The labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only."

k. **Zinc Rich Primers**: The labels of all Zinc Rich Primers shall prominently display the statement "For industrial use only" or "For professional use only" or "Not for residential use" or "Not intended for residential use."

F. Recordkeeping and Reporting Requirements

1. **Sales Data:** A responsible official from each manufacturer shall upon request of the Executive Officer of the ARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. The responsible official shall within 180 days provide information, including, but not limited to:

   a. the name and mailing address of the manufacturer;

   b. the name, address and telephone number of a contact person;

   c. the name of the coating product as it appears on the label and the applicable coating category;

   d. whether the product is marketed for interior or exterior use or both;

   e. the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);

   f. the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multicomponent product, provide the VOC content as mixed or catalyzed;

   g. the names and CAS numbers of the VOC constituents in the product;

   h. the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition, as listed in Section C of this rule;

   i. whether the product is marketed as solventborne, waterborne, or 100% solids;

   j. description of resin or binder in the product;

   k. whether the coating is a single-component or multicomponent product;

   l. the density of the product in pounds per gallon;

   m. the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition, as listed in Section C of this rule;

   n. the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition, as listed in Section C of this rule; and

   o. For any product containing tertiary-butyl acetate, the product's tertiary-butyl acetate content in grams of tertiary-butyl acetate per liter, and the number of gallons per year sold in California.

2. All sales data listed in Section F.1 above shall be maintained by the responsible official for a minimum of three years. Sales data submitted by the responsible official to the Executive Officer of the Air Resources Board may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations Sections 91000-91022.

G. Compliance Provisions and Test Methods

1. **Calculation of VOC Content:** For the purpose of determining compliance with the VOC Content limits in Table 323.1-1, the VOC Content of a coating shall be determined using the procedure described in the appropriate Section C definition. The VOC Content of a tint base shall be determined without colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content shall be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content shall be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multicomponent coating, the VOC Content shall be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC Content shall include the VOCs emitted during curing.

2. **VOC Content of Coatings:** To determine the physical properties of a coating in order to perform the calculations in the Section C definition for **VOC Actual** for low solids coatings or the Section C definition for **VOC Regulatory** for all other architectural coatings, the reference method for VOC Content is the Environmental Protection Agency Method 24, incorporated by reference in Section G.5.h, except as provided in Sections G.3 and G.4. An alternative method to determine the VOC Content of coatings is South Coast Air Quality Management District Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," incorporated by reference in Section G.5.i. The exempt compounds content shall be determined by South Coast Air Quality Management District Method 303-91 (Revised 1996), "Determination of Exempt Compounds," or the Bay Area Air Quality Management District Method 43 (Revised 2005), "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," or the Bay Area Air Quality Management District Method 41 (Revised 2005), "Materials Containing Parachlorobenzotrifluoride," as applicable, incorporated by reference in Sections G.5.g, G.5.e, and G.5.f, respectively. To determine the VOC Content of a coating, the manufacturer may use the Environmental Protection Agency Method 24, or an alternative method as provided in Section G.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC Content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section G.3. The Control Officer may require the manufacturer to conduct a Method 24 analysis.

3. **Alternative Test Methods:** Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section G.2, after review and approved in writing by the staffs of the District, the California Air Resources Board, and the Environmental Protection Agency, may also be used.

4. **Methacrylate Traffic Marking Coatings:** Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of Environmental Protection Agency Method 24 (40 CFR part 59, subpart D, appendix A), incorporated by reference in Section G.5.j. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.

5. **Test Methods:** The following test methods are incorporated by reference herein, and shall be used to test coatings subject to the provisions of this rule:

    a. **Fire Resistance Rating:** The fire resistance rating of a fire-resistive coating shall be determined by ASTM Designation E119-07, "Standard Test Methods for Fire Tests of Building Construction and Materials," ASTM International (see Section C, Fire-Resistive Coating).

b. **Gloss Determination:** The gloss of a coating shall be determined by ASTM Designation D523-89 (1999), "Standard Test Method for Specular Gloss," ASTM International (see Section C, Flat Coating, Nonflat Coating, and Nonflat – High Gloss Coating).

c. **Metal Content of Coatings:** The metallic content of a coating shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section C, Aluminum Roof, Faux Finishing, and Metallic Pigmented Coating).

d. **Acid Content of Coatings:** The acid content of a coating shall be determined by ASTM Designation D1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products," ASTM International (see Section C, Pretreatment Wash Primer).

e. **Exempt Compounds – Siloxanes:** Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section G by Bay Area Air Quality Management District Method 43 (Revised 2005), "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," *BAAQMD Manual of Procedures,* Volume III, adopted November 6, 1996 (see Section C, Volatile Organic Compound (VOC), and Section G.2).

f. **Exempt Compounds – Parachlorobenzotrifluoride (PCBTF):** The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section G by Bay Area Air Quality Management District Method 41 (Revised 2005), "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," *BAAQMD Manual of Procedures,* Volume III, adopted December 20, 1995 (see Section C, Volatile Organic Compound (VOC), and Section G.2).

g. **Exempt Compounds:** The content of exempt compounds shall be analyzed by South Coast Air Quality Management District Method 303-91 (Revised 1996), "Determination of Exempt Compounds," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section C, Volatile Organic Compound (VOC), and Section G.2).

h. **VOC Content of Coatings:** The VOC Content of a coating (actual and regulatory) shall be determined by Environmental Protection Agency Method 24 as it exists in appendix A of 40 *Code of Federal Regulations* (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings" (see Section G.2).

i. **Alternative VOC Content of Coatings:** The VOC Content of coatings (actual and regulatory) may be analyzed either by Environmental Protection Agency Method 24 or South Coast Air Quality Management District Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section G.2).

j. **Methacrylate Traffic Marking Coatings:** The VOC Content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedure in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (June 30, 1999) (see Section G.4).

k. **Hydrostatic Pressure for Basement Specialty Coatings:** ASTM Designation D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below

Grade Applications Applied to Masonry," ASTM International (see Section C, Basement Specialty Coating).

l. **Tub and Tile Refinish Coating Adhesion:** ASTM Designation D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation," ASTM International, and ASTM D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test," ASTM International (see Section C, Tub and Tile Refinish Coating).

m. **Tub and Tile Refinish Coating Hardness:** ASTM Designation D3363-05, "Standard Test Method for Film Hardness by Pencil Test," ASTM International (see Section C, Tub and Tile Refinish Coating).

n. **Tub and Tile Refinish Coating Abrasion Resistance**: ASTM Designation D4060-07, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser," ASTM International (see Section C, Tub and Tile Refinish Coating).

o. **Tub and Tile Refinish Coating Water Resistance**: ASTM Designation D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation," ASTM International, and ASTM Designation D714-02e1, "Standard Test Method for Evaluating Degree of Blistering of Paints," ASTM International (see Section C, Tub and Tile Refinish Coating).

p. **Waterproofing Membrane**: ASTM Designation C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course," ASTM International (see Section C, Waterproofing Membrane).

q. **Mold and Mildew Growth for Basement Specialty Coatings**: ASTM Designation D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber," ASTM International, and ASTM Designation D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation," ASTM International (see Section C, Basement Specialty Coating).

r. **Reactive Penetrating Sealer Water Repellency:** ASTM Designation C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile," ASTM International, or ASTM Designation C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone," ASTM International, or ASTM Designation C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units," ASTM International (see Section C, Reactive Penetrating Sealer).

s. **Reactive Penetrating Sealer Water Vapor Transmission:** ASTM Designation E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials," ASTM International (see Section C, Reactive Penetrating Sealer).

t. **Reactive Penetrating Sealer - Chloride Screening Applications:** National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures" (see Section C, Reactive Penetrating Sealer).

u. **Stone Consolidants:** ASTM Designation E2167-01, "Standard Guide for Selection and Use of Stone Consolidants," ASTM International (see Section C, Stone Consolidant).

6. **Environmental Protection Agency Test Method in Effect:** The Environmental Protection Agency test methods in effect on June 19, 2014 shall be the test methods used to meet the requirements of this rule.

Table 323.1-1

VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS

Limits are expressed as **VOC Regulatory,** thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

COATING CATEGORY	VOC Content Limit (Grams of VOC per Liter of Coating)
Flat Coatings	50
Nonflat Coatings	100
Nonflat – High Gloss Coatings	150
Specialty Coatings	
Ablative Coatings	250
Aluminum Roof Coatings	400
Basement Specialty Coatings	400
Bituminous Roof Coatings	50
Bituminous Roof Primers	350
Bond Breakers	350
Concrete Curing Compounds	350
Concrete/Masonry Sealers	100
Driveway Sealers	50
Dry Fog Coatings	150
Faux Finishing Coatings	350
Fire-Resistive Coatings	350
Floor Coatings	100
Form-Release Compounds	250
Graphic Arts Coatings or Sign Paints	500
High Temperature Coatings	420
Industrial Maintenance Coatings	250
Low Solids Coatings[1]	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	100
Metallic Pigmented Coatings	500
Multi-Color Coatings	250
Pretreatment Wash Primers	420
Primers, Sealers, and Undercoaters	100
Reactive Penetrating Sealers	350
Recycled Coatings	250
Roof Coatings	50
Rust Preventative Coatings	250
Shellacs: • Clear • Opaque	 730 550
Stains	250
Stone Consolidants	450

[1] Limit is expressed as **VOC Actual**.

COATING CATEGORY	VOC Content Limit (Grams of VOC per Liter of Coating)
Swimming Pool Coatings	340
Traffic Marking Coatings	100
Tub and Tile Refinish Coatings	420
Waterproofing Membranes	250
Wood Coatings	275
Wood Preservatives	350
Zinc-Rich Primers	340

SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 324. DISPOSAL AND EVAPORATION OF SOLVENTS.

(Adopted 10/18/1971, revised 2/24/1975, readopted 10/23/1978)

A person shall not, during any one day, dispose of a total of more than 1-1/2 gallons of any photochemically reactive solvent, or of any material containing more than 1-1/2 gallons of any such photochemically reactive solvent by any means which will permit the evaporation of such solvent into the atmosphere.

RULE 325. CRUDE OIL PRODUCTION AND SEPARATION. (Adopted 1/25/1994, revised 1/18/2001, and 7/19/2001)

A. Applicability

This rule applies to equipment used in the production, gathering, storage, processing, and separation of crude oil and natural gas prior to custody transfer.

B. Exemptions

1. The provisions of Section D.1 of this rule shall not apply to any of the following:

    a. Any tank battery, including wash tanks, produced water tanks and wastewater separators, for the purpose of processing crude oil having a vapor pressure at the initial storage tank entry point of less than 0.5 pounds per square inch absolute.

    b. Any temporary tank battery, including wash tanks, produced water tanks and wastewater separators, holding or storing crude oil from any new crude oil production well, for a period of up to ninety (90) days following initial production from that well.

    c. Any portable tank if all the following conditions are met:

        1) The tank is not used to increase the storage capacity of an existing tank battery.

        2) The tank is not located within 150 feet of a tank battery that is subject to the provisions of Section D.1.

        3) The tank is being used during maintenance activity at a tank battery or well and has not held or stored crude oil for more than 60 consecutive days, at that tank battery or well.

    d. Tanks with capacities of 40,000 gallons or less of a producer who produces less than 400 barrels per day of crude oil from all operations within the County providing average daily throughput is less than 6,300 gallons per day (150 barrels), and the tank is equipped with a pressure relief device set in accordance with appropriate recommendations of the American Petroleum Institute, and the crude oil has a vapor pressure of less than 1.5 pounds per square inch absolute.

2. The provisions of Section D.1 of this rule shall not apply during maintenance operations on vapor recovery systems or tank batteries, including wash tanks, produced water tanks and wastewater separators, if the Air Pollution Control District is notified verbally by 4:30 P.M. the day prior to the maintenance operation and if the maintenance operation will take no more than 24 hours to complete.

3. The provisions of Sections D.1 and D.2 of this rule shall not apply to any wastewater tank if the reactive organic compound content of the liquid entering the tank is less than 5 milligrams per liter or the reactive organic compound emissions from the wastewater tank are measured to be less than 0.25 tons per year.

4. This rule shall not apply to components, as that term is defined in Rule 331 (Fugitive Emissions Inspection and Maintenance), which are subject to inspection and maintenance under Rule 331.

5. Sections D, E, F.4 and H of this rule shall not apply to pressure vessels or out of service tanks.

6. Sections D.1 and D.2 of this rule shall not apply to any wastewater tank which recovers less than 10 gallons per day of any petroleum product from liquid received from equipment which handles hydrocarbons with a maximum vapor pressure less than 0.5 pounds per square inch absolute if the operator verifies applicability of this exemption by maintaining weekly records of the amount of oil recovered.

C. Definitions

See Rule 102 for definitions not restricted to interpretation of this rule.

"**Alternate test method**": A new method for testing that is not referenced in this rule or which involves major changes to a referenced test method.

"**Average daily throughput**": The quantity obtained by dividing the volume of crude oil which enters such tank in a calendar month by the number of days in that month.

"**Custody transfer**": The transfer of produced crude oil and/or condensate, after separation and/or treatment in production operations, from storage tanks or automatic transfer facilities to pipelines or any other form of transportation.

"Heavy Oil": Crude oil with American Petroleum Institute gravity less than twenty degrees.

"HOST Test Method": The "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatography", approved by the United States Environmental Protection Agency and any subsequent updates approved by the United States Environmental Protection Agency.

"**Leak**": A leak exists when one of the following conditions exists:

a. a reading in excess of 10,000 ppm, as methane, above background, is obtained using an appropriate portable hydrocarbon analyzer and when sampling is performed according to the procedures specified in United States Environmental Protection Agency Method 21 - Appendix A, 40 CFR Section 3.2.1., or

b. the dripping of liquid containing reactive organic compounds at a rate of more than 3 (three) drops per minute is observed.

A leak is not a gaseous emission from pressure relief devices on tanks or delivery vessels when the process pressure exceeds the limit specified for the device.

"Light Oil": Crude oil with American Petroleum Institute gravity greater than or equal to twenty degrees.

"**Liquid-tight**": The absence of visible indications of recent seepage of tank contents on the outside of the tank.

"**Out of service**": A tank 1) in which there is no liquid present, 2) which is configured to allow easy verification of such emptiness by inspection, and 3) for which no concentrations of gaseous organic compounds greater than 1000 (one thousand) ppmv can be detected outside the tank using United States Environmental Protection Agency Method 21.

"**Petroleum material**": Liquids resulting from petroleum production operations that contain more than five (5) milligrams per liter of reactive organic compound (ROC) material.

"**Portable tank**": A tank that can be moved from one location to another by attachment to a motor vehicle without having to be dismantled.

"**Pressure vessel**": Vessels rated, as indicated by an ASME pressure rating stamp, and operated to contain normal working pressures of at least 15 psig without vapor loss to the atmosphere.

"**Produced gas**": Organic compounds that are both 1) gaseous at standard temperature and pressure, and 2) associated with the production, gathering, separation or processing of crude oil or natural gas.

"**Produced water**": Water associated with the production, gathering, separation and processing of crude oil.

"**Tank**": A container, constructed primarily of nonearthen materials, used for the purpose of storing or holding petroleum material, or for the purpose of separating water and/or gas from petroleum material.

"**Tank battery**": Any tank, or any aggregation of tanks. An aggregation of tanks will be considered a tank battery only if the tanks are located so that no one tank is more than 150 feet from any other tank, edge to edge.

"**Vapor pressure**": The vapor pressure determined as described in Section G.2 of this rule.

"**Vapor recovery system**": Any reactive organic compound vapor control system which is designed to prevent the release or venting of reactive organic compound gases to the atmosphere under normal operating conditions.

"**Wash tank**": Any tank that is not a pressure vessel and is used for the purpose of the primary separation of crude oil from petroleum material.

"**Wastewater separator**": Any mechanical device used to separate crude oil and other material from produced water in petroleum production operations.

D. Requirements for Storage Tanks

1. No person shall place, hold or store any crude oil in any tank battery unless all storage tanks in the tank battery, including wash tanks, produced water tanks and wastewater separators, are equipped with a leak-free, properly installed, maintained, and operated vapor recovery system. The vapor disposal portion of the vapor recovery system shall consist of one of the following:

    a. A system which directs all vapors to a fuel gas system, a sales gas system, underground injection or to a flare that combusts reactive organic compounds.

    b. Any other system which processes all vapors and has a reactive organic compound vapor removal efficiency of at least 90% by weight.

2. Any tank exempt from Section D.1 of this rule pursuant to the provisions of Section B.1 shall comply with the following provisions:

    a. All tanks shall be equipped with a solid roof and shall be maintained in good condition.

    b. All tanks shall be equipped with leak-free hatches and pressure-vacuum relief valves. Each pressure-vacuum relief valve shall be set in accordance with appropriate recommendations of the American Petroleum Institute.

3. Portable tanks used to store or hold crude oil shall be equipped with both a closed cover that is impermeable to reactive organic compound vapors and a pressure-vacuum valve set by the manufacturer or in accordance with appropriate recommendations of the American Petroleum Institute.

4. All tanks shall be maintained liquid-tight.

E. Requirements for Produced Gas

1. The emissions of produced gas shall be controlled at all times using a properly maintained and operated system that directs all produced gas, except gas used in a tank battery vapor recovery system, to one of the following:

   a. A system handling gas for fuel, sale, or underground injection.

   b. A flare that combusts reactive organic compounds,

   c. A device with a reactive organic compound vapor removal efficiency of at least 90% by weight.

2. The provisions of Section E.1 shall not apply to wells which are undergoing routine maintenance.

F. Requirements - Recordkeeping

1. Any person wishing to operate pursuant to the provisions of Section B.1.a of this rule shall keep records to substantiate the applicability of that section. Such records shall include, for any crude oil, the vapor pressure in pounds per square inch absolute at the initial storage tank entry point. Records shall be made available to the Air Pollution Control Officer upon request.

2. Any person claiming an exemption pursuant to Section B.1.d or B.3 of this rule may be required to justify the exemption every twelve (12) months. Such justification shall be submitted to the Air Pollution Control Officer, in writing, upon request and shall include the results of an independent laboratory analysis.

3. Any person claiming an exemption pursuant to Section B.1.b or B.1.c for any tank shall maintain records indicating the number of days the tank has stored or held crude oil during the maintenance operation.

4. The operator shall maintain the following records annually:

   a. The type of organic liquid in each tank
   b. The maximum vapor pressure of the liquid, and
   c. The results of the inspections required by Section H of this rule.
   d. The American Petroleum Institute gravity of the oil in the tanks.

5. The operator shall maintain the records required by this rule in a readily accessible location for at least 5 years and shall make copies of the records available to the Control Officer upon oral or written request.

6. Any person claiming an idle tank exemption pursuant to Section B.5 of this rule shall keep records to substantiate the applicability of that section. Such records shall include annual measurement of gaseous organic compound concentrations in accordance with the definition herein of "out of service". Records shall be made available to the Air Pollution Control Officer upon request.

G. Requirements - Test Methods

1. The vapor removal efficiency in Sections D and E.1.c and the reactive organic compound emissions in Section B.3 shall be determined using California Air Resources Board Methods TP 202.1 and TP 203.1. The applicability of Methods TP 202.1 and TP 203.1 shall be determined as follows:

a. California Air Resources Board Method TP 202.1 applies to tanks receiving organic liquid by truck.

b. California Air Resources Board Method TP 203.1 applies to tanks receiving organic liquid other than by truck.

2. Vapor pressure of tank contents shall be determined as follows:

a. If the American Petroleum Institute gravity of the oil is greater than or equal to 20 degrees, then the vapor pressure shall be determined by measuring the Reid vapor pressure and converting the result to true vapor pressure at the tank's maximum liquid storage temperature.

1) Reid vapor pressure shall be measured using Test Method for Vapor Pressure for Petroleum Products, American Society for Testing and Materials Method D 323-94.

2) Conversion shall be done using either the American Petroleum Institute nomograph attached hereto as Attachment A or the conversion calculation specified in the oil and gas section of the California Air Resources Board document entitled "Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588" dated August 1989 and attached hereto as Attachment B. If the American Petroleum Institute nomograph scales do not encompass the values necessary for its use, conversion shall be done using Attachment B.

b. If the American Petroleum Institute gravity of the oil is below 20 degrees, then the vapor pressure shall be determined using the HOST Test Method. For purposes of this rule, vapor pressure shall include the vapor pressure of all hydrocarbon compounds, i.e., hydrocarbon compounds containing from one to ten carbon atoms, present in the oil sample as determined by gas chromatography.

c. The American Petroleum Institute gravity shall be determined according to American Society for Testing and Materials Method D287-82.

d. Separate samples shall be taken for American Petroleum Institute gravity and vapor pressure determinations. Sampling for American Petroleum Institute gravity shall be according to American Society for Testing and Materials Method D 4057-95.

e. An alternative test method may be used if it provides the same result for a given sample and is approved in advance by the United States Environmental Protection Agency and the California Air Resources Board for the purpose of determining vapor pressure of liquids of the type subject to this rule.

3. The reactive organic compound content of liquid in milligrams per liter shall be determined by purge and trap (United States Environmental Protection Agency Test Method 5030B or 5035) and analysis with gas chromatography by United States Environmental Protection Agency Test Method 8015B, modified for the analysis of all aliphatic and aromatic hydrocarbons, with calibration to include all hydrocarbon compounds containing from three to ten carbon atoms. Stock standards shall be prepared with appropriate gasoline fluids or other appropriate standards.

H. Requirements - Inspection

The operator shall visually inspect any roof and internal floating cover and its closures and seals at least once every 5 years, and shall perform a complete inspection of any roof or cover whenever the tank is emptied for non-operational reasons or at least every 5 years, whichever is more frequent.

I. Compliance Schedule

1. Light Oil Compliance Schedule.

    a. All operations in which this rule applies shall be in full compliance no later than July 25, 1995 except for existing wastewater tanks which must be in full compliance no later than July 25, 1996.

    b. Before any person installs emission control equipment for an existing tank pursuant to requirements of this rule, they shall submit an application for an Authority to Construct (ATC) no later than July 24, 1994, except for the installation of emission control equipment for existing wastewater tanks in which case they shall submit an application for an ATC no later than July 25, 1995. However, any person who elects to replace a tank that requires modification under this rule shall submit an ATC application no later than August 23, 1994.

    c. Any owner or operator claiming a Section B.1, B.2, B.3, or B.5 exemption shall obtain District-approved exempt status according to the following schedule.

        1). For existing tanks, within 90 days after January 25, 1994.

        2). For proposed tanks, upon application for an ATC.

2. Heavy Oil Compliance Schedule.

    a. All operations in which this rule applies shall be in full compliance no later than April 18, 2002.

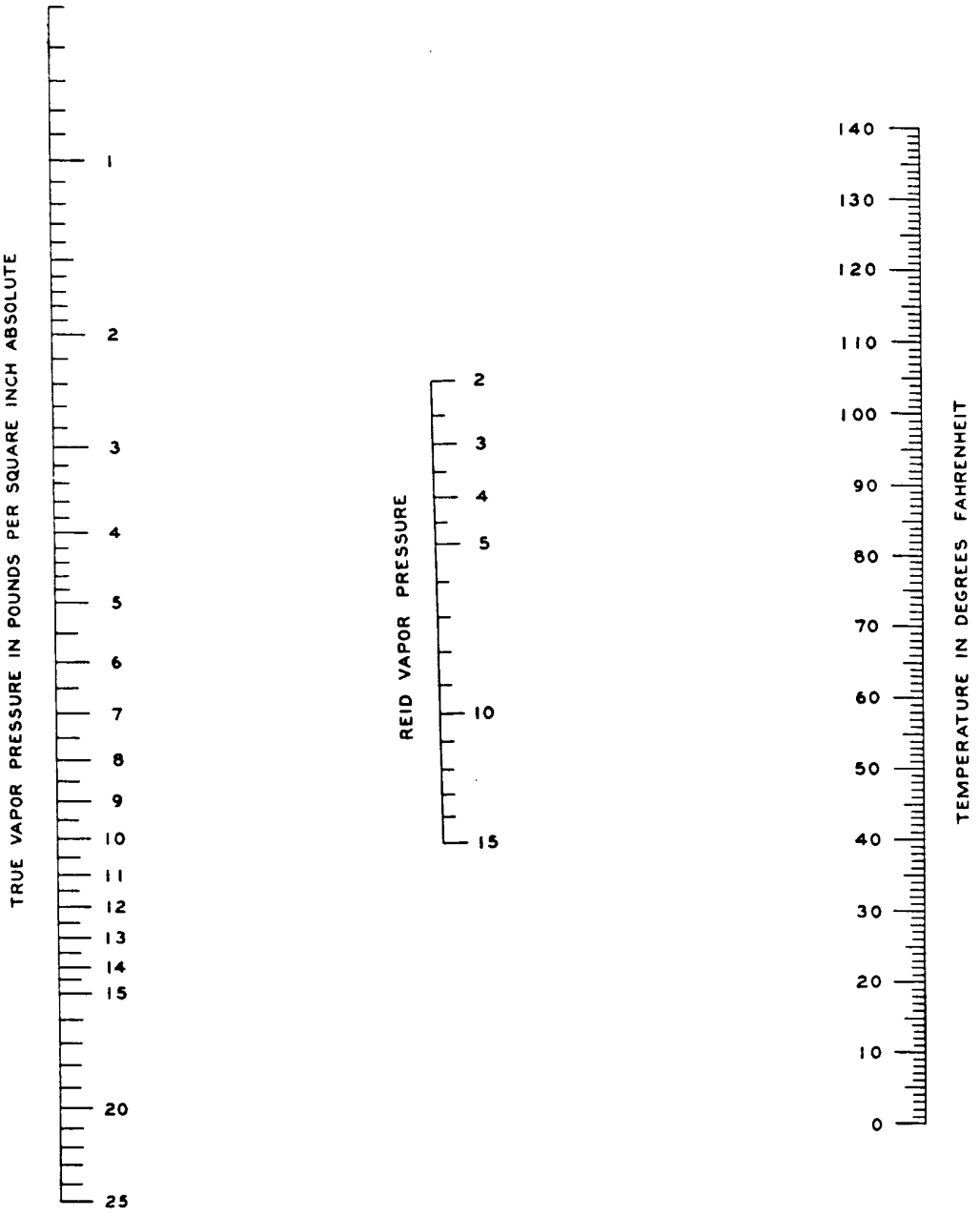
    b. Before any person installs emission control equipment for an existing tank pursuant to requirements of this rule, they shall submit an application for an Authority to Construct no later than April 18, 2001. However, any person who elects to replace a tank that requires modification under this rule shall submit an Authority to Construct application no later than May 18, 2001.

    c. Any owner or operator claiming a Section B.1, B.2, B.3, or B.5 exemption shall obtain District-approved exempt status according to the following schedule.

        1). For existing tanks, within 90 days after rule adoption, except for a B.5. exemption if previously submitted.

        2). For proposed tanks, upon application for an Authority to Construct.

Attachment A
American Petroleum Institute Nomograph
(API 2518)



True Vapor Pressures (*P*) of Crude Oils (2 psi to 15 psi RVP)

Attachment B
Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588
(Excerpt from pages 102, 103, and 114)

5. True Vapor Pressure (TVP)

True vapor pressure, the equilibrium partial pressure exerted by a volatile liquid, is perhaps the most difficult term in the breathing loss equation to calculate. A nomograph (included in Appendix E) relates TVP to both the Reid Vapor Pressure (RVP) and the storage temperature (T_s). RVP is the absolute vapor pressure of volatile crude oil and nonviscuous petroleum liquids. Numerically, the relationship between TVP, RVP, and temperature can be expressed by the following equation:

$$TVP = (RVP)e^{C_o(IRTEMP - ITEMP)} \quad (25)$$

Where:

C_o = Constant dependent upon the value of RVP
ITEMP = (1/559.69 °R)
IRTEMP = (1/(T_S + 459.69 °R))
T_S = Temperature of the stored fluid

The value of the constant term C_O depends on the given value of RVP.

Values of C_O for different RVP numbers are tabulated in Appendix C. It should be noted, however, that an error was discovered in the API nomograph calculated values of TVP so that the RVP was not equal to TVP at 100°F as was expected given the general definition of RVP. Using linear regression techniques, correction factors (C_F) were developed and should be added to the calculation values of TVP in order to obtain reasonable TVP numbers. The relationship between the three values is given as follows:

$$\text{Corrected TVP} = \text{Calculated TVP} + C_F \quad (26)$$

The correction factor was found to be dependent upon RVP according to the following equations:

If RVP < 3,

$$C_F = (0.04) \times (RVP) + 0.1 \quad (27)$$

If RVP > 3,

$$C_F = e^{[(2.3452061 \log (RVP)) - 4.132622]} \quad (28)$$

TABLE C-3 VALUES OF C_O FOR DIFFERENT RVP NUMBERS

RVP	C_O
0<RVP<2	-6622.5
2<RVP<3	-6439.2
RVP = 3	-6255.9
3<RVP<4	- 6212.1
RVP = 4	-6169.2
4<RVP<5	- 6177.9
RVP = 5	-6186.5
5<RVP<6	- 6220.4
RVP = 6	-6254.3
6<RVP<7	-6182.1
RVP = 7	-6109.8
7<RVP<8	- 6238.9
RVP = 8	-6367.9
8<RVP<9	- 6477.5
RVP = 9	-6587.9
9<RVP<10	- 6910.5
RVP = 10	-7234.0
10<RVP<15	- 8178.0
RVP>15	- 9123.2

RULE 326. STORAGE OF REACTIVE ORGANIC COMPOUND LIQUIDS. (Adopted 12/14/1993, revised 1/18/2001)

A. Applicability

This rule applies to equipment used to store reactive organic compound (ROC) liquids with a vapor pressure greater than 0.5 pounds per square inch absolute.

B. Exemptions

1. The provisions of this rule shall not apply to:

    a. Any storage tank having a capacity of less than or equal to 5,000 gallons.

    b. Any storage tank containing a reactive organic compound liquid having a vapor pressure less than 0.5 pounds per square inch absolute. Any person claiming exemption for a storage tank pursuant to this section must maintain adequate records demonstrating that the vapor pressure of all products stored in that tank is less than 0.5 pounds per square inch absolute. If a substance listed in Attachment A constitutes the entire contents of a tank, see Sections J.1.a and K.1 of this rule.

    c. Crude oil storage tanks subject to Rule 325, Crude Oil Production and Separation.

    d. Gasoline storage tanks with equal to or less than 40,000 gallons capacity which are subject to Rule 316, Storage and Transfer of Gasoline.

2. The provisions of Sections D.3 and D.4 shall not apply to an emergency standby tank not equipped with a vapor loss control device when:

    a. The tank is drained of reactive organic compound liquids, or

    b. A breakdown, as defined by Rule 505, occurs to the primary tank and the requirements of Rule 505 are met.

3. The provisions of Sections E, F, G and H shall not apply to out-of-service or empty storage tanks when undergoing cleaning, stock change, tank and roof repairs or removal of contaminated stock provided that:

    a. The requirements of Sections D, E & F of Rule 343 (Petroleum Storage Tank Degassing) are met, or

    b. The following are accomplished:

        1) At least 72 hours prior to such work being done, written notice is received by the APCO.

        2) The tank is in compliance with these rules prior to notification.

        3) For floating roof tanks, when the floating roof is resting on the leg supports, the process of filling, emptying, and refilling shall be continuous and shall be accomplished as rapidly as possible. Emissions shall be minimized during the process of filling, emptying, and refilling.

4) Vapor recovery shall be used on tanks so equipped during filling or flushing and emptying procedures prior to opening tanks for cleanout.

5) District is notified when returning a tank to service after the above listed work has been completed.

4. The provisions of Sections E, F, G and H shall not apply to in-service floating roof tanks undergoing preventive maintenance, including but not limited to roof repair, primary seal inspection, or removal and installation of a secondary seal, provided that the following conditions are met:

   a. At least 72 hours prior to such work being done, written notice is received by the APCO.

   b. The tank is in compliance with these rules prior to notification.

   c. Product shall move neither in nor out of the storage tank and emissions shall be minimized.

   d. If an Authority to Construct is required, in accordance with Rule 201, then one shall be obtained prior to commencing work.

   e. The time of exemption allowed under this section shall not exceed 72 hours.

5. The provisions of Section E.3 shall not apply to in-service tanks undergoing preventive maintenance, including but not limited to repair of regulators, fittings, deck components, hatches, valves, flame arrestors, or compressors, provided that the following conditions are met:

   a. At least 72 hours prior to such work being done, written notice is received by the APCO.

   b. The tank is in compliance with these rules prior to notification.

   c. District is notified when preventive maintenance work is completed.

   d. Emissions are minimized during maintenance operations.

   e. The time of exemption allowed under this section shall not exceed 24 hours.

6. This rule shall not apply to components, as that term is defined in Rule 331 (Fugitive Emissions Inspection and Maintenance), which are subject to inspection and maintenance under Rule 331.

7. This rule shall not apply to pressure vessels.

C. Definitions

See Rule 102 for definitions not restricted to interpretation of this rule.

"**Alternate test method**": A new method for testing that is not referenced in this rule or which involves major changes to a referenced test method.

"**Appropriate analyzer**": A hydrocarbon analyzer that meets the requirements of United States Environmental Protection Agency Reference Method 21 and is calibrated with methane.

"**Automatic Bleeder Vent**": A floating roof vent that automatically vents air only during initial filling operations and during subsequent landings of the roof.

"**Emergency Standby Tank**": A tank which is not used (filled or partially filled) more than twice in any 12 (twelve) month period and for which such use is reported to the Control Officer within 24 hours of the start of such use.

"Heavy Oil": Crude oil with American Petroleum Institute gravity less than twenty degrees.

"HOST Test Method": The "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatography", approved by the United States Environmental Protection Agency and any subsequent updates approved by the United States Environmental Protection Agency.

"**Leak**":

a. A leak exists when a reading in excess of 10,000 ppm, as methane, above background, is obtained using an appropriate portable hydrocarbon analyzer and when sampling is performed according to the procedures specified in United States Environmental Protection Agency Method 2l - Appendix A, 40 CFR Section 3.2.1., or

b. A leak exists when the dripping of liquid containing reactive organic compounds at a rate of more than three (3) drops per minute is observed.

A "leak" is not a gaseous emission from pressure relief devices on tanks or delivery vessels when the process pressure exceeds the limit specified for the device.

"Light Oil": Crude oil with American Petroleum Institute gravity greater than or equal to twenty degrees.

"**Out of Service**": means that no liquid is present in the tank, it is configured to allow easy verification of such emptiness by inspection, and no concentrations of gaseous organic compounds greater than 1000 (one thousand) ppmv can be detected outside the tank using United States Environmental Protection Agency Reference Method 21.

"**Pressure vessel**": Vessels rated, as indicated by an ASME pressure rating stamp, and operated to contain normal working pressures of at least 15 psig without vapor loss to the atmosphere.

"**Preventive Maintenance**": means a regularly scheduled course of procedure designed to prevent equipment failure or decline in function.

"**Submerged fill pipe**": Any fill pipe or discharge nozzle which meets any of the following conditions:

a. The discharge opening is entirely submerged when the liquid level is six (6) inches above the bottom of the container.

b. When applied to a container which is loaded from the side, the discharge opening is entirely submerged when the liquid level is 18 inches above the bottom of the container.

c. When applied to a container which is loaded from the bottom, the discharge opening is entirely submerged when the liquid level is six (6) inches above the bottom of the container.

"**Tank**": A container, constructed primarily of nonearthen materials, used for the purpose of storing or holding any organic liquid.

"**Vapor pressure**": The vapor pressure measured as described in Section K.1 of this rule.

"**Vapor recovery system**": Any reactive organic compound vapor control system which is designed to prevent the release or venting of reactive organic compound gases to the atmosphere under normal operating conditions.

D. Requirements - Emission Reduction

1. A person shall not store crude oil or other reactive organic compound liquids in any storage tank with a capacity less than, or equal to 40,000 gallons unless such tank is equipped with at least one of the following:

   a. A submerged fill pipe, or

   b. One of the vapor loss control devices listed in Section E.

2. A person shall not store crude oil or reactive organic compound liquids with a vapor pressure equal to or greater than 1.5 pounds per square inch absolute in any above ground storage tank with a capacity equal to or greater than 10,000 gallons, and less than 20,000 gallons, unless such tank is equipped with one of the following:

   a. A pressure-vacuum relief valve with verifiable pressure and vacuum settings in accordance with appropriate recommendations of the American Petroleum Institute. The pressure-vacuum relief valve shall be properly installed, properly maintained, and in good operating order; or

   b. One of the vapor loss control devices in Section E.

3. A person shall not store crude oil or reactive organic compound liquids with a vapor pressure equal to or greater than 1.5 pounds per square inch absolute in any storage tank with a capacity of 20,000 gallons or greater but less than 40,000 gallons without using one of the vapor control devices in Section E.

4. A person shall not store crude oil or reactive organic compound liquids with a vapor pressure equal to or greater than 0.5 pounds per square inch absolute in any storage tanks with a capacity equal to or greater than 40,000 gallons without using one of the vapor control devices in Section E.

5. A person shall not store organic liquids with a vapor pressure greater than 11 pounds per square inch absolute in any tank unless such tank is:

   a. A pressure vessel, or

   b. Designed and equipped with a vapor loss control device in Section E.3 or E.4.

   A person shall not use an external floating roof tank or an internal floating roof tank to store organic liquids with a vapor pressure of 11 pounds per square inch absolute or greater.

E. Requirements for Vapor Loss Control Devices

The following are the vapor loss control devices that satisfy the storage tank requirements of Section D.

1. External Floating Roof: A floating roof, consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is properly installed, properly maintained and in good operating order. External floating roof seals shall comply with the criteria specified in Sections F and G.

2. Internal Floating Roof: A fixed roof tank with an internal-floating-type cover consisting of a pan, pontoon, or double-deck that rests on the liquid surface and is properly installed, properly maintained and in good operating order. Internal floating roof seals shall comply with the criteria specified in Sections F and H.

3. Vapor Recovery System: A leak-free vapor recovery system, consisting of a system capable of collecting all reactive organic compound vapors and gases, and one of the following: a vapor return system handling natural gas for fuel, sale, or underground injection or a disposal system capable of processing such vapors and gases, so as to prevent their emission to the atmosphere at a vapor removal efficiency of at least 95% by weight.

   Vapor recovery systems shall comply with the following requirements:

   a. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling.

   b. All piping, valves and fittings shall be designed and constructed to operate in a leak-free condition, and shall be maintained and operated in a leak-free condition such as to minimize the release of reactive organic compound vapors.

   c. Pressure vacuum valves on above ground tanks shall be set in accordance with appropriate recommendations of the American Petroleum Institute, shall be properly installed, properly maintained, and in good operating order, and shall remain in a leak-free condition except when the operating pressure exceeds the valve set pressure.

   Where a tank is equipped with both an operational vapor recovery system and an internal floating roof, the operator shall meet the requirements of Section E.3 of this rule and shall not be required to comply with Sections F, H and I.1.

4. Other Vapor Loss Control Device: Any other equipment having a vapor removal efficiency of at least 95% by weight, of reactive organic compound vapors, provided

   a. said equipment consists of an enclosure or intake designed to collect and deliver all emissions and a control device to remove reactive organic compounds from the delivered emissions, and

   b. an application for installation of such equipment and a testing protocol to show 95% vapor removal efficiency are submitted to and approved by the Air Pollution Control Officer, the California Air Resources Board and the United States Environmental Protection Agency.

F. Requirements for All Closure Devices

The closure device on any external floating roof tank or any internal floating roof tank shall meet the following criteria:

1. Secondary seals shall extend from the roof to the tank shell, shall not be attached to primary seals, and shall not be shoe-mounted.

2. All openings in the roof, except pressure vacuum valves and automatic bleeder vents, shall provide a projection at least two (2) inches below the liquid surface to prevent belching of liquid and to reduce escaping vapors. All openings and fittings shall be covered and shall have gaskets at all times with no visible gap, except when in use. For inaccessible openings on internal floating roof tanks, there shall be no visible gaps as viewed from the fixed roof manway, except when the opening is in use.

3. Pressure-vacuum valves shall be set in accordance with appropriate recommendations of the American Petroleum Institute, shall be properly installed, properly maintained, and in good

operating order, and shall remain in a leak-free condition except when operating pressure exceeds the valve set pressure.

4. Solid sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall meet the following conditions:

   a. The well shall provide a projection at least two (2) inches below the liquid surface.

   b. The well shall be equipped with a cover, seal or lid, which shall at all times be in a closed position with no gap exceeding 1/8 inch, except when the well is in use.

   c. The gap between the well and the roof shall be added to the gaps measured to determine compliance of the secondary seal and in no case shall exceed 1/2 inch.

5. Slotted sampling or gauging wells shall meet the following conditions:

   a. The well shall provide a projection at least two (2) inches below the liquid surface.

   b. The well shall have an internal float designed to minimize the gap between the float and the well, provided that the gap in no case exceeds 1/2 inch.

   c. The gap between the well and the roof shall be added to the gaps measured to determine compliance of the secondary seal and in no case shall exceed 1/2 inch.

6. Any emergency roof drain that drains back to the stored liquid shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least 90% of the area of the opening.

7. Any metallic shoe-type seal for which an Authority to Construct was granted on or after October 4, 1989 shall meet the following conditions:

   a. One end of the shoe shall extend at least two (2) inches into the stored liquid and the other end shall extend a minimum vertical distance of 24 inches above the liquid surface.

   b. The gap between the shoe and tank wall shall not exceed three (3) inches for a welded tank or five (5) inches for a riveted tank at any point from the liquid surface to 18 inches above it.

8. Any external or internal floating roof for which an Authority to Construct was granted on or after October 4, 1989 shall have at least four (4) ninety degree radial vapor barriers to minimize wind effects. An alternative device may be approved in writing by the APCO provided such device is demonstrated to be equivalent in minimizing wind effects.

G. Requirements for External Floating Roofs

External floating roofs shall meet the following conditions in addition to the closure device requirements in Section F.

1. There shall be no holes or tears in, or openings in the seal or seal fabric which allow the emission of reactive organic compound vapors through the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, seal fabric and secondary seal.

2. Welded Tanks with Primary Metallic Shoe Seals:

a. The cumulative length of all gaps between the primary seal and the tank shell exceeding 1/2 inch shall not be more than 10%, and exceeding 1/8 inch shall not be more than 40% of the tank circumference.

b. No gap between the tank shell and the primary seal shall exceed 1-1/2 inches; no continuous gap greater than 1/8 inch shall exceed 10% of the circumference of the tank.

c. The cumulative length of all gaps between the secondary seal and the tank shell exceeding 1/8 inch shall not be more than 5% of the tank circumference.

d. No gap between the tank shell and the secondary seal shall exceed 1/2 inch.

e. The secondary seal shall allow easy insertion of probes up to 1-1/2 inches in width in order to measure gaps in the primary seal.

3. Tanks with Primary Resilient-Toroid Seals:

a. The cumulative length of all gaps between the tank shell and the primary or secondary seal exceeding 1/8 inch shall not be more than 5% of the circumference of the tank.

b. No gap between the tank shell and the primary or secondary seal shall exceed 1/2 inch.

c. The secondary seal shall allow easy insertion of probes up to 1/2 inch in width in order to measure gaps in the primary seal.

d. The primary resilient toroid seal shall be liquid-mounted.

4. Riveted Tanks with Primary Metallic Shoe Seals:

a. Gaps between the tank shell and the primary seal shall not exceed 2-1/2 inches. The cumulative length of all primary seal gaps exceeding 1-1/2 inches shall be not more than 10% of the circumference of the tank.

b. The secondary seal shall consist of at least two sealing surfaces, such that the sealing surfaces prevent the emission of reactive organic compounds around the rivets. Serrated sealing surfaces are allowable if the length of serration does not exceed 6 inches. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. The cumulative length of all secondary seal gaps exceeding 1/8 inch shall be not more than five (5) percent of the circumference.

c. The secondary seal shall allow easy insertion of probes up to 1-1/2 inches in width in order to measure gaps in the primary seal.

5. Welded Tanks with Zero Gap Secondary Seals: Any secondary seal where installation or retrofit on a welded tank for which an Authority to Construct was granted on or after October 4, 1989 shall be a zero gap secondary seal. A secondary seal shall be considered to be retrofitted if at least a cumulative fifty percent of the circumference of the seal is replaced on or after October 4, 1989. A zero gap secondary seal shall meet the following conditions:

a. No gap between the tank shell and the primary seal shall exceed 1-1/2 inches. No continuous gap in the primary seal greater than 1/8 inch shall exceed 10% of the circumference of the tank. The cumulative length of all primary seal gaps exceeding 1/2 inch shall be not more than 10% of the circumference and the cumulative length of all primary seal gaps exceeding 1/8 inch shall be not more than 40% of the circumference.

b. There shall be no visible or measurable gap between the tank shell and the secondary seal, excluding gaps less than two (2) inches from vertical weld seams.

6. Primary Seal Inspection for External Floating Roof Tanks (Selected Locations): The primary seal envelope shall be made available for unobstructed inspection by the APCO on an annual basis at a minimum of four locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, at least eight (8) such locations shall be made available; in all other cases, a minimum of four (4) such locations shall be made available, except if any violations are suspected, the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference.

7. Primary Seal Inspection for External Floating Roof Tanks (Full Circumference): For tanks with secondary seals, the primary seal envelope shall be made available for unobstructed inspection by the APCO for the full circumference at the following times:

   a. Prior to installation of the secondary seal.

   b. At least every five (5) years, or every ten (10) years if the seal is a zero gap secondary seal which is installed pursuant to Section G.5.

   c. If the secondary seal is voluntarily removed by the owner or operator, it shall be made available for such inspection at that time. The owner or operator shall provide notification to the APCO no less than 72 hours prior to voluntary removal of the secondary seal.

H. Requirements for Internal Floating Roofs

Internal floating roofs shall meet the following conditions in addition to the closure device requirements in Section F. However, where a tank is equipped with both an operational vapor recovery system and an internal floating roof, the operator shall meet the requirements of Section E.3 of this rule and shall not be required to comply with Sections F, H and I.1.

1. For any fixed roof tank with a new or replaced internal floating type cover for which an Authority to Construct was granted on or after October 4, 1989, the closure device shall consist of one of the following:

   a. A liquid mounted primary seal only, mounted in full contact with the liquid in the annular space between the tank shell and floating roof, or

   b. Two seals, one above the other, the one below shall be referred to as the primary seal and the one above shall be referred to as the secondary seal.

2. There shall be no holes or tears in, or other openings which allow the emission of reactive organic compound vapors through the primary or secondary seals.

3. For any fixed roof tank using an internal floating-type cover, the internal floating-type cover shall be made available for inspection each time the tank is emptied and gas freed. Visual inspections through the manholes or roof hatches on the fixed roof shall be made available on an annual basis, provided such an inspection can be conducted safely. The APCO shall be notified at least 72 hours in advance of each gas freeing.

I. Requirements for Inspection and Reporting

1. For all primary seals, actual gap measurements shall be recorded upon installation or replacement of primary seals, or prior to installation of secondary seals, and at least once every five (5) years thereafter. If the secondary seal is a "zero gap seal" as per Section G.5, then actual gap measurements of the primary seal shall be recorded at least once every 10 years. For all secondary seals, actual gap measurements shall be recorded on an annual basis.

2. The results of each inspection shall be reported to the APCO within 30 calendar days after the inspection date.

3. The owner or operator of any storage tank subject to this rule shall submit the following information to the APCO for each storage tank subject to this rule:

    a. The location of the storage tank and District Permit to Operate number for the storage tank.

    b. The product and vapor pressure of the product typically stored.

    c. The current compliance status of the storage tank with respect to the requirements of this rule.

    d. For storage tanks with external floating roofs or internal floating roofs, the type of tank (welded or riveted), and the type of roof seals (primary and secondary).

J. Requirements - Recordkeeping

1. The operator of any tank subject to this rule shall maintain the following records:

    a. Type of liquid stored in each tank. The vapor pressure ranges of such liquids are required if records immediately available do not establish that the liquid is a substance listed in Attachment A and kept below the temperature listed therein for that substance.

    b. The inspections reports required by Section I. Such records shall contain, at a minimum, the following information:

        1) Date of inspection and initials of inspector.

        2) Actual gap measurements between the tank shell and seals.

        3) Data, supported by calculations as necessary, to demonstrate compliance with the requirements of this rule.

        4) Any corrective actions or repairs taken to comply with the requirements of this rule and the date these actions were taken.

    c. The maintenance records where excess emissions occur during operations exempted by Sections B.3, B.4, and B.5. These records contain, at a minimum, the following:

        1) Permit number, tank identification, type of vapor controls, and initials of personnel performing maintenance.

        2) Description of specific maintenance procedure performed.

3) Estimate of excess emissions caused by maintenance procedure and how determined.

4) Start and finish times and dates of maintenance procedure.

d. The breakdown records where excess emissions occur during use of emergency standby tanks allowed by Section B.2.b. These records shall contain, at a minimum, date, time and duration of breakdown and calculation of excess emissions resulting from the breakdown.

2. Records shall be maintained for a period of at least five (5) years from the date of each entry, and such records shall be made available to the APCO upon request.

K. Requirements for Test Methods

1. Vapor pressure of tank contents shall be determined as follows:

a. If the American Petroleum Institute gravity of the oil is greater than or equal to 20 degrees, then the vapor pressure shall be determined by measuring the Reid vapor pressure and converting the result to true vapor pressure at the tank's maximum liquid storage temperature.

1) Reid vapor pressure shall be measured using Test Method for Vapor Pressure for Petroleum Products, American Society for Testing and Materials Method D 323-82.

2) Conversion shall be done using either the American Petroleum Institute nomograph attached hereto as Attachment B or conversion shall be done using the conversion calculation specified in the oil and gas section of the California Air Resources Board document entitled "Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588" dated August 1989 and attached hereto as Attachment C. If the American Petroleum Institute nomograph scales do not encompass the values necessary for its use, conversion shall be done using Attachment B.

b. If the American Petroleum Institute gravity of the oil is below 20 degrees, then the vapor pressure shall be determined using the HOST Test Method. For purposes of this rule, vapor pressure shall include the vapor pressure of all hydrocarbon compounds, i.e., hydrocarbon compounds containing from one to ten carbon atoms, present in the oil sample as determined by gas chromatography.

c. The American Petroleum Institute gravity shall be determined according to American Society for Testing and Materials Method D 287-82.

d. Separate samples shall be taken for American Petroleum Institute gravity and vapor pressure determinations. Sampling for American Petroleum Institute gravity shall be according to American Society for Testing and Materials Method D 4057-88.

e. An alternative test method may be used if it provides the same result for a given sample and is approved in advance as a source-specific SIP revision by the United States Environmental Protection Agency and the California Air Resources Board for the purpose of determining vapor pressure of liquids of the type subject to this rule.

f. An organic liquid listed in Attachment A shall be deemed to be in compliance with the appropriate vapor pressure limits for the tank in which it is stored provided the actual storage temperature does not exceed the corresponding maximum temperature listed.

2. The test methods used for measuring the vapor removal efficiency in Sections E.3 and E.4 shall be the California Air Resources Board Methods TP 202.1 and TP 203.1. The applicability of Methods TP 202.1 and TP 203.1 shall be determined as follows:

   a. California Air Resources Board Method TP 202.1 applies to tanks receiving organic liquid by truck.

   b. California Air Resources Board Method TP 203.1 applies to tanks receiving organic liquid other than by truck.

3. The test method used for detecting and measuring leaks is United States Environmental Protection Agency Reference Method 21. The analyzer shall be calibrated with methane.

L. Compliance Schedule

1. Any person required to modify or replace an existing heavy oil storage tank to comply with this rule shall:

   a. Sample for true vapor pressure in accordance with the test methods in Section K.1.b. of this rule and submit the results to the District no later than April 18, 2001.

   b If true vapor pressure results do not qualify for an exemption pursuant to Section B. of this rule, submit a complete Authority to Construct (ATC) application to the APCO no later than April 18, 2001.

   c. Submit to the APCO an application for a Permit to Operate and demonstrate final compliance no later than April 18, 2002.

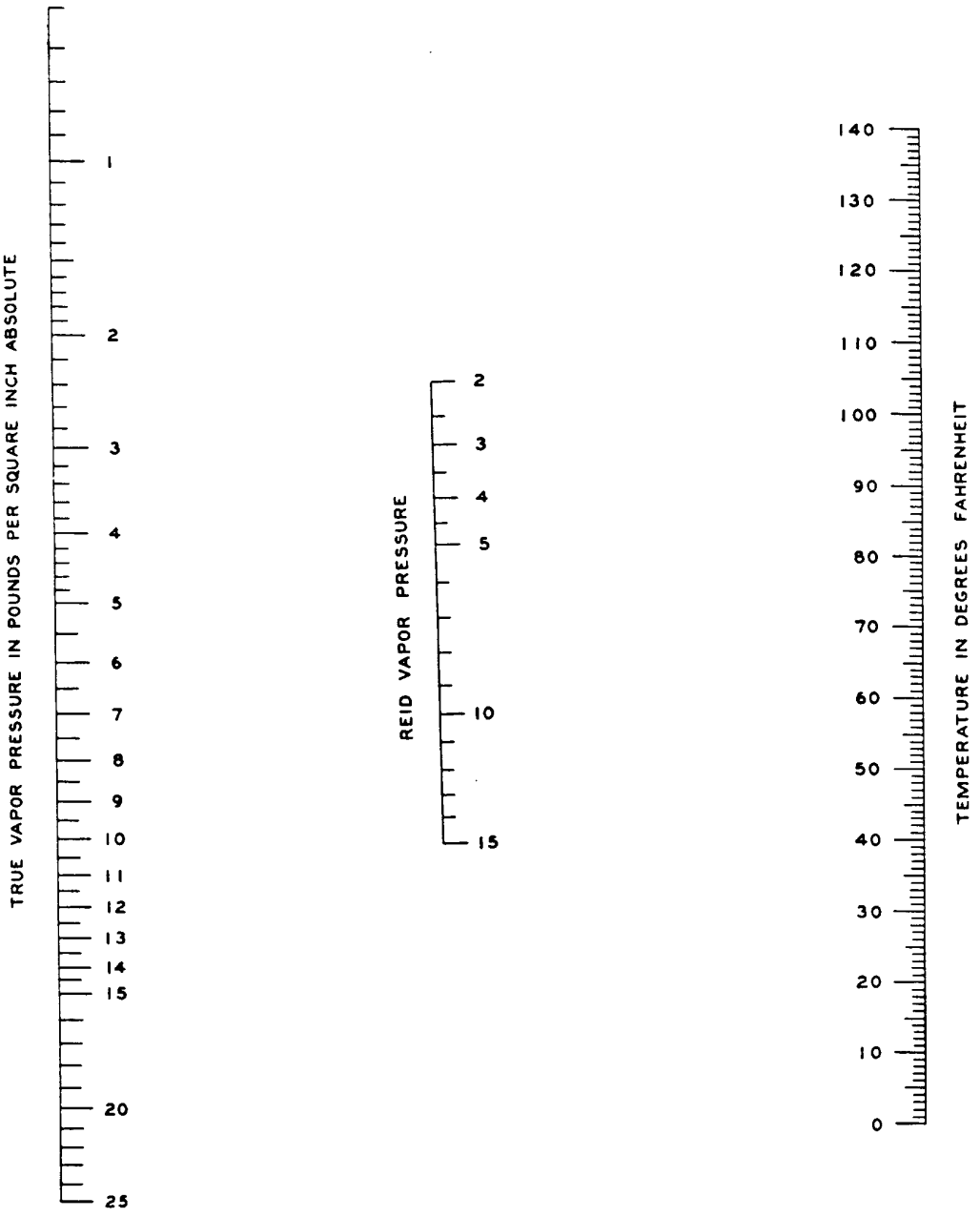
2. a. No later than June 14, 1994 the owner or operator of any light oil storage tank subject to this rule shall submit the information required by Section I.3.

   b. No later than April 18, 2002, the owner or operator of any heavy oil storage tank subject to this rule shall submit the information required by Section I.3.

Attachment A
Maximum Allowable Storage Temperatures Versus Vapor Pressure

Organic Liquids/Compounds	Maximum Temp. °F Not to Exceed	
	0.5 psia	1.5 psia
Middle Distillates		
Kerosene	195	250
Diesel	230	290
Gas Oil	249	310
Stove Oil	275	340
Jet Fuels		
JP-1	165	230
JP-3	--	25
JP-4	20	68
JP-5	205	260
JP-7	205	260
JP-8	167	222
Fuel Oil		
No. 1	195	250
No. 2	230	290
No. 3	249	310
No. 4	275	340
No. 5	380	465
Residual	405	--
No. 6	450	--
Asphalts		
60-100 pen.	490	550
120-150 pen.	450	500
200-300 pen.	360	420
Acetone	--	35
Acrylonitrile	30	62
Benzene	34	70
Carbon Disulfide	--	10
Carbon Tetrachloride	20	63
Chloroform	--	40
Cyclohexane	30	65
1,2 Dichloroethane	35	75
Ethyl Acetate	38	70
Ethyl Alcohol	55	85
Isopropyl Alcohol	62	95
Methyl Alcohol	30	62
Methyl Ethyl Ketone	30	70
Toluene	75	120
Vinylacetate	30	65

Attachment B
American Petroleum Institute Nomograph
(API 2518)



True Vapor Pressures (*P*) of Crude Oils (2 psi to 15 psi RVP)

Attachment C
Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588
(Excerpt from pages 102. 103, and 114)

5. True Vapor Pressure (TVP)

True vapor pressure, the equilibrium partial pressure exerted by a volatile liquid, is perhaps the most difficult term in the breathing loss equation to calculate. A nomograph (included in Appendix E) relates TVP to both the Reid Vapor Pressure (RVP) and the storage temperature (T_s). RVP is the absolute vapor pressure of volatile crude oil and nonviscuous petroleum liquids. Numerically, the relationship between TVP, RVP, and temperature can be expressed by the following equation:

$$TVP = (RVP)e^{C_O(IRTEMP - ITEMP)} \quad (25)$$

Where:

C_o	=	Constant dependent upon the value of RVP
ITEMP	=	(1/559.69 °R)
IRTEMP	=	(1/(T_S + 459.69 °R))
T_S	=	Temperature of the stored fluid

The value of the constant term C_O depends on the given value of RVP.

Values of C_O for different RVP numbers are tabulated in Appendix C. It should be noted, however, that an error was discovered in the API nomograph calculated values of TVP so that the RVP was not equal to TVP at 100°F as was expected given the general definition of RVP. Using linear regression techniques, correction factors (C_F) were developed and should be added to the calculation values of TVP in order to obtain reasonable TVP numbers. The relationship between the three values is given as follows:

$$\text{Corrected TVP} = \text{Calculated TVP} + C_F \quad (26)$$

The correction factor was found to be dependent upon RVP according to the following equations:

If RVP < 3,

$$C_F = (0.04) \times (RVP) + 0.1 \quad (27)$$

If RVP > 3,

$$C_F = e^{[(2.3452061 \log (RVP)) - 4.132622]} \quad (28)$$

TABLE C-3 VALUES OF C_O FOR DIFFERENT RVP NUMBERS

RVP	C_O
0<RVP<2	-6622.5
2<RVP<3	-6439.2
RVP = 3	-6255.9
3<RVP<4	- 6212.1
RVP = 4	-6169.2
4<RVP<5	- 6177.9
RVP = 5	-6186.5
5<RVP<6	- 6220.4
RVP = 6	-6254.3
6<RVP<7	-6182.1
RVP = 7	-6109.8
7<RVP<8	- 6238.9
RVP = 8	-6367.9
8<RVP<9	- 6477.5
RVP = 9	-6587.9
9<RVP<10	- 6910.5
RVP = 10	-7234.0
10<RVP<15	- 8178.0
RVP>15	- 9123.2

10/18/79

RULE 327. ORGANIC LIQUID CARGO VESSEL LOADING.

A. Definitions.

1. "Barge" means any tank vessel not equipped with means of self-propulsion.

2. "Marine Terminal" means all permanent facilities used in whole or in part to load organic liquid cargo into organic liquid cargo vessels, excepting existing barge loading facilities as long as their annual throughput, as of the adoption of this Rule, does not increase.

3. "Organic Liquid Cargo" means organic liquid loaded into a vessel to be transported from one location to another location as a commodity.

4. "Organic Liquid Cargo Vessel" means any tanker, freighter, barge, vessel, boat or ship used for the bulk transport of more than 250 barrels of organic liquid cargo.

B. Applicability.

The provisions of this Rule shall apply to the loading of organic liquid cargo into organic liquid cargo vessels from any marine terminal.

C. Coast Guard Rules.

Nothing in this Rule shall be construed as superseding or conflicting with United States Coast Guard Regulations. Any person who believes that any provision of this Rule supersedes or conflicts with United States Coast Guard Regulations shall submit documentation to the Control Officer a minimum of 90 days prior to the scheduled compliance date for that provision.

D. Emissions from Loading Organic Liquid.

1. No person shall load or allow the loading of organic liquid cargo into any organic liquid cargo vessel from any marine terminal unless the weight of non-methane organic vapors emitted during loading is reduced by the application of the best control technology available at the time specified in the final control plan submitted to the Control Officer.

2. The owner or operator of any marine terminal used to load any organic liquid cargo into any organic liquid cargo vessel, or the owner or operator of such vessel, shall demonstrate, to the satisfaction of the Control Officer, by emission tests, engineering evaluation, or other means of reasonable precision and accuracy that:

a. The control practices or equipment selected to achieve compliance will reduce the organic vapor emissions to the extent required by section B.1; and

b. There is a reliable methodology for determining the effectiveness of such control practices or equipment on a routine basis.

E. Record Keeping.

1. The owner or operator of any marine terminal shall keep operating records regarding the loading activities for that terminal. These records shall be maintained at the respective marine terminals and shall be made available to the Control Officer upon request. These records shall include, but are not limited to:

a. The date(s) of each loading event, the name of the vessel being loaded, the company immediately responsible for the operation of the vessel and the legal owner of the vessel;

b. The type and amount of organic liquid cargo loaded into each vessel; and

c. A written document signed by both the person responsible for the operation of the vessel and the person responsible for the operation of the marine terminal which attests to the fact that their respective portions of the organic vapor control system, required by section B.1 of this Rule, was operating as designed during each loading event.

F. Compliance Schedule.

1. Any owner or operator subject to the provisions of this Rule shall comply with the following increments of progress following the promulgation of safety criteria for organic vapor emission control systems by the United States Coast Guard.

a. Within 12 months - submit final control system plans to the United States Coast Guard for approval.

b. Within 24 months - submit a final control plan which describes the steps that will be taken to achieve compliance with the provisions of this Rule to the Control Officer. Such control plans shall include specific informational statements that:

1) All vessels loading through this terminal shall have a designed system which is compatible with that of the terminal; and

2) The vessel operators are aware of the design and operational requirements of the marine terminal; and

3) Terminal operators will not service a vessel which is not compatible with their recovery system.

c. Within 30 months - negotiate and sign all necessary contracts for emission control systems or issue orders for the purchase of component parts to accomplish emission control. The proposed schedule of equipment installation by vessel name and terminal location shall be provided to the Control Officer at this time.

d. Within 54 months - complete construction or installation of emission control equipment.

e. By July 1, 1985 assure final compliance with the provisions of this Rule.

2. The non-availability of specific emission control equipment or of a specific emission control system or method to be used for the purpose of achieving compliance with any provision of this Rule shall not constitute relief from such provision if other types of emission control equipment, systems, or methods acceptable to the Control Officer are available.

3. Any organic liquid cargo vessel or marine terminal, operating after July 1, 1985, shall be operated in full compliance with the provisions of this Rule.

5/23/79

RULE 328. CONTINUOUS EMISSION MONITORING.

A. Definitions:

Definitions used shall be those given in 40 CFR, Part 51, or equivalent definitions established by mutual agreement of the District, the California Air Resources Board, and Federal Environmental Protection Agency.

B. Exemptions:

Exemptions may be granted to sources:

1. Complying with new source performance standards promulgated under 40 CFR Part 60 pursuant to Section III of the Clean Air Act; or

2. Not subject to an applicable emission standard of the State Implementation Plan; or

3. Scheduled for retirement within five (5) years if written evidence and guarantees are provided.

4. Methods, specifications and standards deemed equivalent by the District, the California Air Resources Board and the Federal Environmental Protection Agency may be substituted for those specified for data reduction, monitoring systems, calibration gas, cycling times and equipment performance specifications.

C. Requirements:

1. The Control Officer shall require the owner or operator of each stationary source (listed in a. through f. below) to install, calibrate, operate and maintain all monitoring equipment necessary for continuously monitoring the pollutants specified. Monitoring and recording shall begin by October 27, 1978.

a. Fossil fuel fired steam generators with a heat input of 63 million kilogram calories (250 million BTU) or more per hour and a use factor of at least 30 percent, when such facility is subject to an emission standard of the State Implementation Plan for the pollutant in question.

1) Continuous monitors required:

a) Nitrogen oxides

b) Oxygen or carbon monoxide

c) Sulfur dioxide (only for steam generators utilizing control equipment to reduce emissions to District requirements).

d) Opacity monitoring - opacity monitoring shall not be required where gaseous fuel is the only fuel burned, or where oil or a mixture of gas and oil is the only fuel burned and the source can meet particulate and opacity regulation without collection equipment and the source has not been found, through administrative or judicial proceedings, to be in violation of regulations for nuisance, opacity or particulate emissions.

b. New nitric acid plants shall continuously monitor nitrogen oxides.

c. Sulfuric acid plants shall continuously monitor sulfur dioxide.

d. New fluid bed cokers with feed rates greater than 1,590,000 liters (10,000 Bbls) per day shall continuously monitor sulfur dioxide.

e. CO boilers of regenerators of fluid bed catalytic cracking units shall continuously monitor sulfur dioxide.

f. Fluid bed catalytic cracking units shall continuously monitor sulfur dioxide and opacity.

2. The Control Officer may require the owner or operator of a stationary source to install, calibrate, operate and maintain in good working order equipment for continuously monitoring and recording emissions from a stationary source, provided that:

a. The stationary source emits, into the atmosphere, 2.3 kilograms (5 lbs/hr) or more of nonmethane hydrocarbons, oxides of nitrogen, oxides of sulfur, reduced sulfur compounds or particulate matter or 40 lbs/hr of any contaminant and;

b. The California Air Resources Board has determined and specified, pursuant to Health and Safety Code, Sections 42701 and 42702, that monitoring equipment is available, technologically feasible, and economically reasonable for the type of stationary source in question; and

c. After considering all of the relevant circumstances, the Control Officer has determined that requiring such monitoring equipment is necessary and reasonable. In making such determination, the Control Officer shall, without limitations, consider the economic impact on the stationary source and the extent to which similar emission information may be obtained through other less costly methods or reporting procedures with comparable accuracy and control.

3. Opacity monitoring will not be required until the California Air Resources Board and the Federal Environmental Protection Agency agree on performance requirements.

4. All monitoring devices shall be equipped with a continuously operating chart recorder. The chart recordings shall be annotated with date, time and operator's initials at the following times:

a. At the beginning of each work shift

b. At the beginning of each start-up and shut-down of the process equipment.

c. Anytime any change is made to the monitor and/or its recorder.

d. Anytime there is a process rate change.

5. When the measured pollutant values are required to be corrected to a specified factor and this correction factor is not incorporated as an integral part of the primary monitoring device (such as correction to 3% O_2) independent, continuous, secondary monitoring for the specified correction factor shall be required. The secondary monitor shall comply with all the applicable provisions of this document.

6. The owner or operator shall permit the Control Officer to inspect the monitoring equipment during regular business hours to insure that it is functioning properly and that calibration references used for zeroing or spanning are traceable to the National Bureau of Standards.

7. Information regarding the monitoring equipment, the recorded data and other records relating to the monitoring shall be made available to the District upon request.

D. Discontinuance of In-Stack Monitoring:

The Control Officer may consent to the discontinuance of the monitoring system when it appears that the reasons for

monitoring no longer exist.

E. Appeals to Hearing Board:

Within thirty (30) days after receiving notice to install in-stack monitoring system, or at any time after monitoring starts, the owner or operator may request the Hearing Board to determine whether the conditions of C.1 and C.2 exist, the equipment required is appropriate; and the terms and conditions of operation are appropriate. The Control Officer's notice to install shall be suspended until decision by the Hearing Board.

F. Records Maintenance:

Owners or operators subject to this Rule shall maintain, for a period of at least two years:

1. A recorded log in a permanent form suitable for inspection which includes:

a. Occurrence and duration of any start-up, shut-down or malfunction in the operation of any affected facility.

b. Performance testing, evaluations, calibrations, checks, adjustments, and maintenance of any continuous emission monitors that have been installed pursuant to these Rules.

2. Records produced from monitoring equipment.

G. Reporting Requirements:

Owners or operators subject to this Rule shall:

1. Notify the Control Officer of any breakdown or shut-down of the monitoring equipment within 4 hours of the start of the next business day.

2. Report to the Control Officer, within 48 hours after occurrence, the violation of any emission standard to which the stationary source is required to conform.

3. Submit a quarterly written report during the first week of each calendar quarter, to include:

a. Monitoring system failures for periods when the continuous monitoring system was inoperative except:

1) Zero/Span checks.

2) Monitoring system repair and adjustments.

b. The date, time interval, magnitude and nature of excess emissions, reported in the units of the applicable emission standard. The cause of the violation, corrective actions taken and preventive measures adopted shall be provided.

c. Reports on opacity violations shall provide:

1) The number of (3) three minute periods during which the average opacity exceeded the standard for each hour of operation.

2) Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements each minute. Any time period exempted shall be considered before determining the excess averages of opacity.

4. Negative Declarations:

Negative declarations shall be submitted quarterly when no excess emissions have occurred.

H. Data Reporting Criteria Guidelines

1. Oxides of nitrogen (NOx) values measured in parts per million of flue gas volume shall be reported as Nitrogen Dioxide (NO_2) corrected to 3% O_2.

2. Reporting criteria for other pollutants - to be supplied.

3. Data Reduction: Data shall be reduced according to 40CFR Part 51, Appendix P, Paragraph 5.0 to 5.3.3.

I. Instrumentation:

Instrumentation required under this Rule shall meet the requirements of the sections below. In the event of conflicting requirements or standards, the strictest or most rigorous requirement shall be followed.

1. Monitoring devices shall be operated, maintained and calibrated in a manner consistent with the manufacturer's recommendations. The manufacturer shall specify that which is necessary to insure that the devices will continually operate within the performance specification limits. Maintenance and calibration criteria shall include, but is not limited to:

a. Maintenance and calibration frequency and procedures. (A copy of the manufacturer's recommended maintenance and calibration procedures shall be submitted to the District prior to installation. Any subsequent user changes to these procedures shall be submitted to the District within ten (10) days of adoption.)

b. Specifications for the calibration standard (gas). The calibration standard value shall be certified by

a method approved by the District at a frequency of not less than once every three months.

2. Systems shall be installed, calibrated, maintained and operated in accordance with the following sections of 40 CFR.

Fossil-Fuel Fired Steam Generators: Section 60.45 CFR.

Sulfuric Acid Plants: Section 60.84 CFR.

Nitric Acid Plants: Section 60.73 CFR.

Petroleum Refineries: Section 60.105 CFR.

3. Calibration gas mixtures shall meet the specifications in 40 CFR, Part 51, Appendix P, Section 3.3, and Part 60, Appendix B. Performance Specification 2, Section 2.1.

4. Cycling times shall be those specified in 40 CFR 60, Appendix P, Sections 3.4, 3.4.1 and 3.4.2.

5. SO_2 and NOx monitors shall meet the applicable performance specification requirements in 40 CFR, Part 51, Appendix P, and Part 60, Appendix B.

6. CO_2 and 0_2 monitors shall meet the performance specification requirements in CFR 40, Part 51, Appendix P, and Part 60.

7. Opacity monitors shall meet the performance specification requirements in CFR 40, Part 51, Appendix P, and part 60, Appendix B.

8. Minimum Instrument Specifications:

a. Sulfur Dioxide/Nitrogen Oxides

Parameter	Specification
Accuracy*	20% of the mean value of the reference method test data
Calibration Error*	5% of each (50%, 90%) calibration gas mixture value
Zero Drift (2 hour)*	2% of span
Zero Drift (24 hour)*	2% of span
Calibration Drift (2 hour)*	2% of span
Calibration Drift (24 hour)*	2.5% of span
Response Time	15 minutes maximum
Operation Period	168 hours minimum

*Expressed as sum of absolute mean value plus 95 percent confidence interval of series of tests.

b. Oxygen or Carbon Dioxide

Parameter	Specification
Zero Drift (2 hour)*	0.4% O_2 or CO_2
Zero Drift (24 hour)*	0.5% O_2 or CO_2
Calibration Drift (2 hour)*	0.4% O_2 or CO_2
Calibration Drift (24 hour)*	0.5% O_2 or CO_2
Operational Period	168 hours minimum
Response Time	10 minutes

*Expressed as sum of absolute mean value plus 95 percent confidence interval of series of tests.

c. Opacity Instrumentation specifications will be supplied after technical concurrence has been reached between California Air Resources Board and Federal Environmental Protection Agency Region IX.

A copy of the manufacturer's design performance specifications showing compliance to all of the above requirements shall be submitted to the District prior to installation.

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6/19/92

RULE 329. CUTBACK AND EMULSIFIED ASPHALT PAVING MATERIALS
(Adopted 6/11/79, revised 2/25/92.)

A. Applicability

The provisions of this rule shall apply to the manufacture, application and sale of cutback and emulsified asphalt materials for the paving, construction and maintenance of streets, highways, parking lots and driveways.

B. Exemptions

The provisions of this rule shall not apply to cutback asphalt manufactured in the District for shipment and use outside the District.

C. Definitions

1. "Asphalt" means the dark-brown to black cementitious material (solid, semi-solid, or liquid in consistency) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining.

2. "Cutback asphalt" means paving grade asphalts liquified with petroleum distillate and as further defined by American Society for Testing and Materials (ASTM) specifications as follows:

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

3. "Dust Palliative" means any light application of liquified asphalt (cutback or emulsified asphalt) for the express purpose of controlling loose dust.

4. "Emulsified asphalt" means any asphalt liquified with water containing an emulsifier. The two kinds of emulsions most pertinent are the anionic and cationic types.

5. "Penetrating prime coat" means any application of asphalt to an absorptive surface to penetrate and bind the aggregate surface and promote adhesion between it and the new superimposed construction. Prime coats do not include dust palliatives or tack coats.

6. "Road oils" shall be synonymous with slow cure asphalts.

7. "Tack coat" means any application of asphalt applied to an existing surface to provide a bond between new surfacing and existing surface to eliminate slippage planes where the new and existing surfaces meet.

D. Prohibitions

1. A person shall not sell, offer for sale, use or apply for paving, construction or maintenance of parking lots, driveways, streets or highways, any cutback asphalt material which contains more than 0.5 percent by volume ROC's, which evaporate at 260 degrees celsius (500 degrees Fahrenheit) or less.

2. A person shall not sell, offer for sale, use or apply for paving, construction or maintenance of parking lots, driveways, streets or highways, any emulsified asphalt material which contains more than 3.0 percent by volume ROC's, which evaporate at 260 degrees celsius (500 degrees Fahrenheit) or less.

E. Recordkeeping

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

1. The manufacturer or user shall maintain records showing the types and amounts of cutback and emulsified asphalts produced or used. In addition, the manufacturer or user shall keep records of the destination of asphalt paving material not in compliance with this rule.

2. Such records shall be retained and made available for inspection by the District for a period of two years.

F. Test Methods

1. Samples of cutback asphalt containing ROC as specified in Section D.1 shall be analyzed in accordance with ASTM Distillation Method D402.

2. Samples of emulsified asphalt containing ROC as specified in Section D.2 shall be analyzed in accordance with ASTM Distillation Method D244.

G. Compliance Schedule

1. Any person who manufactures or uses cutback or emulsified asphalt within Santa Barbara County shall comply with Section E. of this rule on February 25, 1992.

2. Any person who uses cutback or emulsified asphalt within Santa Barbara County shall comply with Sections D.1 and D.2 by May 25, 1992, provided that materials not in compliance with Sectins D.1 and D.2 used before that date were purchased prior to February 25, 1992.

RULE 330. SURFACE COATING OF METAL PARTS AND PRODUCTS. (Adopted 6/11/1979, revised 7/10/1990, 7/24/1990, 11/13/1990, 4/21/1995, 1/20/2000, and 6/21/2012)

A. Applicability

This rule is applicable to any person who manufactures any metal part coating or metal product coating for use within the District, as well as to any person who uses, applies, or solicits the use or application of any metal part coating, metal product coating, or associated solvent within the District.

B. Exemptions

1. Section D shall not apply to any non-complying coatings with separate formulations used in volumes of less than 20 gallons of each non-complying formulation per stationary source in any calendar year. To qualify for this exemption from Section D, the total volume of non-complying coatings used at a stationary source shall not exceed 55 gallons annually. Coatings used for operations that are exempt per Sections B.2, B.3, B.4, B.5, B.10, and B.12 shall not be included in calculating the volume of coatings used under this exemption. Any person claiming this exemption shall maintain on a daily basis records consistent with Section H.6 and make them available to the District for review upon request.

2. Section E and H shall not apply to touch-up coatings, repair coatings, and texture coatings, provided Section D limits are met and records are maintained pursuant to a Permit to Operate.

3. This rule shall not apply to residential non-commercial metal parts and products coating operations.

4. This rule shall not apply to the surface coating of parts or products and associated solvent where the only metal involved is fasteners, nails, pins, rivets, hinges, hasps, and similar devices used to hold the nonmetal parts together and which do not constitute a substantive part of the total surface area.

5. This rule shall not apply to coatings supplied as aerosol products in non-refillable containers.

6. This rule shall not apply to the coating operations listed below, which are covered under the rules cited.

    a. Aerospace vehicle or component finishing or refinishing (Rule 337, Surface Coating of Aerospace Vehicles and Components), or

    b. Automobile or truck refinishing (Rule 339, Motor Vehicle and Mobile Equipment Coating Operations), or

    c. Marine vessel finishing or refinishing (Rule 317, Organic Solvents), or,

    d. Stationary structures (Rule 323, Architectural Coatings), or

    e. Application of adhesives and sealants (Rule 353, Adhesives and Sealants).

7. Any coating and associated solvent subject to the requirements of this rule shall be exempt from the requirements of any other coating or solvent rule except Rule 317, Organic Solvents, and Rule 322, Metal Surface Coating Thinner and Reducer.

8. This rule shall not apply to any cleaning performed with a solvent (including emulsions) that contains two percent by weight or less of each of the following:

a. Reactive organic compounds, and

b. Toxic air contaminants (as determined by generic solvent data, solvent manufacturer's composition data or by a gas chromatography test and a mass spectrometry test).

c. Any person claiming this exemption shall maintain the records specified in Sections H.1.a and H.1.f in a manner consistent with Section H.9 and make them available for review.

9. This rule shall not apply to stripping of cured coatings, cured adhesives, cured sealants, and cured inks, except the stripping of such materials from spray application equipment.

10. Sections D, E, and J, shall not apply to any of the following:

a. Stencil coatings;

b. Safety-indicating coatings;

c. Magnetic data storage disk coatings;

d. Solid-film lubricants;

e. Electric-insulating and thermal-conducting coatings.

11. Section J shall not apply to any of the following:

a. Cleaning of semiconductor and microelectromechanical devices undergoing manufacturing processes involving thin film deposition, vacuum deposition, dry etching, or metal lift-off operations; including any maintenance activities associated with such operations;

b. Cleaning of metal in electronic components;

c. Cleaning of encasements, including decoy shells or box casings, for electronic components that have a total surface area that is less than 2 square feet;

d. Cleaning of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

e. Cleaning of transparencies, polycarbonate, or glass substrates;

f. Cleaning of solar cells, coated optics, laser hardware, scientific instruments, high-precision optics, telescopes, microscopes, and military fluid systems;

g. Cleaning or stripping of coating overspray from personal protective equipment.

12. This rule shall not apply to coatings that contain less than 20 grams of reactive organic compound per liter (0.17 pounds of reactive organic compound per gallon) of coating, less water and less exempt compounds, as applied.

C. Definitions

See Rule 102, Definitions, for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Aerospace Vehicle or Component" means any fabricated part, processed part, assembly of parts, or completed unit of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles includes satellites.

"Air Dried" means a process whereby the coated object is cured or dried at a temperature less than 90 degrees Celsius (194 degrees Fahrenheit).

"Associated Solvent" means any solvent used in a solvent cleaning machine or for solvent cleaning performed in association with surface coating of any metal part or product.

"Baked" means a process whereby the coated object is heated to a temperature of 90 degrees Celsius (194 degrees Fahrenheit) or greater for the purpose of curing or drying.

"Coating" means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains. For the purposes of Rule 330, photoresist coatings are not considered to be coatings.

"Compliant Material" means any coating or solvent that has a reactive organic compound content that complies with the applicable limit in Sections D.1, D.2, D.3, or J.

"Control" means the reduction, by destruction or removal, of the amount of affected pollutants in a gas stream prior to discharge to the atmosphere.

"Detailing or Touch-up Guns" are small air spray equipment, including air brushes, that operate at no greater than 5 cubic feet per minute air flow and no greater than 50 pounds per square inch gauge air pressure and are used to coat small products or portions of products.

"Dip Coat Application" means any process in which a substrate is immersed in a solution (or dispersion) containing the coating material, and then withdrawn.

"Electric-Insulating and Thermal-Conducting Coating" means a coating that displays an electrical insulation of at least 1,000 volts direct current per mil (0.001 of an inch) on a flat test plate and an average thermal conductivity of at least 0.27 British thermal units per hour-foot-degree-Fahrenheit.

"Electric-Insulating Varnish" means a non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.

"Electrodeposition" means the application of a coating using a water-based electrochemical bath process. The component being coated is immersed in a bath of the coating. An electric potential is applied between the component and an oppositely charged electrode hanging in the bath. The electric potential causes the ionized coating to be electrically attracted, migrated, and deposited on the component being coated.

"Extreme Performance Coating" means a coating used on a metal surface where the coated surface is, in its intended use, subject to the following:

a. Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solutions including water immersion; or

b. Repeated exposure to temperatures in excess of 250 degrees Fahrenheit; or

c. Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents.

"Flow Coat Application" means any coating application system, with no air supplied to the nozzle, where paint flows over the part and the excess coating drains back into the collection system.

"Grams of Reactive Organic Compounds per Liter of Coating, Less Water and Less Exempt Compounds" means the weight of reactive organic compounds per combined volume of reactive organic compounds and coating solids and can be calculated by the following equation:

$$\text{Grams of reactive organic compounds per liter of coating, less water and less exempt compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:

W_s	=	Weight of volatile compounds in grams
W_w	=	Weight of water in grams
W_{es}	=	Weight of exempt compounds in grams
V_m	=	Volume of material in liters
V_w	=	Volume of water in liters
V_{es}	=	Volume of exempt compounds in liters

"Hand Application Method" means the application of a surface coating by manually held non-mechanically operated equipment. Such equipment includes paint brush, hand-roller, trowel, spatula, dauber, rag or sponge.

"Magnetic Data Storage Disk Coating" means a coating used on a metal disk which stores data magnetically.

"Metal Part or Product" means any part, assembly of parts or completed unit fabricated in part or in total from metal.

"Non-Complying Coating" means a coating with a reactive organic compound content above a limit specified in Section D.1, 2, or 3.

"Non-Powder Coating" means any coating that is not a powder coating.

"Noncompliant Material" means any coating or solvent that has a reactive organic compound content that does not comply with the applicable limit in Sections D.1, D.2, D.3, or J.

"Powder Coating" means any coating applied as fine particle solids with less than 4 percent by weight reactive organic compound or other liquid carriers.

"Repair Coating" means a coating used to re-coat portions of a previously coated product which has sustained mechanical damage to the coating following normal coating operations.

"Safety-Indicating Coating" means a coating which changes physical characteristics, such as color, to indicate unsafe conditions.

"Solid-Film Lubricant" means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying surfaces.

"Solvent" means any liquid containing any reactive organic compound or any toxic air contaminant, which is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent, drying agent, preservative, or other similar uses.

"Solvent Cleaning" means any activity, operation, or process (including, but not limited to, surface preparation, cleanup, or wipe cleaning) performed outside of a solvent cleaning machine, that uses solvent to remove uncured adhesives, uncured coatings, uncured inks, uncured polyester resin material, uncured sealant, or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment, and general work

areas. Cleaning spray equipment used for the application of coating, adhesive, ink, polyester resin material, or sealant is also considered to be solvent cleaning irrespective of the spray material being cured.

"Solvent Cleaning Machine" means any device or piece of equipment that uses solvent liquid or vapor to remove soils, moisture, or other contaminants from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch cold, batch vapor, in-line cold, in-line vapor, remote reservoir, and gas-path solvent cleaners. Buckets, pails, and beakers with capacities of 3.785 liters (1.00 gallon) or less are not considered solvent cleaning machines. However, the use of such a container or similar containers (e.g., hand-held spray bottles) with a liquid solvent for cleaning is considered to be solvent cleaning. Any device or piece of equipment used exclusively for stripping shall not be considered to be a solvent cleaning machine.

"Stencil Coating" means an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to metal parts and products.

"Texture Coating" means any coating that is applied to a metal part or product which, in its finished form, consists of discrete raised spots of the coating.

"Touch-Up Coating" means a coating used to cover minor coating imperfections appearing after the main coating operation.

D. Requirements – Reactive Organic Compound Limits

No person shall apply any coating or solicit the use of any coating on any metal part or product subject to the provisions of this rule, which, as applied, contains reactive organic compounds in excess of the following limits. These limits are expressed in grams of reactive organic compound per liter or pounds of reactive organic compound per gallon of coating, less water and less exempt compounds.

1. Non-Powder Coatings except Air Dried Extreme Performance Coatings and Air Dried Electric-Insulating Varnish:

Air Dried	Baked
340 grams per liter 2.8 pounds per gallon	275 grams per liter 2.3 pounds per gallon

2. Non-Powder Extreme Performance Coatings and Electric-Insulating Varnish - 420 grams per liter, 3.51 pounds per gallon (when air dried)

3. Powder Coatings - 50 grams per liter, 0.42 pound per gallon

4. A person may elect to use an add-on control system as an alternative to meeting the requirements of Sections D.1, D.2, D.3, E, and J, provided all of the applicable requirements below are met. Any person choosing to install such control system shall obtain an Authority to Construct from the District prior to installation.

    a. The overall efficiency (the capture efficiency multiplied by the control device efficiency) of the total system shall be at least 85.5 percent, by weight. Alternatively, the control device reactive organic compound exhaust concentration shall not exceed 10 parts per million by volume as propane or other limit approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

    b. Combustion temperature shall be continuously monitored when operating a thermal incinerator.

c. Inlet and exhaust gas temperatures shall be continuously monitored when operating a catalytic incinerator.

d. Control device efficiency shall be continuously monitored when operating a carbon adsorber or a control device other than a thermal or catalytic incinerator.

e. Compliance through the use of an add-on control system shall not result in affected pollutant emissions in excess of the affected pollutant emissions that would result from compliance with Sections D.1, D.2, D.3, E, and J.

E. Requirements – Application Equipment

No person shall apply coatings subject to the provisions of this rule unless the application is performed with equipment operating according to the manufacturers operating guidelines. In addition, except as provided in Section D.4, the application method employed shall be one of the following:

1. Electrostatic spray application, or

2. Flow coat application, or

3. Dip coat application, or

4. High volume low pressure spraying equipment, or

5. Electrodeposition, or

6. Hand application methods, or

7. Detailing or touch-up guns, or

8. Any other application method approved by the Control Officer, the Air Resources Board, and the Environmental Protection Agency, that has a coating transfer efficiency equivalent to or greater than 65 percent efficiency as measured using the test method specified in Section I.4.

F. Requirements – General Operating

Any person who owns, operates, or uses any application equipment to surface coat any metal part or product shall meet the following requirements:

1. All reactive organic compounds-containing materials, used or unused, including, but not limited to, surface coatings, thinners, cleanup solvents, or surface preparation materials shall be stored and disposed of in nonabsorbent and nonleaking containers equipped with tight-fitting covers. All covers shall be in place unless adding material to or removing material from the containers, the containers are empty, or doing maintenance/inspection of the containers.

2. All application equipment, ventilation system, and emission control equipment shall be installed, operated, and maintained consistent with the manufacturer's specifications.

3. Waste solvent, waste solvent residues, and any other waste material that contains reactive organic compounds shall be disposed of by one of the following methods:

   a. A commercial waste solvent reclamation service licensed by the State of California.

   b. At a facility that is federally or state licensed to treat, store or dispose of such waste.

c. Recycling in conformance with Section 25143.2 of the California Health and Safety Code.

4. All covers, valves, drain plugs, and other closure devices designed to reduce surface coating or solvent evaporation shall not be removed or opened except to process work or to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers or other closure devices.

5. Any surface coating or solvent spills shall be wiped up immediately and the used absorbent material (e.g., cloth, paper, sand, sawdust, etc.) shall be stored in closed containers that are handled in accordance with Section F.1.

6. The handling and transfer of coatings and cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent coatings and cleaning solvents shall be conducted in such a manner to minimize spills.

7. Containers used to store coating, solvent, or any waste material that contains reactive organic compounds subject to this rule shall be marked or clearly labeled indicating the name of the material they contain.

G. Requirements – Manufacturer Labeling

1. Each container of any coating subject to this rule shall display the date on which the contents were manufactured or a code indicating the date of manufacture. Each manufacturer of such coatings shall file with the Control Officer and the Executive Officer of the California Air Resources Board, an explanation of each code.

2. Each container of any coating subject to this rule shall display a statement of the manufacturer's recommendation regarding thinning of the coating. This recommendation shall not apply to the thinning of coatings with water. The recommendation shall specify that the coating is to be employed without thinning or diluting under normal environmental and application conditions unless any thinning recommended on the label for normal environmental and application conditions does not cause a coating to exceed its applicable standard for reactive organic compound content.

3. Each container of any coating subject to this rule shall display the maximum reactive organic compound content of the coating, as applied, and after any thinning as recommended by the manufacturer. Reactive organic compound content shall be displayed as grams of reactive organic compounds per liter or pounds of reactive organic compound per gallon of coating, less water and less exempt compounds. The volatile organic compound content may be displayed instead of the reactive organic compound content as long as the manufacturer's definition of volatile organic compound is consistent with the definition of reactive organic compound contained in District Rule 102, Definitions. Reactive organic compound content displayed may be calculated using product formulation data and the formula in Section C, or may be determined using the test method in Section I.1.

H. Requirements – Recordkeeping

Any person subject to this rule shall comply with the following requirements. Any owner or operator of any stationary source comprised of more than one facility may comply with the following requirements on a facility basis.

1. Maintain a current file of all reactive organic compound-containing materials in use at the stationary source subject to this rule. The file shall provide all of the data necessary to evaluate compliance and shall include the following information, as applicable:

a. material name and manufacturer identification (e.g., brand name, stock identification number);

b. application method;

c. material type (e.g., air dried or baked enamel, powder coating, extreme performance coating, cleanup solvent, etc.), type operation (e.g., coating, stripping, or solvent cleaning), and, for non-powder coating operations, the drying method and equipment coated;

d. specific mixing data (e.g., component volumes or weights) of each component for each batch sufficient to determine the mixture's reactive organic compound content;

e. the corresponding reactive organic compound content limit from Sections D.1, D.2, D.3 and J.1 and the actual as applied reactive organic compound content of the materials used; and

f. current coating and solvent manufacturer specification sheets, Material Safety Data Sheets, product data sheets, or air quality data sheets, which list the reactive organic compound content of each material in use at the stationary source subject to this rule. Compliance with this provision may be done by ensuring the manufacturer's specifications are listed on the product container.

2. [Reserved]

3. Maintain records for each reactive organic compound-containing material purchased for use at the stationary source. The records shall include, but not be limited to, the following:

a. material name and manufacturer identification (e.g., brand name, stock identification number); and

b. material type (e.g., air dried or baked enamel, powder coating, extreme performance coating, cleanup solvent, etc.).

4. Maintain records of the disposal method each time waste solvent, waste solvent residue, or other waste material that contain reactive organic compounds is removed from the stationary source for disposal.

5. For each material maintained in response to Section H.1.a, maintain, at a minimum, on a monthly basis for compliant material and on a daily basis for noncompliant material, a record of the following:

a. volume used (gallons per day, gallons per month);

b. reactive organic compound content (grams per liter or pounds per gallon); and

c. resulting reactive organic compound emissions (pounds per day, pounds per month).

6. Any person claiming an exemption under the Section B.1 shall maintain:

a. Daily records of the volumes in gallons of non-complying coating materials used by each separate formulation at the stationary source.

b. Annual running totals, from January 1 of each calendar year, of the volume in gallons of non-complying coating materials used at the stationary source for:

1) Each separate formulation.

2) All formulations.

7. For any stationary source that uses emission control equipment as an alternative to meeting the requirements of Sections D.1, D.2, D.3, E, or J, daily records of key operating parameter values and maintenance procedures that demonstrate continuous operation and compliance of the emission control system during periods of emission producing activities shall be maintained. These parameters shall include, but not be limited to:

   a. Hours of operation;

   b. All maintenance work that requires the emission control system to be shut down; and

   c. All information needed to demonstrate continuous compliance with Section D.4, such as temperatures, pressures, and/or flow rates.

8. Any records required to be maintained pursuant to this rule shall be kept on site for at least 2 years unless a longer retention period is otherwise required by state or federal regulation(s). Such records shall be readily available for inspection and review by the District.

I. Requirements – Compliance Provisions and Test Methods

1. Coatings and solvent reactive organic compound content shall be measured by the Environmental Protection Agency Reference Method 24, its constituent methods, or an equivalent method approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer. The determination of exempt compounds shall be performed in accordance with ASTM D 4457-1991, **"**Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph,**"** ASTM International. Alternatively, determination of exempt compounds may be performed in accordance with the South Coast Air Quality Management District Method 303-91, "Determination of Exempt Compounds," August 1996. The reactive organic compound content of materials containing 50 grams of reactive organic compound per liter or less shall be determined by the South Coast Air Quality Management District Method 313-91, **"**Determination of Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry,**"** June 1993, or any other test methods approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

2. The control device efficiency for reactive organic compound emissions shall be determined by Environmental Protection Agency Methods 25, 25A, the South Coast Air Quality Management District Method 25.1, **"**Determination of Total Gaseous Non-Methane Organic Emissions as Carbon," February 1991, or the South Coast Air Quality Management District Method 25.3, **"**Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources," March 2000, as applicable. Environmental Protection Agency Test Method 18 or Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990, shall be used to determine emissions of exempt compounds.

3. The capture efficiency for reactive organic compound emissions shall be determined by verifying the use of a Permanent Total Enclosure and 100 percent capture efficiency as defined by Environmental Protection Agency Method 204, **"**Criteria for and Verification of a Permanent or Temporary Total Enclosure." Alternatively, if an Environmental Protection Agency Method 204 defined Permanent Total Enclosure is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the Environmental Protection Agency technical guidance document **"**Guidelines for Determining Capture Efficiency, January 9, 1995." Individual capture efficiency test runs subject to the Environmental Protection Agency technical guidelines shall be determined by:

a. The Temporary Total Enclosure approach of Environmental Protection Agency Methods 204 through 204F; or

b. The South Coast Air Quality Management District "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency," May 1995.

4. Application equipment coating transfer efficiencies shall be measured using South Coast Air Quality Management District Method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," May 1989.

5. The control device efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined using:

a. an Environmental Protection Agency approved test method or methods, or

b. in the case where there is no Environmental Protection Agency approved test method, a District approved detection method applicable for each target toxics specie.

c. the Control Officer may require more than one test method on any emission control device where necessary to demonstrate that the overall efficiency is at least 85.5 percent by weight in reducing emissions of reactive organic compounds and/or toxic air contaminants. Any technique to convert "parts per million by volume" test method results to either 1) "parts per million by weight," or 2) "mass emission rates" (e.g., pounds per hour) shall first be approved by the Control Officer and, if such approval is not provided, then the technique shall not be used to show compliance with this rule.

6. The capture efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined by using the methods described in Section I.3 modified in a manner approved by the District to quantify the mass of liquid or gaseous reactive organic compounds and/or toxic air contaminants.

7. Emissions of reactive organic compounds from the exhaust of an emission control system shall be measured by the Environmental Protection Agency Method 25, in combination with Environmental Protection Agency Method 18 or the California Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990 (to determine emissions of exempt compounds).

8. When more than one test method or set of test methods are specified for any testing, a test result showing an exceedance of any limit of this rule shall constitute a rule violation.

9. The Environmental Protection Agency test methods in effect on June 21, 2012 shall be the test methods used to meet the requirements of this rule.

J. Requirements – Solvent Cleaning Associated with Surface Coating of Metal Parts and Products

Section J requirements shall apply to any person performing solvent cleaning associated with surface coating of metal parts and products, including, but not limited to, use of wipe cleaning cloths, hand-held spray bottles, squirt bottles, aerosol products, and the cleaning of application equipment. The following requirements become effective June 21, 2013 and are in addition to the general operating requirements specified in Section F.

1. **Solvent Requirements**

Except when using an emission control system that meets the requirements of Section D.4, no person shall use any solvent to perform solvent cleaning which exceeds the applicable grams of reactive organic compound per liter of material limit specified in Table 330-1.

Table 330-1: Reactive Organic Compound Content Limits for Solvent Cleaning Associated with Surface Coating of Metal Parts and Products

SOLVENT CLEANING ACTIVITY	ROC Limit, grams of ROC per liter of material (pounds of ROC per gallon of material)
(a) Metal Parts and Products Surface Preparation for Coating Application	25 (0.21)
(b) Cleaning of Coatings Application Equipment	25 (0.21)

K. Compliance Schedule

Any person who owns, operates, or uses any application equipment to surface coat any metal part or product shall meet the following compliance schedule:

1. By July 21, 2012, comply with Section F, Requirements - General Operating.

2. By December 21, 2012, comply with the recordkeeping provisions in the following Sections:

   a. H.1.d - mixing data,

   b. H.1.e - reactive organic compound content data,

   c. H.3 - purchase records,

   d. H.4 - waste disposal records, and

   e. H.5 - daily records for noncompliant materials.

3. By June 21, 2013, comply with the Section J and Section M requirements.

4. By June 21, 2012, comply with all other provisions of this rule.

L. Reporting Requirements

Submittal of an annual report to the District is required if:

- A person holds a permit for equipment subject to the requirements of this rule, or
- A person is subject to the requirements of this rule and applies non-complying coatings.

The annual report shall be submitted to the District by March 1 and it shall contain the following information for the previous calendar year:

1. monthly totals (gallons) of compliant and noncompliant material used based on the records required by Section H.5,

2. annual totals (gallons) based on each of the coating's and solvent's monthly data,

3. if claiming the Rule 330.B.1 exemption, annual totals (gallons) of non-complying coatings for each separate formulation and all formulations, per Section H.6.b, and

4. if permitted, name and address of the company or agency, and the Permit to Operate number that the surface coating equipment is subject to.

M. Requirements - Solvent Cleaning Machine

Any person who owns, operates, or uses any solvent cleaning machine shall comply with the applicable provisions of Rule 321, Solvent Cleaning Machines and Solvent Cleaning.

Santa Barbara
6/19/92

6/19/92

RULE 331. Fugitive Emissions Inspection and Maintenance (Adopted 12/10/91)

A. Applicability

This Rule shall apply to components in liquid or gaseous hydrocarbon service at refineries, chemical plants, oil and gas production fields, oil and gas processing plants, and pipeline transfer stations.

B. Exemptions

1. Exemptions shall be applied for in writing to the Control Officer.

2. The provisions of this Rule shall not apply to:

a) components exclusively handling natural gas,

b) components buried below ground,

c) one-half inch and smaller stainless steel tube fittings which have been determined to be leak-free by the Control Officer based on an initial inspection in accordance with Section H.1.

3. The provisions of Sections F.1, F.2, F.3 and F.7 of this Rule shall not apply to:

a) components exclusively in heavy liquid service,

b) components, except components within gas processing plants, exclusively handling liquid and gaseous process fluids with an ROC concentration of 10 percent or less by weight, as determined according to test methods specified in Section H.2,

c) components totally contained or enclosed such that there are no ROC emissions into the atmosphere,

d) components incorporated in lines operating exclusively under negative pressures.

e) any control valve actuation system, except those used in pressure relief valves and stuffing boxes, which uses gas pressure to open or close the valve and which releases gas to the atmosphere during this process, and for which the Control Officer has determined on a case-by-case basis that no alternate valve design can be feasibly used.

4. The provisions of Sections F.1, F.2, and F.7 of this rule shall not apply to components that are unsafe to monitor, as documented and established in a safety manual or policy, and with the prior written approval of the Control Officer.

C. Definitions

For purposes of this Rule, the following definitions shall apply. Definitions which apply to multiple rules are located in Rule 102 (Definitions):

1. "Background" means the reading expressed as methane on a portable hydrocarbon detection instrument which is taken at least three meters upwind from any components to be inspected and which is not influenced by any specific emission point.

2. "Chemical plant" means 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. "Component" means any valves, fittings, pumps, compressors, hatches, sight glasses, meters, pressure relief devices, and diaphragms. They are further classified as:

   a. "Major component" means 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" means any component which is not a major component.

   c. "Critical component" means any component which would result in the shutdown of the process unit if these components were shut down. These components must be identified by the source and approved by the Control Officer.

4. "Compressor" means 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.

5. "Crude oil production or processing facility" means any facility engaged in the production or processing of crude oil. This includes all components in liquid or

gaseous hydrocarbon service. Any facility or operation that has 1311 as its Standard Industrial Classification Code as defined in the Standard Industrial Classification Manual is included.

6. "Facility" means "stationary source", as defined in Rule 102, or for oil and gas production, that portion of the stationary source located on a lease.

7. "Fitting" means a component used to attach or connect pipes or piping details including but not limited to flanges and threaded connections.

8. "Flange" means a projecting rim on a pipe or piping component used to attach it to another piping detail.

9. "Fugitive emissions" means hydrocarbon emissions that are released into the atmosphere from any point other than a stack, chimney, vent or other functionally equivalent opening.

10. "Gas processing plant" is a facility engaged in the separation of liquids from field gas and/or fractionation of the liquids into gaseous 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, liquefied natural gas units, and field gas gathering systems unless these facilities are located at a gas processing plant.

11. "Hatch" means any covered opening system that provides access to a tank or container.

12. "Heavy liquid service" means any component which contains or contacts a liquid containing ROC of which 10 percent or less by weight evaporates at 150 degrees centigrade and atmospheric pressure as measured according to test methods in Section H.3.

13. "Inaccessible" means any component located over fifteen (15) feet above ground when access is required from the ground, or any component located over six (6) feet away from a platform when access is required from the platform.

14. "Leak minimization" means tightening or adjusting of a component for the purpose of stopping or reducing leakage to the atmosphere.

15. "Liquid leak" means a visible mist or the dripping of liquid at the rate of more than three drops per minute.

16. "Major gas leak" means the detection of total gaseous hydrocarbons in excess of 10,000 ppmv as methane above background measured according to test methods in Section H.1.

17. "Minor gas leak" means the detection of total gaseous hydrocarbons in excess of 1,000 ppmv but not more than 10,000 ppmv as methane above background measured according to test methods in Section H.1.

18. "Natural gas" means a mixture of gaseous hydrocarbons, with at least 80 percent methane, and less than one percent ROC, on a weight basis, excluding ethane, determined according to test methods specified in Section H.

19. "Oil and gas production field" means 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.

20. "Pipeline transfer station" means a facility which handles the transfer and/or storage of petroleum products or crude petroleum in pipelines.

21. "Pressure relief event" means a release from a pressure relief device resulting when the static upstream pressure reaches the setpoint of the pressure relief device. A pressure relief event is not a leak.

22. "Pressure relief device" means a pressure relief valve or a rupture disc.

23. "Pressure relief valve" means a valve which is automatically actuated by upstream static pressure, and used for safety or emergency purposes.

24. "Process unit" means a manufacturing process which is independent of other processes and is continuous when supplied with a constant feed of raw material and sufficient storage facilities for the final product.

25. "Process unit shutdown" means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

26. "Pump" means a device used to transport fluids by the addition of energy, and includes all associated components used for connecting or sealing purposes.

27. "Refinery" means a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refinery.

28. "Reinspection" means an inspection following the attempted repair of a leak.

29. "ROC service" means that the equipment, except at gas processing plants, contains or contacts a liquid or gaseous process fluid that is at least 10 percent ROC by weight. For gas processing plants, ROC service means that the equipment contains or contacts a liquid or gaseous process fluid that is at least 1 percent ROC by weight.

30. "Repair" means tightening or adjusting or replacing a component for the purpose of stopping or reducing leakage to the atmosphere.

31. "Rupture disk" means the diaphragm held between flanges for the purpose of isolating an ROC from the atmosphere or from a downstream pressure relief valve.

32. "Stuffing box" means a packing gland, a chamber, or "box" to hold packing material compressed around a moving pump rod or valve stem by a "follower" to prevent the escape of gas or liquid. For purposes of this rule, stuffing box seals are considered as part of pump seals.

33. "Valve" means any device that regulates or isolates the flow of liquids or gases in a piping system by means of an external actuator; including flanges, flange seals, and other components used for attachment or sealing.

D. Requirements - General

1. No facility shall exceed the number of leaks specified in Table 1, of Section F.2, for each inspection period for major gas leaks and/or liquid leaks, as determined by District or operator inspection, except as provided in Rule 505.

2. Hatches shall be closed at all times except during sampling, adding process material or attended maintenance operations.

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 liquid or gaseous process fluid flow through the open-ended line.

4. Components or component parts which incur five repair actions for major gas or liquid leaks within a continuous twelve-month period shall be replaced with Best Available Control Technology equipment as determined by the District's New Source Review Rule.

E. Requirements - Repair

1. No person shall use any component in ROC service if there is a major or minor gas leak or a liquid leak, unless all of the following requirements are satisfied:

   a. All leaks from components shall be minimized within one hour to stop or reduce leakage to the atmosphere.

   b. All leaks from critical components shall be minimized within one hour to the extent possible and shall be replaced with Best Available Control Technology (BACT) as determined in accordance with the District's New Source Review Rule during the next process shutdown or within twelve months, whichever is sooner.

   c. Major gas leaks from noncritical components shall be successfully repaired within 5 calendar days of initial leak detection.

   d. Minor gas leaks from noncritical components shall be successfully repaired within 14 calendar days of initial leak detection.

   e. Liquid leaks from noncritical components shall be repaired within 24 hours of detection.

   f. All noncritical components subject to this Section, where the total gaseous hydrocarbon concentration exceeds 50,000 ppmv (expressed as methane) above background, shall be repaired within 1 calendar day of initial leak detection at onshore facilities, and within 2 calendar days of initial leak detection at offshore facilities, or removed from service until successfully repaired, unless prohibited by California Occupational Safety and Health Administration standards.

F. Requirements - Inspection

1. Except as provided in F.2 and F.4, each accessible component subject to this Rule shall be inspected by the owner or operator of the facility in accordance with EPA Reference Method 21 at least once each calendar quarter.

2. The inspection frequency for accessible components, except pump seals, compressor seals and pressure relief devices, may be conducted annually, provided all of the following conditions are met:

   a. All components at that facility have been successfully operated and maintained with no major gas or liquid leaks in excess of the leak thresholds specified in Table 1 for five consecutive quarters, and

   b. The above is substantiated by documentation and submitted to and approved by the Control Officer.

   c. The annual inspection frequency for all accessible components shall revert to quarterly inspections should the annual inspection or District inspection show major gas or liquid leaks in excess of the leak threshold for any category of components listed in Table 1. The maximum number of leaks in Table 1 shall be rounded upwards to the nearest integer, where required.

TABLE 1. LEAK THRESHOLDS

Component	Maximum number of Allowable Leaks Per Inspection Period	
	Components Inspected	
	200 or less	over 200
Valves	1	0.5% of number inspected
Pump seals	2	1% of number inspected
Compressors seals	1	1
Pressure Relief Devices	1	1
Other Components	1	1

3. All inaccessible components shall be inspected annually by the owner or operator according to EPA Reference Method 21. Unsafe to monitor components shall be inspected when this can be done safely.

4. All threaded and flanged connections shall be inspected by the owner or operator according to EPA Reference Method 21 immediately after assembly and annually thereafter.

5. Pressure relief devices shall be inspected by the owner or operator according to EPA Reference Method 21 quarterly and within 3 calendar days after every pressure relief event.

6. Each component subject to this Rule shall be reinspected by the owner or operator according to EPA Reference Method 21 within 30 calendar days after leak minimization or leak repair.

7. Each pump seal, compressor seal, or pressure relief device shall be inspected for leaks once during every eight-hour operating period, except for components at oil or gas production fields and pipeline transfer stations where inspection shall be daily. For purposes of this inspection, a leak shall include any liquid leak, a visual vapor leak, or the presence of bubbles using soap solutions, or the use of a vapor analyzer. If a leak is identified, that pump seal, compressor seal, or pressure relief device shall be inspected with a vapor analyzer within two calendar days of initial leak detection according to EPA Reference Method 21.

G. Recordkeeping and Reporting

1. The owner or operator of any facility subject to this rule shall identify all components specified below. The identification system must be approved by the Control Officer for the purposes of inspection, repair, replacement, and recordkeeping:

   a. All major components and critical components shall be physically identified clearly and visibly. The physical identification shall consist of labels, tags or other system approved by the Control Officer which enables the District or the operator to locate each individual component.

   b. All major components, critical components, unsafe to monitor components and components located in inaccessible areas, except flanges and threaded

connections, shall be clearly identified in diagrams as approved by the Control Officer.

c. A list of all equipment and components including separate identification of inaccessible, unsafe to monitor, and critical components shall be submitted to the District for approval. The list shall include component identification, location, whether major or minor, usage, and reasons for inaccessible or unsafe to monitor designation.

2. The owner or operator of any facility subject to this rule shall notify the Control Officer in writing of any changes in the identification of a major component.

3. All leaking components found during inspection by the owner or operator shall be affixed with highly visible, weatherproof tags showing the date of initial leak detection. All leaking components shall be physically labeled at the time of leak detection with a unique code that is readily identifiable and shall be clearly identified in diagrams specified in Section G.1.b within 30 calendar days of initial leak detection.

4. The owner or operator of any facility subject to this rule shall maintain an inspection log containing at a minimum the following:

   a. Name, location, type of components, and description of any unit where leaking components are found.

   b. Date of leak detection, emission level (ppmv) of leak, date(s) of repair attempt(s) and method of leak detection.

   c. Date(s) and emission level of reinspection(s) after leak is repaired.

   d. Total number of components inspected, location, date inspected, and total number and percentage of leaking components found by component types.

   e. Current record identifying all equipment awaiting repairs.

   f. Maintenance and calibration records of Organic Vapor Analyzer, including dates and methods of calibration and/or repairs.

5. The inspection and repair records shall be retained at the facility by the owner or operator for the previous

two (2) years and the records shall be made available at the time of District inspection and shall be submitted to the Control Officer upon request.

H. Test Methods

1. Measurement of total gaseous hydrocarbon leak concentration shall be conducted according to EPA Reference Method 21 (40 CFR 60, Appendix A). The analyzer shall be calibrated with methane. If the alternative screening procedure referenced in Method 21 is used and bubbles are observed, the instrument technique specified in Method 21 shall be used within the same working day to determine if a leak exists.

2. The ROC content of fluids shall be determined using ASTM Methods E-168-88, E-169-87, or E-260-85. The Control Officer may approve an alternative test method provided that method is comparable in accuracy to the ASTM Method and has been approved by the ARB and EPA.

3. Determination of evaporated compounds of liquids shall be performed in accordance with ASTM D-86-82.

4. Determination of exempt solvent content shall be performed in accordance with ASTM D-4457-85.

I. Compliance Schedule

1. All sources subject to this Rule shall submit to the Control Officer for review and approval a Fugitive Emissions Inspection and Maintenance Plan by June 10, 1992. The plan shall include a description of the identification system required by Section G.1. including the physical identification method required by Section G.1.a., the diagrams required by Section G.1.b, and the component list required by Section G.1.c.

   The District review of the Fugitive Emissions Inspection and Maintenance Plan will include an inspection to verify component identification and diagrams and to verify equipment and component lists in accordance with Section G.1.

   An updated Fugitive Emissions Inspection and Maintenance Plan must be submitted to the District for review and approval within one calendar quarter whenever there is a change in the component list or diagrams.

2. The owner or operator of any existing facility subject to this Rule shall comply with all the provisions of this Rule by December 10, 1992. In addition, the owner or operator shall comply with the following schedule:

   a. Complete identification of all major components and critical components subject to this Rule by June 10, 1992.

   b. Initiate required inspections and recordkeeping by December 10, 1992.

3. After December 10, 1991 the owner or operator of a new facility or an existing facility which adds new components subject to this Rule shall comply with the provisions of this Rule for all applicable components at the time operation commences.

2. Any valve or flange where there is a visible liquid emerging or where there is a reading greater than 10,000 but less than 75,000 parts per million, expressed as methane, above background on an appropriate analyzer when the analyzer probe is held within 1 cm of the joining surfaces, shall be repaired within 15 days or a variance shall be applied for from the District Hearing Board, unless safety considerations prevent the repair of any leaking valve or flange without the shutdown of an essential process unit, in which case, such repair shall be accomplished during the next shutdown or process turnaround of the essential process unit of within six months whichever period is shorter.
3. A person shall be considered to be in violation of this paragraph if a leaking valve or flange is not repaired within the time period specified in paragraph E.1. or E.2., and a variance has not been requested for continued use of the valve or flange.

F. Violations

The failure of a person to meet any requirements of this Rule shall constitute a violation of this Rule.

10/18/79

RULE 332 PETROLEUM REFINERY VACUUM PRODUCING SYSTEMS, WASTEWATER SEPARATORS AND PROCESS TURNAROUNDS

A. Definitions

For the purpose of this Rule:

1. "Organic compound" means any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, carbonates, and methane.
2. "Petroleum refinery" means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of crude oil, or through redistillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

3. "Process turnaround" means the operation of unit shutdown (i.e., reactors, fractionators, etc.).

4. "Vacuum producing systems" means:

   a. Steam ejectors with contact condensers, including hot wells;

   b. Steam ejectors with surface condensers, including hot wells; and

   c. Mechanical vacuum pumps.

5. "Wastewater separators" means any device used for separating organic liquids from refinery wastewater.

B. Exemptions

The provisions of Section D. shall not apply to those sources in the Northern Zone of the County installed prior to May 18, 1979.

C. Requirements for Petroleum Refinery Vacuum Producing Systems

1. A person shall not use any vacuum producing system at a petroleum refinery for handling organic compounds unless all organic compounds are prevented from entering the atmosphere to the extent required by Section C.2.

2. Compliance with Section C.1. of this Rule shall be accomplished in part by:

   a. Containing all uncondensed organic vapors emitted from vacuum producing systems and piping those vapors to a firebox, a flare, or adding said vapors to refinery fuel gas or feedbacks; or

   b. Controlling uncondensed organic vapors emitted from vacuum producing systems by methods which the Control Officer has determined will not allow any such vapors to be emitted to the atmosphere.

3. A person shall enclose, until introduced to a sewer, all streams of water containing volatile organic compounds which have been condensed in a condenser associated with a vacuum device in a petroleum refinery. Any gaseous organic compounds emitted from the enclosure shall be collected and disposed of in a manner required by Section C.2. of this Rule.

D. Requirements for Petroleum Refinery Wastewater Separators

1. A person shall not use any inlet distribution header or compartment of a wastewater separator at a petroleum refinery. Said header or compartment is equipped with:
   a. A solid cover with all openings sealed totally enclosing the compartment liquid contents, except for such breathing vents as are structurally necessary; or
   b. A floating cover which extends to within 0.125 inches of the wall of said compartment or header at all points on the perimeter of the cover except over a cumulative length of no more than three percent of the perimeter; over said three percent of the perimeter, the cover shall extend to within 0.5 inches of the wall; or
   c. Controls which the Air Pollution Control Officer has determined will reduce organic gas emissions from said compartment or header to or below the mass emission rate which would occur if controls described in D.1.a. or D.1.b. were applied.

2. All gauging and sampling devices in the compartment cover shall be equipped with a cover that is in a closed position at all times except when the devices are in actual use or when the compartment does not contain organic compounds.

E. Requirements for Petroleum Refinery Process Turnaround

1. A person shall not vent organic compounds to the atmosphere during process depressurization or the vessel purging steps of a refinery process turnaround.
2. Compliance with Section E.1. of this Rule shall be accomplished by venting all uncondensed organic gases to a fuel gas system or to a flare, or by other methods which the Control Officer has determined will prevent said gases from being emitted to the atmosphere.

3. Upon receipt and validation of documentation of the infeasibility of using existing control facilities to control the purge gas stream from a process vessel, the Control Officer may exempt that process vessel from those requirements of Section E.2. which would otherwise require the control of such purge gases. The necessity to install valves or piping or to purge the process vessel at a lower rate than would otherwise be used shall not constitute grounds for exemption.

RULE 333. CONTROL OF EMISSIONS FROM RECIPROCATING INTERNAL COMBUSTION ENGINES. (Adopted 12/03/1991, revised 12/10/1991, 4/17/1997, and 6/19/2008)

A. Applicability

The provisions of this rule shall apply to any engine with a rated brake horsepower of 50 or greater.

B. Exemptions

1. The requirements of this rule shall not apply to:

   a. Spark ignition engines operating on gaseous fuel consisting of 75 percent or more of landfill gas on a volume basis determined by annual fuel use. To qualify for this exemption written documentation shall be submitted with the Authority to Construct application and approved by the Control Officer. The documentation must describe the fuel meters used, the level of accuracy of the fuel meters, and calculations to correct volumes to standard conditions to demonstrate compliance. Separate fuel meters shall be used that measure the volumes (cubic feet) of landfill gas and of all other gaseous fuel used. Fuel usage records shall be maintained identifying the volume of landfill gas and the volume of all other gaseous fuel used annually. The following method shall be used to determine the landfill gas percentage on a volume basis:

$$\text{Landfill Gas Percentage} = \frac{\text{Volume in cubic feet of landfill gas consumed annually} \times 100}{\text{Total Volume in cubic feet of all gaseous fuel consumed annually}}$$

   The volumes in the above equation shall be corrected for standard conditions.

   b. Engines that are exempt from permit under the provisions of Rule 202, Exemptions to Rule 201.

   c. Any derated engine having a maximum allowable and enforceable output rating of less than 50 brake horsepower, provided such rating is specified by the District in an Authority to Construct or Permit to Operate and accepted by the engine owner or operator.

   d. Any compression ignition emergency standby engines, as defined under California Code of Regulations, Title 17, Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines.

2. Any engine that has a total aggregated operational period less than 200 hours per calendar year is exempt from the requirements of this rule, with the exception of the engine identification requirement in Section D.1, the elapsed operating time meter requirement in Section D.2, the recordkeeping provisions in Section J.3, and the compliance schedules for these provisions specified in Section K. The hours per year operating period of a relocated engine that performs the same function as the engine it displaced will be included in calculating the total aggregated operating period for determining applicability of this exemption.

3. Section G requirements for a Compliance Plan shall not be applicable to any compression ignition engines that are subject to an exhaust emission standard in the:

   a. California Code of Regulations, Title 13, Section 2423, for off-road engines, or

   b. 40 CFR, Part 89, for nonroad compression ignition engines.

C. Definitions

See Rule 102 for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Air-balanced pumping engine" means a noncyclically-loaded engine powering a well pump, with the pump using compressed air in a cylinder under the front of the walking beam to offset the weight of the column of rods and fluid in the well, eliminating the need for counterweights.

"Beam-balanced pumping engine" means a cyclically-loaded engine powering a well pump, with the pump counterweight on the back end of the walking beam. The counterweight is moved mechanically without a cylinder supplying air pressure.

"Crank-balanced pumping engine" means a cyclically-loaded engine powering a well pump, with the pump counterweight attached to a gearbox which is attached to the walking beam with a pitman arm. The counterweight is moved mechanically, in a circular motion, without a cylinder supplying air pressure.

"**Cyclically-loaded engine**" means an engine that under normal operating conditions has an external load that varies by 40 percent or more of rated brake horsepower during any load cycle or is used to power a well reciprocating pump including beam-balanced or crank-balanced pumps. Engines powering air-balanced pumps are noncyclically-loaded engines.

"Engine" means any spark or compression ignition engine in which the pistons are contained within a cylinder and move back and forth in a straight line.

"Exhaust controls" means any device or technique used to treat an engine's exhaust to reduce emissions, and include (but are not limited) to catalysts, afterburners, reaction chambers, and chemical injectors.

"**Existing engine**" means an engine that by June 19, 2008;

1. has been issued a valid Authority to Construct, Permit to Operate, or Exemption to a Permit to Operate (or listed as *exempt* on an Authority to Construct or Permit to Operate) pursuant to District rules and regulations; or

2. has been identified in an application for an Authority to Construct submitted to and deemed complete by the District; or

3. has been operated in Santa Barbara County as exempt and now requires a Permit to Operate because of a Rule 202 exemption change effective June 19, 2008.

"Four-stroke engine" means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

"**Lean-burn engine**" means any two-stroke or four-stroke engine where the manufacturer's recommended operating air-to-fuel ratio divided by the stoichiometric air-to-fuel ratio is greater than 1.1. Any existing engine where there are no manufacturer"s recommendations regarding the air-to-fuel ratio will be considered a lean-burn engine if the excess oxygen content of the exhaust at full load conditions is greater than 2 percent by volume. Where exhaust control is employed on such an existing engine, the exhaust gas oxygen content shall be determined from the uncontrolled exhaust stream. Any engine modification that changes any rich-burn engine to a lean-burn engine or vice versa requires approval from the Control Officer in the form of a permit modification.

"**New engine**" is an engine that is not an existing engine.

"**Noncyclically-loaded engine**" means any engine which is not a cyclically-loaded engine.

"ppmv" means parts per million by volume, dry.

"Rich-burn engine" means any spark ignition, four-stroke engine where the manufacturer-recommended operating air-to-fuel ratio divided by the stoichiometric air-to-fuel ratio is less than or equal to 1.1. Any existing engine where there are no manufacturer's recommendations regarding the air-to-fuel ratio will be considered a rich-burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent by volume. Where exhaust control is employed on such an existing engine, the exhaust gas oxygen content shall be determined from the uncontrolled exhaust stream. Any engine modification that changes any rich-burn engine to a lean-burn engine or vice versa requires approval from the Control Officer in the form of a permit modification.

"Stoichiometric air-to-fuel ratio" means the chemically correct air-to-fuel ratio where all fuel and all oxygen in the air and fuel mixture will be consumed.

"Two-stroke engine" means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of the stoichiometric air-to-fuel ratio.

D. Requirements – Engine Identification, Meters, and Continuous Monitoring Systems

The owner or operator of any engine subject to this rule shall ensure each engine meets the following requirements in accordance with the compliance schedule specified in Section K.

1. Any engine subject to this rule shall have a permanently affixed plate, tag, or marking listing:

   a. the engine's make, model, and serial number; or

   b. the owner's or operator's unique identification number.

   The plate, tag, or marking shall be made accessible and legible.

2. Each engine shall be equipped with a nonresettable elapsed operating time meter and the meter shall be maintained in proper operating condition.

3. Each engine shall be equipped with a nonresettable fuel meter or, where approved by the Control Officer in writing, an alternative device, method, or technique for determining fuel consumption. The fuel meter shall be calibrated periodically pursuant to the recommendations of the manufacturer and shall be maintained in proper operating condition.

4. Engines in the following category shall be equipped with a continuous oxides of nitrogen, carbon monoxide, and oxygen monitoring system approved by the Control Officer pursuant to an Authority to Construct:

   New engines rated at 1,000 brake horsepower or greater that:

   a. are installed on or after June 19, 2008, and

   b. are subject to the emission limits specified in Section E, and

c. have Permits to Operate allowing operations in excess of 2,000 hours per year.

This system shall determine and record exhaust gas oxides of nitrogen concentrations and carbon monoxide in parts per million by volume (dry), corrected to 15 percent oxygen. The continuous monitoring system may be a continuous emissions monitoring system or an alternative approved by the Control Officer. Alternatives to a continuous emissions monitoring system must be submitted to and approved by the Control Officer. Continuous emission monitoring systems shall meet the District Continuous Emission Monitoring Protocol (1992) and applicable federal requirements described in 40 CFR Part 60. These include the performance specifications found in Appendix B, Specification 2, the quality assurance requirements found in Appendix F, and the reporting requirements of Parts 60.7(c), 60.7(d), and 60.13.

The monitoring system shall have data gathering and retrieval capability as approved by the Control Officer. All data collected by the monitoring system shall be maintained for at least two years and made available for inspection by the Control Officer. Any Control Officer approved continuous monitoring system for oxides of nitrogen, carbon monoxide, and oxygen shall suffice in lieu of the quarterly monitoring required in Section F.3.

E. Requirements - Emission Limits

Owners or operators of engines shall meet the following requirements in accordance with the compliance schedule set forth in Section K:

1. Rich-Burn Noncyclically-Loaded Spark Ignition Engines

a. The emission concentrations, corrected for oxygen, from any such engine shall not exceed the following limits:

Pollutant	**Limit (ppmv at 15 percent oxygen)**
NOx	50
ROC	250
CO	4,500

b. Engines using either combustion modifications or exhaust controls shall meet the oxides of nitrogen limit specified above, or the oxides of nitrogen shall be reduced by at least 90 percent by mass of the uncontrolled emissions. For engines with exhaust controls, the percent control shall be determined by measuring concurrently the oxides of nitrogen concentration upstream and downstream from the exhaust control. For engines without external control devices, the percent control shall be based on source test results for the uncontrolled engine and the same engine after the control device or technique has been employed. In this situation, the engine‟s typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. The parts per million by volume (dry) limits for reactive organic compounds and carbon monoxide apply to all engines.

2. Lean-Burn Spark Ignition Engines

a. The emission concentrations, corrected for oxygen, from any such engine shall not exceed the following limits:

Any engine with a rated brake horsepower of 50 or greater but less than 100:

Pollutant	Limit (ppmv at 15 percent oxygen)
NOx	200
ROC	750
CO	4,500

Any engine with a rated brake horsepower of 100 or greater:

Pollutant	Limit (ppmv at 15 percent oxygen)
NOx	125
ROC	750
CO	4,500

b. Any engine with a rated brake horsepower of 100 or greater using either combustion modifications or exhaust controls shall meet the oxides of nitrogen requirements specified above, or the oxides of nitrogen shall be reduced by at least 80 percent by mass of the uncontrolled emissions . For engines with exhaust controls, the percent control shall be determined by measuring concurrently the oxides of nitrogen concentration upstream and downstream from the exhaust control. For engines without external control devices, the percent control shall be based on source test results for the uncontrolled engine and the same engine after the control device or technique has been employed. In this situation, the engine‟s typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. The parts per million by volume (dry) limits for reactive organic compounds and carbon monoxide apply to all engines.

3. Rich-Burn Cyclically-Loaded Spark Ignition Engines

The emission concentrations, corrected for oxygen, from any such engine shall not exceed the following limits:

Pollutant	Limit (ppmv at 15 percent oxygen)
NOx	300
ROC	250
CO	4,500

4. Compression Ignition Engines and Dual-Fuel Engines

a. The emission concentrations, corrected for oxygen, from any such engine shall not exceed the following limits:

Pollutant	Limit (ppmv at 15 percent oxygen)
NOx	700
ROC	750
CO	4,500

b. Engines using either combustion modifications or exhaust controls shall meet the oxides of nitrogen limit specified above, or the oxides of nitrogen shall be reduced by at least 40 percent by mass of the uncontrolled emissions. For engines with exhaust controls, the percent control shall be determined by measuring concurrently the oxides of nitrogen concentration upstream and downstream from the exhaust control. For engines without external control devices, the percent control shall be based on source test results for the uncontrolled engine and the same engine after the control device or technique has been employed. In this situation, the engine‟s typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. The parts per million by volume (dry) limits for reactive organic compounds and carbon monoxide apply to all engines.

5. The use of anhydrous ammonia to meet the requirements of this rule is prohibited unless case-specific analysis indicates that the use is acceptable to the Control Officer.

F. Requirements - Owner or Operator Engine Inspection and Maintenance Plan

Any engine subject to the requirements of Section E shall be inspected by the engine owner or operator in accordance with a District-approved Engine Inspection and Maintenance Plan for each stationary source. The owner or operator shall meet the following requirements for the Plan in accordance with the compliance schedule specified in Section K:

1. Obtain the Control Officer‟s approval of the Plan. An Inspection and Maintenance Plan for each stationary source shall be submitted to the District in a format approved by the Control Officer.

2. List all engines by engine classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dual-fuel) and identify the method, engine and control equipment operating parameter ranges, and compliance values, including engine exhaust oxygen concentration ranges, to be used to verify compliance with Section E.

3. A portable emissions analyzer shall be used to take oxides of nitrogen and carbon monoxide emission readings and engine exhaust oxygen concentration readings to determine compliance with the emission limits or percent control specified in Section E during any quarter (or month, if performing monthly monitoring) in which a source test is not performed under Section I and an engine is operated in excess of 20 hours per quarter. If such an engine cannot be operated for portable analyzer emissions testing due to mechanical failure or lack of fuel, the monitoring requirement may be waived provided written Control Officer approval is obtained prior to the end of the quarter (or month, if performing monthly monitoring). All emission readings shall be taken at an engine‟s typical duty cycle. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer‟s specifications and recommendations or a Control Officer approved protocol. The applicable control equipment parameters and engine operating parameters will be inspected and

monitored in conformance with a regular inspection schedule listed in the Plan. A portable analyzer instrument reading in excess of the emission compliance values shall not be considered a violation, so long as the engine is brought into compliance and a follow-up inspection is conducted within 15 days of the initial out-of-compliance reading. If an engine owner or operator or District staff find an engine to be operating outside the acceptable range for control equipment parameters, engine operating parameters, engine exhaust oxides of nitrogen or carbon monoxide concentrations, the owner or operator shall bring the engine into compliance within 15 days. Also, when there has been a portable analyzer instrument reading in excess of the emission compliance values or a source test result in excess of an emission limit or less than the percent control requirement, the inspection and maintenance monitoring schedule will be performed on a monthly basis and continue to be monthly until Rule 333 compliance is demonstrated in three consecutive months (by portable analyzer or source tests).

The results and readings for each engine and control equipment operating parameter identified in the Inspection and Maintenance Plan, the analyzer instrument readings, a description of the corrective actions taken, a determination of whether or not the engine is in compliance, and the name of the person recording the information shall be recorded in an inspection log consistent with the recordkeeping provisions specified in Section J.1.

4. Include preventive and corrective maintenance procedures. Before any change in operations can be implemented, the Plan must be revised as necessary, and the revised Plan must be submitted to and approved by the Control Officer.

G. Requirements - Compliance Plan

The owner or operator of any engine subject to the emission limits in Section E shall submit and obtain the Control Officer's approval of a Compliance Plan. A new or revised Compliance Plan for each stationary source shall be submitted to the District in a format approved by the Control Officer in accordance with the time schedule specified in Section K unless otherwise specified by the Control Officer. The Compliance Plan shall describe all actions, including a schedule of increments of progress, which will be taken to meet the applicable emissions limitations in Section E and the compliance schedule in Section K. The owner or operator shall ensure that the Compliance Plan meets the following requirements:

1. List of all engines by classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dual-fuel), make, model, serial number (or owner's/operator's ID number), rated brake horsepower, type of fuel (including higher heating value and percent or parts per million by volume (dry) sulfur), engine application, total hours of operation in the previous year, typical daily operating schedule, fuel consumption (cubic feet of gas or gallons of liquid) for the previous one year period, engine location and engine Permit to Operate number.

2. List manufacturer-tested typical emission rates or source test values, if available or documentation showing existing emissions of oxides of nitrogen, reactive organic compounds, and carbon monoxide.

3. List the applicable emission limits.

4. List the type of emission control device or method for each engine, and the temperature and flow rate of the exhaust gas, and any auxiliary devices used with the main control device (i.e., air-to-fuel ratio controller, exhaust gas monitor, etc.), the proposed installation completion date for each engine to be controlled, stack modifications to facilitate continuous in-stack monitoring and source testing.

5. An Engine Inspection and Maintenance Plan, as specified in Section F, or at a minimum, a reference to and a statement incorporating the Engine Inspection and Maintenance Plan into the Compliance Plan.

6. List of all existing engines planned for shutdown or electrification and the proposed date of shutdown or electrification.

An owner or operator may modify a Compliance Plan by submitting a modified Plan to the District at least 30 days prior to modifying the equipment or control method for any engine.

Approval of a Compliance Plan does not relieve the owner or operator of engine(s) from the permitting requirements of District Rule 201.

H. [Reserved]

I. Requirements - Source Testing

The owner or operator of any engine subject to the requirements of Section E shall comply with the following:

1. Except as otherwise provided in Section I.8, an initial emissions source test shall be performed on each stationary internal combustion engine to verify compliance with Section E. After the initial source test, source tests shall be performed biennially to demonstrate compliance with Section E. These source tests shall be performed within 30 days of the anniversary date of the initial source test, unless the Control Officer approves a period longer than 30 days. Emissions source testing shall be conducted at an engine's maximum achievable load or, at a minimum, under the engine's typical duty cycle as demonstrated by historical operational data. Source test loads shall be finalized in the source test plan approved by the District per Section I.2. For facilities with more than 20 engines subject to Section E requirements, the Control Officer may, on a case-by-base basis, approve a source"s written request to exclude one or more engines from biennial testing. Such a request shall be submitted with the Plan required in Section I.2.

2. A Source Test Plan shall be submitted to the District and the Control Officer's approval shall be obtained prior to the start of a source test. The approved Plan shall be filed with the District at least 30 days before the start of each source test. The District shall be notified of the date for source testing an engine at least 14 days prior to testing to arrange a mutually agreeable test date. In addition to other information, the Source Test Plan shall describe which critical parameters will be measured for those parameters specified in the Engine Inspection and Maintenance Plan described in Section F.

3. Source testing shall be performed by a source test contractor certified by the Air Resources Board. District required source testing shall not be performed by a source owner or operator unless approved by the Control Officer.

4. For each source test performed, a Source Test Report shall be submitted to the District within 45 days of completing the test. Reactive organic compounds, oxides of nitrogen, and carbon monoxide concentrations shall be reported in parts per million by volume, corrected to 15 percent oxygen. For engines using either combustion modifications or exhaust controls, oxides of nitrogen shall be reported as a percent reduction from the combustion modification or control device.

5. For any engine that is found not to be in compliance with Section E as a result of source testing, the following shall apply:

    a. Repeat a source test to demonstrate compliance with Section E within the time period specified by the District.

    b. Notwithstanding the provisions of SectionI.1, annual source tests shall be conducted on any noncompliant engine until two consecutive annual tests demonstrate the engine is in compliance with Section E. When the engine is demonstrated to be in compliance with Section E by two consecutive annual source tests, the engine shall comply with the provisions of SectionI.1.

6. Engine operating parameters (e.g., timing, manifold vacuum pressure, valve set points, etc.) shall be established using the results of the source test carried out pursuant to Section I.1.

7. Test Methods

   a. Source testing shall be performed in accordance with the following procedures:

      i. Stack gas oxygen: Environmental Protection Agency Method 3A or Air Resources Board Method 100.

      ii. Nitrogen oxides: Environmental Protection Agency Method 7E or Air Resources Board Method 100.

      iii. Carbon monoxide: Environmental Protection Agency Method 10 or Air Resources Board Method 100.

      iv. Reactive organic compounds: Environmental Protection Agency Method 18 with gas chromatography-flame ionization detection speciation analysis for C1, C2, C3, C4, C5, C6+ species.

      v. Pollutant Mass Emission Rate (e.g., pounds per hour): Calculated from stack flow rate data obtained by either 1) the Environmental Protection Agency Methods 1 through 4, or 2) the Environmental Protection Agency Method 19 stack flow rate F factor (ratio of combustion gas volume to heat input), using fuel flow and fuel composition data.

      vi. Fuel rate: District-approved metering system, calibrated within 60 days of the test date. Public utility company regulated utility fuel meters relied on by operators for testing may be allowed an alternative calibration schedule per the Control Officer's discretion. Results must be corrected for standard conditions.

      vii. Determination of the Fuel Composition and Higher Heating Value: The following applicable standards developed by the ASTM International:

         1) ASTM D 1945-03, "Standard Test Method for Analysis of Natural Gas by Gas Chromatography," ASTM International,

         2) ASTM D 3588-98 (2003), "Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels," ASTM International,

         3) ASTM D 107206, "Standard Test Method for Total Sulfur in Fuel Gases," ASTM International,

         4) ASTM D 240-02 (2007), "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter," ASTM International,

         5) ASTM D 4809-06, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method)," ASTM International, and

6) ASTM D 1826-94 (2003), "Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter," ASTM International.

The Control Officer may approve in writing alternative methods for determining the fuel composition or fuel higher heating value.

b. The Control Officer may approve in writing an alternative source test method provided that such method is comparable in accuracy to the procedure in I.7.a and has been approved by the Air Resources Board and the Environmental Protection Agency.

c. At a minimum, three 30 minute test runs shall be performed, and the average concentration from the three runs shall be used for determining compliance unless alternative provisions are specified in an approved source testing plan.

8. Initial and biennial source testing requirements shall not be applicable to any compression ignition engines that are subject to an exhaust emission standard in the:

a. California Code of Regulations, Title 13, Section 2423, for off-road engines, or

b. 40 CFR, Part 89, for nonroad compression ignition engines.

However, a source test shall be triggered for such engine if the result from a portable analyzer emissions monitoring reading (e.g., a result obtained during the monitoring required by Section F.3) exceeds a threshold of 560 parts per million of oxides of nitrogen at 15 percent oxygen, unless the engine is brought into compliance with this threshold value and a follow-up portable analyzer monitoring inspection is conducted within 15 days of the initial over-the-threshold reading.

The owner or operator of the engine shall provide written notification to the Control Officer within two business days of a portable analyzer emissions monitoring reading in excess of the 560 parts per million of oxides of nitrogen at 15 percent oxygen threshold. In addition, portable analyzer monitoring results shall be reported to the APCD within three business days of any follow-up quarterly portable analyzer monitoring.

Source testing of a Tier 1, 2, 3 or 4 engine, if triggered per the above criteria, shall be completed within 60 days of the initial over-the-threshold reading and shall comply with Sections I.2, I.3, I.4, I.5.a, and I.7.

Any compression ignition engine that triggers a source test, and demonstrates compliance with the oxides of nitrogen standard in Section E.4, shall not be subject to another source test for two years from the date of the initial compliant source test. Any compression ignition engine that does not comply with the oxides of nitrogen standard in Section E.4 based on any source test, shall thereafter be subject to source testing on a biennial schedule starting from the date of the initial failed source test.

J. Recordkeeping

1. The owner or operator of any engine subject to the requirements of Section E shall maintain a written Engine Operation, Inspection, and Maintenance Log containing the following information for each engine subject to an emission limit:

a. Engine classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dual-fuel), make, model, and serial number or the owner"s or operator"s unique identification number.

b. Hours of operation, as determined by a nonresettable elapsed operating time meter, since the last inspection.

c. Location of operation of the engine.

d. A summary of any maintenance performed on an emission control device.

e. A summary of any maintenance performed on an engine that affects the emission control device.

f. Observations made during each monthly or quarterly inspection, pursuant to the requirements of Section F.3.

g. Date of each log entry and the printed or typed name of the person entering the log information.

h. For every engine that has been relocated, a notation to that effect identifying both the present and prior location, the reason(s) for the engine relocation, and the elapsed operating time meter readings for both the relocated engine and the engine being displaced.

2. Copies of all Engine Operation, Inspection, and Maintenance Logs shall be retained for a minimum of 2 years after the date of the last entry and shall be available to the District upon request. Thereafter, the Logs shall be retained for an additional 3 years either at the stationary source or in a readily available location that allows for expeditious District inspection and review.

3. For any exemption claimed under Section B.2, maintain a written Engine Exemption Log containing the following information for each engine subject of the claim in accordance with the compliance schedule in Section K:

a. Engine‟s classification (rich-burn noncyclically-loaded spark ignition, rich-burn cyclically-loaded spark ignition, lean-burn spark ignition, compression ignition, or dual-fuel), make, model, and serial number or the owner‟s or operator‟s unique identification number.

b. Hours of operation per quarter (or more often at the owner‟s or operator‟s discretion), as determined by a nonresettable elapsed operating time meter.

c. Location of operation of the engine.

d. Date of each log entry and the printed or typed name of the person entering the log information.

e. For every engine that has been relocated, a notation to that effect identifying both the present and prior location, the reason(s) for the engine relocation, and the elapsed operating time meter readings for both the relocated engine and the engine being displaced.

At a minimum, entries in the Engine Exemption Log shall be performed on the first day the engine is operated in a new quarter and when any engine is relocated. Copies of all such Logs shall be retained at the stationary source for a minimum of 2 years after the date of the last entry and shall be available to the District upon request. Thereafter, the Logs shall be retained for an additional 3 years either at the stationary source or in a readily available location that allows for expeditious District inspection and review.

K. Compliance Schedule

The owner or operator of any engine subject to this rule shall meet the following compliance schedule:

1. New engines:

   Commencing June 19, 2008, any new engine shall comply with this rule the first time it is operated in the District or the outer continental shelf for which the District is the corresponding onshore area.

2. Existing Engines:

   a. For any engine subject to an emission limit:

      The Rule 333 June 19, 2008 revisions resulted in changes in the oxides of nitrogen (NOx) emission limits and the addition of reactive organic compound (ROC) and carbon monoxide emission limits as summarized in the attached Tables 1 and 2.

      Any engine previously subject to any emission limit in the April 17, 1997 adopted Rule 333, shall continue to comply with the emission limit(s) until such time that compliance with a revised emission limit is required. Further, any engine subject to a revised emission limit, as indicated in attached Tables 1 or 2, shall comply with the Rule 333 Section E emission limits by June 19, 2010 unless the engine is permanently removed.

      Any engine that was previously exempt from Rule 333, but became subject to Rule 333 emission limits through the June 19, 2008 Rule 202 revisions shall comply with the Rule 333 Section E emission limits by June 19, 2010 unless the engine is permanently removed.

      An initial source test demonstrating compliance with a new or revised emission limit shall be completed in accordance with Section I prior to June 19, 2010. The owner or operator of any engine to be modified or replaced to comply with the Section E emission limits shall submit an Authority to Construct application to the Control Officer by June 19, 2009.

   b. For any engine that will be permanently removed from service:

      i. by July 19, 2008, comply with the engine identification requirements in Section D.1;

      ii. by December 19, 2008, submit a statement to the Control Officer identifying the engine to be removed; and

      iii. by June 19, 2010, remove the engine.

   c. For any engine subject to the exemption in Section B.2 (operating less than 200 hours per year):

      i. by July 19, 2008, comply with the engine identification requirements in Section D.1 and the recordkeeping provisions in Section J.3; and

      ii. by December 19, 2008, install and comply with the metering requirements in Sections D.2.

   d. For any engine subject to engine identification, plans, or metering requirements in Section D:

i. by July 19, 2008, comply with the engine identification requirements in Section D.1 and the recordkeeping provisions in Section J;

ii. by December 19, 2008:

1) submit a new/revised Engine Inspection and Maintenance Plan for the Control Officer"s approval pursuant to Section F. Any previously approved Engine Inspection and Maintenance Plan will continue to be in force until the Control Officer approves a revised plan; and

2) except as specified in Section B.3, submit a new/revised Compliance Plan for the Control Officer"s approval pursuant to Section G. Previously approved Compliance Plans will continue to be in force until the Control Officer approves a revised Compliance Plan; and

iii. by March 19, 2009, install and comply with the metering requirements in Sections D.2 and D.

Table 1: Summarized Oxides of Nitrogen Emission Limit Changes Resulting from the June 19, 2008 Rule 333 Revision

Engine Type	Category Number	April 17, 1997 Adopted Rule 333 NOx Limits		June 19, 2008 Adopted Rule 333 NOx Limits		Effect of Change
		% Control	ppmv (at 15% O2)	% Control	ppmv (at 15% O2)	
Rich-Burn Noncyclically-Loaded Spark Ignition Engines	1	90	50	90	50	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 bhp Range	2	80	125	-	200	Increased emission limit
Lean-Burn Spark Ignition Engines Rated 100 bhp or Greater	3	80	125	80	125	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines	4	90	50	-	300	Increased emission limit
Compression Ignition Engines and Dual-Fuel Engines	5	-	797	40	700	Decreased emission limit

Table 2: Summarized Reactive Organic Compound and Carbon Monoxide Emission Limit Changes Resulting from the June 19, 2008 Rule 333 Revision

Engine Type	Category Number	April 17, 1997 Adopted Rule 333 Limits, ppmv (at 15% O2)		June 19, 2008 Adopted Rule 333 Limits, ppmv (at 15% O2)		Effect of Change
		ROC	CO	ROC	CO	
Rich-Burn Noncyclically-Loaded Spark Ignition Engines	1	250	4,500	250	4,500	No change
Lean-Burn Spark Ignition Engines in the 50 to less than 100 bhp Range	2	750	4,500	750	4,500	No change
Lean-Burn Spark Ignition Engines Rated 100 bhp or Greater	3	750	4,500	750	4,500	No change
Rich-Burn Cyclically-Loaded Spark Ignition Engines	4	250	4,500	250	4,500	No change
Compression Ignition Engines and Dual-Fuel Engines	5	-	-	750	4,500	New emission limits

RULE 337. SURFACE COATING OF AEROSPACE VEHICLES AND COMPONENTS. (Adopted 7/10/1990, revised 7/24/1990, 10/20/1994, and 6/21/2012)

A. Applicability

This rule is applicable to any person who manufactures any aerospace vehicle coating or aerospace component coating for use within the District, as well as any person who uses, applies, or solicits the use or application of any aerospace vehicle or component coating or associated solvent within the District. Rule 337 does not apply to electronic components.

B. Exemptions

1. Section D.1 shall not apply to any non-complying coatings with separate formulations used in volumes of less than 20 gallons of each non-complying formulation per stationary source in any calendar year. To qualify for this exemption from Section D.1, the total volume of non-complying coatings used at a stationary source does not exceed 200 gallons annually. Coatings used for operations that are exempt per Sections B.2, B.3, B.6, B.8, B.11, B.12, and B.13 shall not be included in calculating the volume of coatings used under this exemption. Any person claiming this exemption shall maintain on a daily basis records consistent with Section H.7 and make them available to the District for review upon request.

2. Section E and H shall not apply to touch-up and repair, provided Section D.1 limits are met and records are maintained pursuant to a Permit to Operate.

3. This rule shall not apply to coatings (including adhesive products and sealant products) supplied as aerosol products in non-refillable containers.

4. Any coating and associated solvent subject to the requirements of this rule shall be exempt from the requirements of Rule 317, Organic Solvents, and Rule 322, Metal Surface Coating Thinner and Reducer. Any coating exempt from this rule shall comply with all other applicable District Rules.

5. This rule shall not apply to any cleaning performed with a solvent (including emulsions) that contains two percent by weight or less of each of the following:

    a. Reactive organic compounds, and

    b. Toxic air contaminants (as determined by generic solvent data, solvent manufacturer's composition data or by a gas chromatography test and a mass spectrometry test).

    c. Any person claiming this exemption shall maintain the records specified in Sections H.1.a and H.1.f in a manner consistent with Section H.9 and make them available for review.

6. This rule shall not apply to coatings that contain less than 20 grams of reactive organic compound per liter (0.17 pounds of reactive organic compound per gallon) of coating, less water and less exempt compounds, as applied.

7. Section D.2 and J.1.a shall not apply to solvents and strippers used in space vehicle manufacturing and rework.

8. This rule shall not apply to chemical milling and electrodeposition (except for electrodeposition of coatings).

9. Section J.1.a shall not apply to any of the following:

a. Cleaning of encasements, including decoy shells or box casings, for electronic components that have a total surface area that is less than 2 square feet;

b. Cleaning of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

c. Cleaning of aircraft transparencies, polycarbonate, or glass substrates;

d. Cleaning of solar cells, coated optics, laser hardware, scientific instruments, high-precision optics, telescopes, microscopes, avionic equipment, military fluid systems, and thermal control surfaces;

e. Wipe cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;

f. Wipe cleaning and surface activation prior to adhesive bonding;

g. Wipe cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems;

h. Wipe cleaning of fuel cells, fuel tanks, and confined spaces.

10. Section E shall not apply to any of the following:

a. Any situation that normally requires the use of an airbrush or an extension on the spray gun to properly reach limited access spaces;
b. The use of airbrush application methods for stenciling, lettering, and other identification markings.

11. The chemical milling maskant limits in Section D.1, Table 337-1, shall not apply to any of the following:

a. Touch-up of scratched surfaces or damaged maskant;

b. Touch-up of trimmed edges.

12. Section D.1 shall not apply to electric- and radiation-effect coatings that have been designated as "classified" by the United States Department of Defense.

13. This rule shall not apply to coatings (including adhesive products and sealant products) subject to the Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, section 94507 et seq.

14. Sections D.2 and J.1.a shall not apply to any of the following:

a. Cleaning or stripping of coating overspray from personal protective equipment;

b. Wipe cleaning or stripping during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used in the interior of the aircraft;

c. Wipe cleaning or stripping of metallic and nonmetallic materials used in honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components.

C. Definitions

See Rule 102, Definitions, for definitions not limited to this rule. For purposes of this rule, the following definitions shall apply:

"Ablative Coating" means any coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating. The ablative char surface serves as an insulative barrier, protecting adjacent components from the heat or open flame.

"Adhesion Promoter" means any very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material.

"Adhesive" means any substance that is used to bond one surface to another surface by attachment or fused union. Adhesives are a type of specialty coating.

"Adhesive Bonding Primer" means any primer applied in a thin film to aerospace components for the purpose of corrosion inhibition and increased adhesive bond strength by attachment.

"Adhesive Product" means any adhesive, glue, cement, mastic, adhesive bonding primer, adhesive primer, adhesive primer for plastics, and any other adhesive primer. Adhesive products are a type of coating.

"Aerospace Vehicle or Component" means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles includes satellites.

"Aircraft Fluid Systems" mean those systems that handle hydraulic fluids, fuel, cooling fluids, or oils.

"Aircraft Transparency" means the aircraft windshield, canopy, passenger windows, lenses and other components which are constructed of transparent materials.

"Airless Spray" means a spray method in which a pump forces the adhesive through an atomizing nozzle at high pressure (1,000 to 6,000 pounds per square inch).

"Antichafe Coating" means any coating applied to areas of moving aerospace components that may rub during normal operations or installation.

"Associated Solvent" means any solvent used in a solvent cleaning machine or for solvent cleaning performed in association with surface coating of any aerospace vehicle or aerospace component.

"Barrier Coating" means any coating applied in a thin film to fasteners to inhibit dissimilar metal corrosion and to prevent galling.

"Bearing Coating" means any coating applied to an antifriction bearing, a bearing housing, or the area adjacent to such a bearing in order to facilitate bearing function or to protect base material from excessive wear. A material shall not be classified as a bearing coating if it can also be classified as a dry lubricative material or a solid film lubricant.

"Bonding Maskant" means any temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding.

"Caulking and Smoothing Compounds" mean semi-solid materials which are applied by hand application methods and are used to aerodynamically smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a caulking and smoothing compound if it can also be classified as a sealant.

"Chemical Agent-Resistant Coating" means any exterior topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents.

"Chemical Milling Maskant" means any coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or Type II etchant. Type I chemical milling maskants are used with a Type I etchant and Type II chemical milling maskants are used with a Type II etchant. This definition does not include bonding maskants, critical use and line sealer maskants, and seal coat maskants. Additionally, maskants that must be used with a combination of Type I or II etchants and any of the above types of maskants (i.e., bonding, critical use and line sealer, and seal coat) are not included. Maskants that are defined as specialty coatings are not included under this definition. Section C provides definitions of Type I and Type II etchants.

"Cleaning Operation" means collectively spray-gun, hand-wipe, and flush cleaning operations.

"Cleaning Solvent" means any liquid material used for hand-wipe, spray gun, or flush cleaning. This definition does not include any solution that contains no reactive organic compounds and no toxic air contaminants.

"Clear Coating" means a transparent coating usually applied over a colored opaque coating, metallic substrate, or placard to give improved gloss and protection to the color coat. In some cases, a clear coat refers to any transparent coating without regard to substrate.

"Coating" means any material that is applied to the surface of an aerospace vehicle or component to form a decorative, protective, or functional solid film, or the solid film itself. Adhesives, sealants, and lubricative material are types of specialty coatings.

"Commercial Exterior Aerodynamic Structure Primer" means any primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae, and landing gear and doors, for the purpose of extended corrosion protection and enhanced adhesion.

"Commercial Interior Adhesive" means any material used in the bonding of passenger cabin interior components. These components must meet the Federal Aviation Administration fireworthiness requirements.

"Compatible Substrate Primer" includes two categories: **"compatible epoxy primer"** and **"adhesive primer." "Compatible epoxy primer"** means any primer that is compatible with the filled elastomeric coating and is epoxy based. The compatible substrate primer is an epoxy-polyamide primer used to promote adhesion of elastomeric coatings such as impact-resistant coatings. **"Adhesive primer"** means any coating that (1) inhibits corrosion and serves as a primer applied to bare metal surfaces or prior to adhesive application, or (2) is applied to surfaces that can be expected to contain fuel. Fuel tank coatings are excluded from this category.

"Compliant Material" means any coating, stripper, or solvent that has a reactive organic compound content or composite partial pressure that complies with the applicable limit in Sections D.1, D.2, or J.1

"Confined Space" means any space that (1) is large enough and so configured that an employee can bodily enter and perform assigned work; (2) has limited or restricted means for entry or exit (for example, fuel tanks, fuel vessels, and other spaces that have limited means of entry); and (3) is not suitable for continuous employee occupancy.

"Contact Bond Adhesive" or **"Contact Adhesive"** means any adhesive intended by the manufacturer to adhere to itself instantaneously upon contact. The adhesive is applied to both adherends and allowed to become dry, which develops a bond when the adherends are brought together without sustained pressure. for application to both surfaces to be bonded together, is allowed to dry before the two surfaces are placed in contact with each other, forms an immediate bond that is impossible, or difficult, to reposition after both

adhesive-coated surfaces are placed in contact with each other, and does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. Contact adhesive does not include rubber cements that are primarily intended for use on paper substrates. Contact adhesive also does not include vulcanizing fluids that are designed and labeled for tire repair only.

"Contact Bond Adhesive-Specialty Substrates" or **"Specialty Contact Adhesive"** means any contact adhesive that is intended by the manufacturer to be used for the bonding of nonporous substrates to each other, the bonding of decorative laminate in post-forming application, the bonding of decorative laminate to metal, melamine-covered board, or curved surfaces, or the bonding of any substrate to metal, rubber, rigid plastic, or wood veneer not exceeding 1/16 inch in thickness.

"Control" means the reduction, by destruction or removal, of the amount of affected pollutants in a gas stream prior to discharge to the atmosphere.

"Control System" means any combination of pollutant capture system(s) and control device(s) used to reduce discharge to the atmosphere of reactive organic compound or toxic air contaminant emissions generated by a regulated operation.

"Corrosion Prevention System" means any coating system that provides corrosion protection by displacing water and penetrating mating surfaces, forming a protective barrier between the metal surface and moisture. Coatings and compounds containing oils or waxes are excluded from this category.

"Critical Use and Line Sealer Maskant" means any temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid or alkaline solutions such as those used in anodizing, plating, chemical milling and processing of magnesium, titanium, or high-strength steel, high-precision aluminum chemical milling of deep cuts, and aluminum chemical milling of complex shapes. Materials used for repairs or to bridge gaps left by scribing operations (i.e., line sealer) are also included in this category.

"Cryogenic Flexible Primer" means any primer designed to provide corrosion resistance, flexibility, and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (minus 275 degrees Fahrenheit and below).

"Cryoprotective Coating" means any coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry, and prevent ice formation.

"Cyanoacrylate Adhesive" means any fast-setting, single component adhesive that cures at room temperature. Also known as "super glue."

"Depainting" means the removal of a permanent coating from the outer surface of an aerospace vehicle or component.

"Depainting Operation" means the use of a chemical agent, media blasting, or any other technique to remove permanent coatings from the outer surface of an aerospace vehicle or components. The depainting operation includes washing of the aerospace vehicle or component to remove residual stripper, media, or coating residue.

"Detailing or Touch-up Guns" mean any small air spray equipment, including air brushes, that operate at no greater than 5 cubic feet per minute air flow and no greater than 50 pounds per square inch gauge air pressure and are used to coat small products or portions of products.

"Dip Coat Application" means any process in which a substrate is immersed in a solution (or dispersion) containing the coating material, and then withdrawn.

"Dry Lubricative Material" means any coating consisting of lauric acid, cetyl alcohol, waxes, or other non-cross linked or resin-bound materials which act as a dry lubricant.

"Electric- or Radiation-Effect Coating" mean any coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared, or microwave regions. Uses include, but are not limited to, lightning strike protection, electromagnetic pulse protection, and radar avoidance.

"Electrodeposition" means the application of a coating using a water-based electrochemical bath process. The component being coated is immersed in a bath of the coating. An electric potential is applied between the component and an oppositely charged electrode hanging in the bath. The electric potential causes the ionized coating to be electrically attracted, migrated, and deposited on the component being coated.

"Electrostatic Discharge and Electromagnetic Interference Coating" means any coating applied to space vehicles, missiles, aircraft radomes, and helicopter blades to disperse static energy or reduce electromagnetic interference.

"Elevated-Temperature Skydrol-Resistant Commercial Primer" means any primer applied primarily to commercial aircraft (or commercial aircraft adapted for military use) that must withstand immersion in phosphate-ester (PE) hydraulic fluid (Skydrol 500b or equivalent) at the elevated temperature of 150 degrees Fahrenheit for 1,000 hours.

"Epoxy Polyamide Topcoat" means any coating used where harder films are required or in some areas where engraving is accomplished in camouflage colors.

"Exterior Primer" means the first layer and any subsequent layers of identically formulated coating applied to the exterior surface of an aerospace vehicle or component where the component is used on the exterior of the aerospace vehicle. Exterior primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent exterior topcoats. Coatings that are defined as specialty coatings are not included under this definition.

"Extreme Performance Interior Topcoat" means a topcoat used in interior spaces of aircraft areas requiring a fluid, stain, or nicotine barrier.

"Fastener Manufacturer" means any stationary source that coats aircraft fasteners, such as pins, collars, bolts, nuts, and rivets, with solid-film lubricants for distribution.

"Fastener Sealant" means any sealant applied to a device used to join two or more parts together.

"Fire-Resistant (Interior) Coating" means:

1. For civilian aircraft, any coating used on passenger cabin interior parts that are subject to the Federal Aviation Administration fireworthiness requirements.

2. For military aircraft, any coating used on parts that are subject to the flammability requirements of MIL-STD-1630A and MIL-A-87721.

3. For space applications, any coating used on parts that are subject to the flammability requirements of SE-R-0006 and SSP 30233.

"Flexible Primer" means any primer that meets flexibility requirements such as those needed for adhesive bond primed fastener heads or on surfaces expected to contain fuel. The flexible coating is required because it provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings as well as a flexible bridge between the fasteners, skin, and skin-to-skin joints on outer aircraft skins. This flexible bridge allows more topcoat flexibility around fasteners and decreases the chance of the topcoat cracking around the fasteners. The result is better corrosion resistance.

"Flight Test Coating" means any coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation.

"Flow Coat Application" means any coating application system, with no air supplied to the nozzle, where paint flows over the part and the excess coating drains back into the collection system.

"Flush Cleaning" means the removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component or application equipment by passing solvent over, into, or through the item being cleaned. The solvent may simply be poured into the item being cleaned and then drained, or be assisted by air or hydraulic pressure, or by pumping. Hand-wipe cleaning operations where wiping, scrubbing, mopping, or other hand actions are used are not included.

"Fuel Tank Adhesive" means any adhesive used to bond components exposed to fuel and must be compatible with fuel tank coatings.

"Fuel Tank Coating" means any coating applied to fuel tank components for the purpose of corrosion and/or bacterial growth inhibition and to assure sealant adhesion in extreme environmental conditions.

"Grams of Reactive Organic Compound per Liter of Coating, Less Water and Less Exempt Compounds" means the weight of reactive organic compound per combined volume of reactive organic compound and coating solids and can be calculated by the following equation:

$$\text{Grams of reactive organic compounds per liter of coating, less water and less exempt compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:

W_s = Weight of volatile compounds in grams
W_w = Weight of water in grams
W_{es} = Weight of exempt compounds in grams
V_m = Volume of material in liters
V_w = Volume of water in liters
V_{es} = Volume of exempt compounds in liters

For aerospace coatings that contain reactive diluents, the grams of reactive organic compound per liter of coating, less water and less exempt compounds, shall be calculated by the following equation:

$$\text{Grams of reactive organic compounds per liter of coating, less water and less exempt compounds} = \frac{W_{rs} - W_{rw} - W_{re}}{V_{rm} - V_{rw} - V_{re}}$$

Where:

W_{rs} = Weight of volatile compounds not consumed during curing in grams
W_{rw} = Weight of water not consumed during curing in grams
W_{re} = Weight of exempt compounds not consumed during curing in grams
V_{rm} = Volume of material not consumed during curing in liters
V_{rw} = Volume of water not consumed during curing in liters
V_{re} = Volume of exempt compounds not consumed during curing in liters

"Hand Application Method" means the application of a surface coating by manually held non-mechanically operated equipment. Such equipment includes paint brush, hand-roller, trowel, spatula, dauber, rag or sponge.

"Hand-Wipe Cleaning Operation" means the removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component by physically rubbing it with a material such as a rag, paper, or cotton swab that has been moistened with a cleaning solvent.

"High Temperature Coating" means any coating designed to withstand temperatures of more than 350 degrees Fahrenheit.

"Insulation Covering" means any material that is applied to foam insulation to protect the insulation from mechanical or environmental damage.

"Interior Topcoat" means any topcoat used inhabitable interior spaces of aircraft.

"Intermediate Release Coating" means any thin coating applied beneath topcoats to assist in removing the topcoat in depainting operations and generally to allow the use of less hazardous depainting methods.

"Lacquer" means any clear or pigmented coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction. Lacquers are resoluble in their original solvent.

"Limited Access Space" means any internal surfaces or passages of an aerospace vehicle or component that cannot be reached without the aid of an airbrush or a spray gun extension for the application of coatings.

"Long Term Adhesive Bonding Primer" means any adhesive bonding primer that has met the aircraft manufacturers' required performance characteristics following 6,000 hours testing, used for metal to structural core bonding, and with an adhesive that is specified to be cured at a temperature of 350 degrees Fahrenheit plus or minus 10 degrees Fahrenheit.

"Metalized Epoxy Coating" means any coating that contains relatively large quantities of metallic pigmentation for appearance and/or added protection.

"Mold Release" means any coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed.

"Natural Draft Opening" means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

"Non-Complying Coating" means a coating with a reactive organic compound content above a limit specified in Section D.1.

"Noncompliant Material" means any coating, stripper, or solvent that has a reactive organic compound content or composite partial pressure that does not comply with the applicable limit in Sections D.1, D.2, or J.1.

"Nonstructural Adhesive" means any adhesive that bonds nonload bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories.

"Optical Anti-Reflective Coating" means any coating with a low reflectance in the infrared and visible wavelength ranges that is used for antireflection on or near optical and laser hardware.

"Part Marking Coating" means any coatings or inks used to make identifying markings on materials, components, and/or assemblies. These markings may be either permanent or temporary.

"Pretreatment Coating" means any organic coating that contains at least 0.5 percent acids by weight and is applied directly to metal or composite surfaces to provide surface etching, corrosion resistance, adhesion, and ease of stripping.

"Primer" means the first layer and any subsequent layers of identically formulated coating applied to the surface of an aerospace vehicle or component. Primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent coatings. Primers that are defined as specialty coatings are not included under this definition.

"Radome" means the nonmetallic protective housing for electromagnetic transmitters and receivers (e.g., radar, electronic countermeasures, etc.).

"Rain Erosion-Resistant Coating" means any coating or coating system used to protect the leading edges of parts such as flaps, stabilizers, radomes, engine inlet nacelles, etc. against erosion caused by rain impact during flight.

"Reactive Diluent" means a liquid which is a reactive organic compound during application and one in which, through chemical and/or physical reactions, such as polymerization, 20 percent or more of the reactive organic compound becomes an integral part of a finished material.

"Remanufactured Commercial Aircraft Part" means any aerospace component that is built as a spare part or replacement part subject to an existing commercial aircraft specification.

"Rocket Motor Bonding Adhesive" means any adhesive used in rocket motor bonding applications.

"Rocket Motor Nozzle Coating" means any catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles.

"Rubber-Based Adhesive" means any quick setting contact cement that provides a strong, yet flexible bond between two mating surfaces that may be of dissimilar materials.

"Scale Inhibitor" means any coating that is applied to the surface of a part prior to thermal processing to inhibit the formation of scale.

"Screen Print Ink" means any ink used in screen printing processes during fabrication of decorative laminates and decals.

"Seal Coat Maskant" means any overcoat applied over a maskant to improve abrasion and chemical resistance during production operations.

"Sealant" means any material used to prevent the intrusion of water, fuel, air, or other liquids or solids from certain areas of aerospace vehicles or components. There are two categories of sealants: extrudable/rollable/brushable sealants and sprayable sealants. Sealants are a type of specialty coating.

"Sealant Product" means any sealant and sealant primer. Sealant products are a type of coating.

"Self-Priming Topcoat" means any topcoat that is applied directly to an uncoated aerospace vehicle or component for purposes of corrosion prevention, environmental protection, and functional fluid resistance. More than one layer of identical coating formulation may be applied to the vehicle or component.

"Short Term Adhesive Bonding Primer" means any adhesive bonding primer that has met the manufacturers' required performance characteristics following 1,000 hours testing, used for metal to metal and metal to structural core bonding, and with an adhesive which is specified to be cured at a temperature of 350 degrees Fahrenheit plus or minus 10 degrees Fahrenheit.

"Silicone Insulation Material" means any insulating material applied to exterior metal surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust. These materials differ from ablative coatings in that they are not "sacrificial."

"Solid Film Lubricant" means any very thin coating consisting of a binder system containing as its chief pigment material one or more of the following: molybdenum, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying surfaces.

"Solids" mean the non-volatile portion of the coating which after drying makes up the dry film.

"Solvent" means any liquid containing any reactive organic compound or any toxic air contaminant, which is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent, drying agent, preservative, or other similar uses.

"Solvent Cleaning" means any activity, operation, or process (including, but not limited to, surface preparation, cleanup, or wipe cleaning) performed outside of a solvent cleaning machine, that uses solvent to remove uncured adhesives, uncured coatings, uncured inks, uncured polyester resin material, uncured sealant, or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment, and general work areas. Cleaning spray equipment used for the application of coating, adhesive, ink, polyester resin material, or sealant is also considered to be solvent cleaning irrespective of the spray material being cured.

"Solvent Cleaning Machine" means any device or piece of equipment that uses solvent liquid or vapor to remove soils, moisture, or other contaminants from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch cold, batch vapor, in-line cold, in-line vapor, remote reservoir, and gas-path solvent cleaners. Buckets, pails, and beakers with capacities of 3.785 liters (1.00 gallon) or less are not considered solvent cleaning machines. However, the use of such a container or similar containers (e.g., hand-held spray bottles) with a liquid solvent for cleaning is considered to be solvent cleaning. Any device or piece of equipment used exclusively for stripping shall not be considered to be a solvent cleaning machine.

"Sonic and Acoustic Applications" means the use of aerospace materials on aerospace components that are subject to mechanical vibration and/or sound wave cavitation.

"Space Vehicle Coating" means any coating applied to vehicles designed to travel beyond the earth's atmosphere.

"Specialized Function Coating" means any coating that fulfills extremely specific engineering requirements that are limited in application and are characterized by low volume usage. This category excludes coatings covered in other Specialty Coating categories.

"Specialty Coating" means any coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection. The reactive organic compound content limit for the individual specialty coatings are listed in Section D.1, Table 337-2. Definitions for each specialty coating category are provide in Section C.

"Spray Gun" means any device that atomizes a coating or other material and projects the particulates or other material onto a substrate.

"Stripper" means any liquid that is applied to a surface to remove cured or dried coatings such as primers, adhesives (e.g., debonding or unglueing), topcoats, and temporary protective coatings.

"Structural Autoclavable Adhesive" means any adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave.

"Structural Nonautoclavable Adhesive" means any adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or for other critical functions, such as nonstructural bonding in the proximity of engines.

"Surface Preparation" means the removal of contaminants from the surface of an aerospace vehicle or component or the activation or reactivation of the surface in preparation for the application of a coating.

"Temporary Protective Coating" means any coating applied to provide scratch or corrosion protection during manufacturing, storage, or transportation. Two types include peelable protective coatings and alkaline removable coatings. These materials are not intended to protect against strong acid or alkaline solutions. Coatings that provide this type of protection from chemical processing are not included in this category.

"Thermal Control Coating" means any coating formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate.

"Topcoat" means any coating applied over a primer on an aerospace vehicle or component for appearance, identification, camouflage, or protection. Coatings that are defined as specialty coatings are not included under this definition.

"Touch-Up" means that portion of the coating operation which is separate from the main coating process but necessary to cover minor imperfections or to achieve coverage as required.

"Touch-Up and Repair" means that portion of the coating operation that is the incidental application of coating used to cover minor imperfections in the coating finish or to achieve complete coverage. This definition includes out-of-sequence or out-of-cycle coating.

"Type I Chemical Milling Maskant" see the **"Chemical Milling Maskant"** definition**.**

"Type II Chemical Milling Maskant" see the **"Chemical Milling Maskant"** definition**.**

"Type I Etchant" means any chemical milling etchant that contains varying amounts of dissolved sulfur and does not contain amines.

"Type II Etchant" means any chemical milling etchant that is a strong sodium hydroxide solution containing amines.

"Viscosity" means the internal friction of a liquid that makes it resistant to flow.

"Wet Fastener Installation Coating" means any primer or sealant applied by dipping, brushing, or daubing to fasteners that are installed before the coating is cured.

"Wing Coating" means any corrosion-resistant coating that is resilient enough to withstand the flexing of the wings.

D. Requirements – Reactive Organic Compound Limits

1. No person shall apply any coating or solicit the use of any coating on any aerospace vehicle or component subject to the provisions of this rule, which, as applied, contains reactive organic compounds in excess of the limits shown in the tables below. These limits are expressed in grams of reactive organic compound per liter of coating, less water and less exempt compounds:

Table 337-1: Reactive Organic Compound Content Limits for Coatings Other than Specialty Coatings (Grams of Reactive Organic Compound per Liter, Less Water and Less Exempt Compounds)

Coating Type	ROC Limit
	Effective June 21, 2012
Exterior Primer	350
Primer	350
Self-Priming Topcoat	420
Topcoat	420
Type I Chemical Milling Maskant	250
Type II Chemical Milling Maskant	160

Table 337-2: Reactive Organic Compound Content Limits for Specialty Coatings (Grams of Reactive Organic Compound per Liter, Less Water and Less Exempt Compounds)

Coating Type	ROC Limit	
	Effective Before June 21, 2014	Effective On and After June 21, 2014
Ablative Coating	600	600
Adhesion Promoter	850	250
Adhesive Bonding Primers:		
New Commercial Aircraft	250	250
All Military Aircraft	805	805
Remanufactured Commercial Aircraft Parts	805	805
Sonic and Acoustic Applications	805	805
Long Term	250	250
Short Term	250	250
Adhesives:		
Commercial Interior Adhesive	760	760
Cyanoacrylate Adhesive	1020	1020
Fuel Tank Adhesive	620	620
Nonstructural Adhesive	250	250
Rocket Motor Bonding Adhesive	890	890
Rubber-Based Adhesive	850	850
Structural Autoclavable Adhesive	50	50
Structural Nonautoclavable Adhesive	850	850
Antichafe Coating	600	420
Barrier Coating	420	420
Bearing Coating	620	620
Caulking and Smoothing Compounds	850	850
Chemical Agent-Resistant Coating	550	550
Clear Coating	520	520
Commercial Exterior Aerodynamic Structure Primer	350	350
Compatible Substrate Primer	350	350
Corrosion Prevention System Compound	710	710
Cryogenic Flexible Primer	350	350

Coating Type	ROC Limit	
	Effective Before June 21, 2014	Effective On and After June 21, 2014
Cryoprotective Coating	600	600
Dry Lubricative Material		
Fastener Manufacturing	120	120
Nonfastener Manufacturing	675	675
Electric- or Radiation-Effect	800	800
Electrostatic Discharge and Electromagnetic Interference Coating	800	800
Elevated-Temperature Skydrol-Resistant Commercial Primer	350	350
Epoxy Polyamide Topcoat	660	660
Extreme Performance Interior Topcoat	420	420
Fastener Sealant	675	600
Fire-Resistant (Interior) Coating	600	600
Flexible Primer	350	350
Flight-Test Coatings:		
Missile or Single Use Aircraft	420	420
All Other	600	600
Fuel Tank Coating (Excluding Fuel Tank Adhesive)	420	420
High-Temperature Coating	720	720
Interior Topcoat	340	340
Insulation Covering	740	740
Intermediate Release Coating	750	750
Lacquer	830	830
Maskants:		
Bonding Maskant	1,230	1,230
Critical Use and Line Sealer Maskant	1,020	1,020
Seal Coat Maskant	1,230	1,230
Metallized Epoxy Coating	700	700
Mold Release	780	780
Optical Anti-Reflective Coating	700	700
Part Marking Coating	850	850
Pretreatment Coating	780	780
Rain Erosion-Resistant Coating	600	600
Rocket Motor Nozzle Coating	660	660
Scale Inhibitor	880	880
Screen Print Ink	840	840
Sealant		
Extrudable/Rollable/Brushable Sealant	280	280
Sprayable Sealant	600	600
Silicone Insulation Material	850	850
Solid Film Lubricants		
Fastener Manufacturing	250	250
Fastener Installation	880	880
Nonfastener Manufacturing	880	880

Coating Type	ROC Limit	
	Effective Before June 21, 2014	Effective On and After June 21, 2014
Space Vehicle Coating:		
Electrostatic-Discharge	800	800
Other	1,000	1,000
Specialized Function Coating	890	890
Temporary Protective Coating	250	250
Thermal Control Coating	800	800
Wet Fastener Installation Coating	675	675
Wing Coating	750	750

2. No person shall apply any stripper or solicit the use of any stripper unless it complies with one or both of the following:

   a. The stripper contains less than 300 grams of reactive organic compound per liter of material (2.50 pounds of reactive organic compound per gallon).

   b. The stripper has a reactive organic compound composite partial pressure equal to or less than 9.5 millimeters of mercury at 20 degrees Celsius.

3. A person may elect to use an add-on control system as an alternative to meeting the requirements of Sections D.1, D.2, E, and J, provided all of the applicable requirements below are met. Any person choosing to install such control equipment shall obtain an Authority to Construct from the District prior to installation.

   a. The overall efficiency (the capture efficiency multiplied by the control device efficiency) of the total system shall not be less than 85.5 percent, by weight. Alternatively, the control device reactive organic compound exhaust concentration shall not exceed 10 parts per million by volume as propane or other limit approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

   b. Combustion temperature shall be continuously monitored when operating a thermal incinerator.

   c. Inlet and exhaust gas temperatures shall be continuously monitored when operating a catalytic incinerator.

   d. Control device efficiency shall be continuously monitored when operating a carbon adsorber or a control device other than a thermal or catalytic incinerator.

   e. Compliance through the use of an add-on control system shall not result in affected pollutant emissions in excess of the affected pollutant emissions that would result from compliance with Sections D.1, D.2, E, and J.

E. Requirements – Application Equipment

No person shall apply coatings subject to this rule unless the application is performed with equipment operating according to the manufacturers operating guidelines. In addition, except as provided in Section D.3, the application method employed shall be one of the following:

1. Electrostatic spray application, or

2. Flow coat application, or

3. Dip coat application, or

4. Roll coater, or

5. High volume low pressure spraying equipment, or

6. Electrodeposition, or

7. Hand application methods, or

8. Detailing or touch-up guns, or

9. Any other application method approved by the Control Officer, the Air Resources Board, and the Environmental Protection Agency, that has a coating transfer efficiency equivalent to or greater than 65 percent efficiency as measured using the test method specified in Section I.4.

10. Except as otherwise provided in Section E.11, air-atomized spray may only be used for the application of contact adhesives or specialty contact adhesives.

11. For adhesive products and sealant products with an as applied viscosity of 200 centipoise or greater, airless spray, air-assisted airless, and air-atomized spray may be used.

F. Requirements – General Operating

Any person who owns, operates, or uses any surface coating or depainting equipment for any aerospace vehicle or component coating operation shall meet the following requirements:

1. All reactive organic compound-containing materials, used or unused, including but not limited to surface coatings, thinners, cleanup solvents, strippers, or surface preparation materials shall be stored and disposed of in nonabsorbent and nonleaking containers equipped with tight-fitting covers. All covers shall be in place unless adding material to or removing material from the containers, the containers are empty, or doing maintenance/inspection of the containers.

2. All application equipment, ventilation system, and emission control equipment shall be installed, operated, and maintained consistent with the manufacturer's specifications.

3. Waste solvent, waste solvent residues, and any other waste material that contains reactive organic compounds shall be disposed of by one of the following methods:

   a. A commercial waste solvent reclamation service licensed by the State of California.

   b. At a facility that is federally or state licensed to treat, store or dispose of such waste.

   c. Recycling in conformance with Section 25143.2 of the California Health and Safety Code.

4. All covers, valves, drain plugs, and other closure devices designed to reduce surface coating, stripper, or solvent evaporation shall not be removed or opened except to process work or to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers or other closure devices.

5. Any surface coating, stripper, or solvent spills shall be wiped up immediately and the used absorbent material (e.g., cloth, paper, sand, sawdust, etc.) shall be stored in closed containers that are handled in accordance with Section F.1.

6. The handling and transfer of coatings, strippers, and cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent coatings, strippers, and cleaning solvents shall be conducted in such a manner to minimize spills.

7. Containers used to store coating, solvent, or any waste material that contains reactive organic compounds subject to this rule shall be marked or clearly labeled indicating the name of the material they contain.

G. Requirements – Manufacturer Labeling

1. Each container of any coating subject to this rule shall display the date on which the contents were manufactured or a code indicating the date of manufacture. Each manufacturer of such coatings shall file with the Air Pollution Control Officer and the Executive Officer of the California Air Resources Board an explanation of each code.

2. Each container of any coating subject to this rule shall display a statement of the manufacturer's recommendation regarding thinning of the coating. This recommendation shall not apply to the thinning of coatings with water. The recommendation shall specify that the coating is to be employed without thinning or diluting under normal environmental and application conditions unless any thinning recommended on the label for normal environmental and application conditions does not cause a coating to exceed its applicable standard for reactive organic compound content.

3. Each container of any coating subject to this rule shall display the maximum reactive organic compound content of the coating, as applied, and after any thinning as recommended by the manufacturer. Reactive organic compound content shall be displayed as grams per liter or pounds per gallon of coating, less water and less exempt compounds. The volatile organic compound content may be displayed instead of the reactive organic compound content as long as the manufacturer's definition of volatile organic compound is consistent with the definition of reactive organic compound contained in District Rule 102, Definitions. Reactive organic compound content displayed may be calculated using product formulation data and the formula in Section C, or may be determined using the test method in Section I.1.

H. Requirements – Recordkeeping

Any person subject to this rule shall comply with the following requirements. Any owner or operator of any stationary source comprised of more than one facility may comply with the following requirements on a facility basis.

1. Maintain a current file of all reactive organic compound-containing materials in use at the stationary source subject to this rule. The file shall provide all of the data necessary to evaluate compliance and shall include the following information, as applicable:

    a. material name and manufacturer identification (e.g., brand name, stock identification number);

    b. application method;

    c. material type, manufacturer’s specific use instructions (e.g., specific use for which the material is intended), type operation (e.g., coating, stripping, or solvent cleaning), and, for coating operations, the coating type from Table 337-1 or Table 337-2 and equipment coated;

    d. specific mixing data (e.g., component volumes or weights) of each component for each batch sufficient to determine the mixture’s reactive organic compound content;

e. the corresponding reactive organic compound limit(s) from Sections D.1, D.2, and J.1 and the actual as applied reactive organic compound content of coating used. If complying using the "reactive organic compound composite partial pressure" method only, provide the actual reactive organic compound composite partial pressure of the materials used; and

f. current coating, stripper, and solvent manufacturer specification sheets, Material Safety Data Sheets, product data sheets, or air quality data sheets, which list the reactive organic compound content of each material in use at the stationary source subject to this rule. Compliance with this provision may be done by ensuring the manufacturer's specifications are listed on the product container.

2. Maintain records for each reactive organic compound-containing material purchased for use at the stationary source. The records shall include, but not be limited to, the following:

a. material name and manufacturer identification (e.g., brand name, stock identification number); and

b. material type (e.g., coating type from Table 337-1 or Table 337-2, cleanup solvent, stripper, etc.).

3. Maintain records of the disposal method each time waste solvent, waste solvent residue, or other waste material that contain reactive organic compounds is removed from the stationary source for disposal.

4. For each material maintained in response to Section H.1.a, maintain at a minimum, on a monthly basis for compliant material and on a daily basis for noncompliant material, a record of the following:

a. volume used (gallons per day, gallons per month);

b. reactive organic compound content (grams per liter or pounds per gallon); and

c. resulting reactive organic compound emissions (pounds per day, pounds per month).

5. For any stationary source that uses emission control equipment as an alternative to meeting the requirements of Sections D.1, D.2, E, or J, daily records of key operating parameter values and maintenance procedures that demonstrate continuous operation and compliance of the emission control system during periods of emission producing activities shall be maintained. These parameters shall include, but not be limited to:

a. Hours of operation;

b. All maintenance work that requires the emission control system to be shut down;

c. All information needed to demonstrate continuous compliance with Section D.3, such as temperatures, pressures, and/or flow rates.

6. Any records required to be maintained pursuant to this rule shall be kept on site for at least 2 years unless a longer retention period is otherwise required by state or federal regulation(s). Such records shall be readily available for inspection and review by the District.

7. Any person claiming an exemption under Section B.1 shall maintain:

a. Daily records of the volumes in gallons of noncomplying coating materials used by each separate formulation at the stationary source.

b. Annual running totals, from January 1 of each calendar year, of the volume in gallons of non-complying coating materials used at the stationary source for:

1) Each separate formulation.

2) All formulations.

I. Requirements – Compliance Provisions and Test Methods

1. Coatings and solvent reactive organic compound content shall be measured by the Environmental Protection Agency Reference Method 24, its constituent methods, or an equivalent method approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer. The determination of exempt compounds shall be performed in accordance with ASTM D 4457-1991, **"**Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph," ASTM International. Alternatively, determination of exempt compounds may be performed in accordance with the South Coast Air Quality Management District Method 303-91, "Determination of Exempt Compounds," August 1996. The reactive organic compound content of materials containing 50 grams of reactive organic compound per liter or less shall be determined by the South Coast Air Quality Management District Method 313-91, **"**Determination of Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry," June 1993, or any other test methods approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

2. The control device efficiency for reactive organic compound emissions shall be determined by Environmental Protection Agency Test Methods 25, 25A, the South Coast Air Quality Management District Method 25.1, **"**Determination of Total Gaseous Non-Methane Organic Emissions as Carbon," February 1991, or the South Coast Air Quality Management District Method 25.3, **"**Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources," March 2000, as applicable. Environmental Protection Agency Test Method 18 or Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990, shall be used to determine emissions of exempt compounds.

3. The capture efficiency for reactive organic compound emissions shall be July 1,determined by verifying the use of a Permanent Total Enclosure and 100 percent capture efficiency as defined by Environmental Protection Agency Method 204, **"**Criteria for and Verification of a Permanent or Temporary Total Enclosure." Alternatively, if an Environmental Protection Agency Method 204 defined Permanent Total Enclosure is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the Environmental Protection Agency technical guidance document **"**Guidelines for Determining Capture Efficiency, January 9, 1995." Individual capture efficiency test runs subject to the Environmental Protection Agency technical guidelines shall be determined by:

a. The Temporary Total Enclosure approach of Environmental Protection Agency Methods 204 through 204F; or

b. The South Coast Air Quality Management District **"**Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency," May 1995

4. Application equipment coating transfer efficiencies shall be measured using South Coast Air Quality Management District Method **"**Spray Equipment Transfer Efficiency Test Procedure for Equipment User,**"** May 1989.

5. Reactive organic compound composite partial pressures shall be measured using ASTM D 2879-1997,**"**Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope," ASTM International, in combination with the formula in the Rule 102 definition of **"**reactive organic compound composite partial pressure," manufacturer's specified reactive organic compound composite partial pressure, or an accepted scientific reference approved the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

6. The control device efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined using:

   a. an Environmental Protection Agency approved test method or methods, or

   b. in the case where there is no Environmental Protection Agency approved test method, a District approved detection method applicable for each target toxics specie.

   c. the Control Officer may require more than one test method on any emission control device where necessary to demonstrate that the overall efficiency is at least 85.5 percent by weight in reducing emissions of reactive organic compounds and/or toxic air contaminants. Any technique to convert "parts per million by volume" test method results to either 1) "parts per million by weight," or 2) "mass emission rates" (e.g., pounds per hour) shall first be approved by the Control Officer and, if such approval is not provided, then the technique shall not be used to show compliance with this rule.

7. The capture efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined by using the methods described in Section I.3 modified in a manner approved by the District to quantify the mass of liquid or gaseous reactive organic compounds and/or toxic air contaminants.

8. The active and passive solvent losses from spray gun cleaning systems shall be determined using South Coast Air Quality Management District's, "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," dated October 3, 1989. The test solvent for this determination shall be any lacquer thinner with a minimum reactive organic compound composite partial pressure of 105 millimeters of mercury at 20 degrees Celsius, and the minimum test temperature shall be 15 degrees Celsius.

9. Viscosity shall be determined by ASTM D 1084-88, "Standard Test Methods for Viscosity of Adhesives," ASTM International.

10. Emissions of reactive organic compounds from the exhaust of an emission control system shall be measured by the Environmental Protection Agency Method 25, in combination with Environmental Protection Agency Method 18 or the California Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990 (to determine emissions of exempt compounds).

11. When more than one test method or set of test methods are specified for any testing, a test result showing an exceedance of any limit of this rule shall constitute a rule violation.

12. The Environmental Protection Agency test methods in effect on June 21, 2012 shall be the test methods used to meet the requirements of this rule.

J. Requirements – Solvent Cleaning Associated with Surface Coating of Aerospace Vehicles and Components

Section J requirements shall apply to any person performing solvent cleaning associated with surface coating of aerospace vehicles or components, including, but not limited to, use of wipe cleaning cloths, hand-held spray bottles, squirt bottles, aerosol products, and the cleaning of application equipment. The following requirements become effective June 21, 2013 and are in addition to the general operating requirements specified in Section F.

1. **Solvent Requirements**

Except when using an emission control system that meets the requirements of Section D.3, no person shall use any solvent to perform solvent cleaning which exceeds the following limits:

a. **When Performing Surface Preparation for Coating Application and Cleanup (Other than Spray Application Equipment Cleaning):**

1) 200 grams of reactive organic compound per liter (1.67 pounds of reactive organic compound per gallon) of material, or

2) reactive organic compound composite partial pressure of 45 millimeters of mercury at 20 degrees Celsius.

b. **When Performing Solvent Cleaning of Spray Application Equipment:** 25 grams of reactive organic compounds per liter (0.21 pounds of reactive organic compound per gallon) of material. In lieu of meeting the reactive organic compound-content limit, a person may use an enclosed cleaning system, or equipment that is proven to the satisfaction of the Control Officer to be equally effective as an enclosed cleaning system at controlling emissions. "Equal effectiveness" of an alternative cleaning system shall be determined by the test method referenced in Section I.8 of this rule. If an enclosed cleaning system is used, it shall totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures, and it shall be used according to the manufacturer's recommendations and be closed when not in use.

2. **Cleaning Devices and Methods.** Except for solvent cleaning of spray application equipment, any person performing solvent cleaning with a solvent containing more than 25 grams of reactive organic compounds per liter of material shall use one or more of the following cleaning devices or methods:

a. Wipe cleaning where solvent is dispensed to wipe cleaning materials from containers that are kept closed to prevent evaporation, except while dispensing solvent or replenishing the solvent supply, and where wipes are stored in closed containers to prevent evaporation when not in use;

b. Application of solvent from hand-held spray bottles, squirt bottles, or other closed containers with a capacity of one liter or less; or

c. Non-atomized solvent flow, dip, or flush cleaning method where pooling on surfaces being cleaned is prevented or drained, and all solvent runoff is collected in a manner that enables solvent recovery or disposal. The collection system shall be kept closed to prevent evaporation except while collecting solvent runoff or emptying the collection system.

K. Compliance Schedule

Any person who owns, operates, or uses any application equipment to surface coat any aerospace vehicles or components shall meet the following compliance schedule:

1. By July 21, 2012, comply with Section F, Requirements - General Operating.

2. By December 21, 2012, comply with the recordkeeping provisions in the following Sections:

   a. H.1.d - mixing data,

   b. H.1.e - reactive organic compound content data,

   c. H.2 - purchase records,

   d. H.3 - waste disposal records, and

   e. H.4 - daily records for noncompliant materials.

3. By June 21, 2013, comply with the Section J and Section M requirements.

4. By June 21, 2012, comply with all other provisions of this rule.

L. Reporting Requirements

Submittal of an annual report to the District is required if:

- A person holds a permit for equipment subject to the requirements of this rule, or
- A person is subject to the requirements of this rule and applies non-complying coatings.

The annual report shall be due March 1 and it shall contain the following information for the previous calendar year:

1. monthly totals (gallons) of compliant and noncompliant material used based on the records required by Section H.4,

2. annual totals (gallons) based on each of the coating's, solvent's, and stripper's monthly data,

3. if claiming the Rule 337.B.1 exemption, annual totals (gallons) of non-complying coatings for each separate formulation and all formulations, per Section H.7.b, and

4. if permitted, name and address of the company or agency, and the Permit to Operate number that the surface coating equipment is subject to.

M. Requirements - Solvent Cleaning Machine

Any person who owns, operates, or uses any solvent cleaning machine shall comply with the applicable provisions of Rule 321, Solvent Cleaning Machines and Solvent Cleaning.

RULE 339. MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS. (Adopted 11/5/1991, Revised 5/17/1994, 12/15/1994, 4/17/1997, and 6/19/2008)

A. Applicability and Purpose

This rule is applicable to any person who supplies, sells, offers for sale, manufactures, or distributes any automotive coating or associated solvent for use within the District, as well as any person who uses, applies, or solicits the use or application of any automotive coating or associated solvent within the District.

The purpose of this rule is to limit volatile organic compound (VOC) emissions from coatings and solvents associated with the coating of motor vehicles, mobile equipment, and associated parts and components.

B. Exemptions

Except as otherwise specified below, the requirements of this rule shall not apply to:

1. Any automotive coating or associated solvent that is offered for sale, sold, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.

2. Any aerosol coating product.

3 Any automotive coating that is sold, supplied, or offered for sale in 0.5 fluid ounce or smaller containers intended to be used by the general public to repair tiny surface imperfections.

4. Any coating applied to motor vehicles or mobile equipment, or their associated parts and components, during manufacture on an assembly line.

5. With prior written approval of the Control Officer, the provisions of D.9 shall not apply where coatings are applied to a vehicle(s) which, due to shape or size, cannot reasonably be contained in a spray booth. Any person seeking an exemption from D.9 shall comply with the following:

    a. Submit a written request to the Control Officer identifying the vehicle(s) to be coated, the size of the spray booth, the physical size of the vehicle(s) (i.e. length, width, and height), number of vehicle(s) to be coated, time required to paint vehicle(s), estimated volume of coating used, the date in which the vehicle or mobile equipment is to be coated, and the VOC content of each coating used; and

    b. The request shall be submitted in hardcopy writing to the District Santa Barbara Office, marked "ATTENTION – REQUEST FOR CONTROL OFFICER EXEMPTION DETERMINATION." The Control Officer will provide a written determination to the requester within five (5) business days upon receipt of the exemption request. If the Control Officer does not act (i.e., grant or deny) on any properly submitted request within five business days of receiving the request, the exemption is automatically granted.

    c. Notwithstanding B.5.b, no person shall be exempt from D.9 unless a written approval of exemption is obtained from the Control Officer. The Control Officer may grant written approval for a specified time period, not to exceed one year.

6. The provisions of Section D.9 shall not apply to the following:

    a. a motor vehicle engine compartment and mating assemblies of engine and suspension components where such components are replaced in the engine compartment.

    b. the application of any undercoat which contains no lead or chromium compounds and is limited to one major panel per vehicle, or equivalent area, not to exceed an aggregate of 16 square feet per vehicle.

7. The provisions of Sections D.2 through D.9 and Sections E and F shall not apply to the following:

   a. painting of no more than one vehicle per year, by the registered owner of the vehicle being painted, provided that the surface coating being used does not contain lead or chromium compounds;

   b. the application of touch-up coatings;

   c. lettering and striping applied using hand application methods.

8. The provisions of Section D.8.a shall not apply to any person using a solvent to remove dust, grease, wax and other contaminants from a surface prior to sanding, provided that person meets the following requirements :

   a. the solvent is applied exclusively by use of non-aerosol, hand-held spray bottles.

   b. the total volume of the solvent does not exceed 20 gallons per year per automotive refinishing facility.

   c. the VOC content of the solvent does not exceed 780 grams per liter.

   d. records are maintained on a monthly basis of the running annual total of the solvent used to demonstrate compliance with this exemption; and

   e. solvent records are kept in compliance with the requirements in Sections F.3, F.4, and F.7 of this rule.

C. Definitions:

See Rule 102 for definitions not limited to this rule. For the purpose of this rule, the following definitions apply.

1. **"Adhesion Promoter"** means a coating, which is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent coatings, and on which, a subsequent coating is applied.

2. **"Aerosol Coating Product"** means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications.

3. **"Assembly Line"** means an arrangement of industrial equipment and workers in which the product passes from one specialized operation to another until complete, by either automatic or manual means.

4. **"Associated Parts and Components"** means structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of motor vehicles or mobile equipment that are designed to be a part of motor vehicles or mobile equipment but which are not attached to motor vehicles or mobile equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element. "Associated parts and components" does not include circuit boards.

5. **"Automotive Coating"** means any coating or coating component used or recommended for use in motor vehicle or mobile equipment refinishing, service, maintenance, repair, restoration, or modification, except metal plating activities. Any reference to automotive refinishing or

automotive coating made by a person on the container or in product literature constitutes a recommendation for use in motor vehicle or mobile equipment refinishing.

6. **"Automotive Coating Component"** means any portion of a coating, including, but not limited to, a reducer or thinner, toner, hardener, and additive, which is recommended by any person to distributors or end-users for use in an automotive coating, or which is supplied for or used in an automotive coating. The raw materials used to produce the components are not considered automotive coating components.

7. **"Automotive Refinishing Facility"** means any shop, business, location, or parcel of land where motor vehicles or mobile equipment or their associated parts and components are coated, including autobody collision repair shops. "Automotive Refinishing Facility" does not include the original equipment manufacturing plant where the motor vehicle or mobile equipment is completely assembled.

8. **"CARB"** means the California Air Resources Board.

9. **"Cleaning Operations"** means the removal of loosely held uncured adhesives, inks, coatings, or contaminants, including, but not limited to, dirt, soil, or grease, from motor vehicles, mobile equipment, associated parts and components, substrates, parts, products, tools, machinery, equipment, or general work areas.

10. **"Clear Coating"** means any coating that contains no pigments and is labeled and formulated for application over a color coating or clear coating.

11. **"Coating"** means a material which is applied to a surface and forms a film in order to beautify, preserve, repair, or protect such a surface.

12. **"Color Coating"** means any pigmented coating, excluding adhesion promoters, primers, and multi-color coatings, that requires a subsequent clear coating and which is applied over a primer, adhesion promoter, or color coating. Color coatings include metallic/iridescent color coatings.

13. **"Electrostatic Spray Application"** means any method of spray application of coatings where an electrostatic attraction is created between the part to be coated and the paint particles.

14. **"Emission Control System"** means any combination of capture systems and control devices used to reduce VOC emissions from automotive coating operations.

15. **"Exempt Compounds"** means, for the purposes of this rule, the compounds listed in Sections C.42.a and C.42.b.

16. **"Graphic Arts Operation"** means the application of logos, letters, numbers, or graphics to a painted surface by brush, roller, or airbrush.

17. "**Hand Application Methods**" means the application of coatings by one of the following methods: air brush, paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

18. **"High-Volume, Low-Pressure (HVLP)"** means spray equipment permanently labeled as such and which is designed and operated between 0.1 and 10 pounds per square inch, gauge, (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

19. "**Lacquer**" means a clear or pigmented coating formulated with nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction and to provide a quick-drying, solid protective film.

20. **"Metallic/Iridescent Color Coating"** means any coating that contains more than 0.042 pounds per gallon (5 grams per liter) of metal or iridescent particles as applied, where such particles are visible in the dried film.

21. **"Mobile Equipment"** means any device that may be drawn and/or driven on rails or a roadway including, but not limited to, trains, railcars, truck trailers, mobile cranes, bulldozers, street cleaners, and implements of husbandry or agriculture.

22. **"Motor Vehicle"** means any self-propelled vehicle, including, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks, and armored personnel carriers.

23. **"Multi-Color Coating"** means any coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, and hides surface defects on areas of heavy use, and which is applied over a primer or adhesion promoter.

24. **"Person"** shall have the same meaning as defined in Health and Safety Code Section 39047.

25. **"Pretreatment Coating"** means any coating that contains a minimum of one-half (0.5) percent acid by weight and not more than 16 percent solids by weight necessary to provide surface etching and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.

26. **"Primer"** means any coating, which is labeled and formulated for application to a substrate to provide 1) a bond between the substrate and subsequent coats, 2) corrosion resistance, 3) a smooth substrate surface, or 4) resistance to penetration of subsequent coats, and on which a subsequent coating is applied. Primers may be pigmented.

27. **"Primer Sealer"** means any coating which is labeled and formulated for application prior to the application of a color coating for the purpose of color uniformity, or to promote the ability of the underlying coating to resist penetration by the color coating.

28. **"Refinishing"** means any coating of vehicles, their exterior parts or components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original coating applied at an Original Equipment Manufacturer (OEM) plant coating assembly line.

29. **"Single-Stage Coating"** means any pigmented coating, excluding primers and multi-color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent coatings.

30. **"Solvent"** means a VOC-containing fluid used to perform cleaning operations.

31. **"Spot/Panel Repair"** means repair of an area on a motor vehicle, piece of mobile equipment, or associated parts or components of less than 1 square foot (929 square centimeters).

32. "**Spray Booth**" means a power ventilated structure of varying dimensions and construction provided to enclose or accommodate a spraying operation and to confine and limit the escape of spray vapor and residue and to exhaust it safely.

33. **"Temporary Protective Coating"** means any coating which is labeled and formulated for the purpose of temporarily protecting areas from overspray or mechanical damage.

34. "**Thinner**" means a volatile liquid used to lower the solid concentration or the viscosity of a coating.

35. "**Touch-up Coating**" means a coating applied by brush, air brush, detail HVLP spray equipment or hand-held, non-refillable aerosol cans to repair minor surface damage and imperfections.

36. **"Transfer Efficiency"** means the amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage.

37. **"Truck Bed Liner Coating"** means any coating, excluding clear, color, multi-color, and single stage coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.

38. **"Underbody Coating"** means any coating labeled and formulated for application to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the motor vehicle.

39. "**Undercoat**" means any pretreatment wash primer, primer, or primer sealer.

40. **"Uniform Finish Coating"** means any coating labeled and formulated for application to the area around a spot repair for the purpose of blending a repaired area's color or clear coat to match the appearance of an adjacent area's existing coating.

41. **"U.S. EPA"** means the United States Environmental Protection Agency.

42. **"Volatile Organic Compound (VOC)"** means any volatile compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:

    a. methane;
    methylene chloride (dichloromethane);
    1,1,1-trichloroethane (methyl chloroform);
    trichlorofluoromethane (CFC-11);
    dichlorodifluoromethane (CFC-12);
    1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
    1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
    chloropentafluoroethane (CFC-115);
    chlorodifluoromethane (HCFC-22);
    1,1,1-trifluoro-2,2-dichloroethane (HCFC-123);
    2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
    1,1-dichloro-1-fluoroethane (HCFC-141b);
    1-chloro-1,1-difluoroethane (HCFC-142b);
    trifluoromethane (HFC-23);
    pentafluoroethane (HFC-125);
    1,1,2,2-tetrafluoroethane (HFC-134);
    1,1,1,2-tetrafluoroethane (HFC-134a);
    1,1,1-trifluoroethane (HFC-143a);
    1,1-difluoroethane (HFC-152a);
    cyclic, branched, or linear completely methylated siloxanes;
    the following classes of perfluorocarbons:
        (A) cyclic, branched, or linear, completely fluorinated alkanes;
        (B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
        (C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
        (D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine; and

    b. the following low-reactive organic compounds which have been exempted by the U.S. EPA:

acetone;
ethane;
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene);
perchloroethylene;
methyl acetate; and
tertiary butyl acetate (tBAc).

43. "**VOC Content"**

a. **"VOC Regulatory for Coatings"** means VOC in grams per liter of coating, excluding water and exempt compounds, and shall be calculated by the following equation:

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

b. **"VOC Actual for Coatings"** means VOC in grams per liter of material shall be calculated using the following equation:

$$\text{VOC Actual Content} = \frac{(Wv - Ww - Wec)}{(Vm)}$$

c. **"VOC Content for Solvents"** means VOC in grams per liter of material shall be calculated by the following equation:

$$\text{VOC Content} = \frac{Wv - Ww - Wec}{Vm}$$

Where:

VOC content = amount of volatile organic compounds in grams/liter

Wv = weight of volatiles in grams

Ww = weight of water in grams

Wec = weight of exempt compounds in grams

Vm = volume of material (coating or solvent, as applicable) in liters

Vw = volume of water in liters

Vec = volume of exempt compounds in liters

D. Requirements

1. **Coating Limits.** No person shall apply to any motor vehicle, mobile equipment, or associated parts and components, any coating with a VOC regulatory content, as calculated pursuant to Section C.43.a, in excess of the following limits, except as provided in Section D.3:

Coating Category	VOC Regulatory Limit, as applied, in grams per liter (pounds per gallon*)	
	Effective January 1, 2009	**Effective January 1, 2010**
Adhesion Promoter		540 (4.5)
Clear Coating	250 (2.1)	
Color Coating	420 (3.5)	
Multi-Color Coating	680 (5.7)	
Pretreatment Coating	660 (5.5)	
Primer	250 (2.1)	
Primer Sealer		250 (2.1)
Single-Stage Coating		340 (2.8)
Temporary Protective Coating	60 (0.5)	
Truck Bed Liner Coating	310 (2.6)	
Underbody Coating	430 (3.6)	
Uniform Finish Coating	540 (4.5)	
Any other coating type	250 (2.1)	

**English units are provided for information only.*

2. **Most Restrictive VOC Limit.** If anywhere on the container of any automotive coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Section D.1, then the lowest VOC content limit shall apply.

3. **Alternative Compliance.** Instead of complying with the VOC content limits specified in Section D.1, a person may use an emission control system that has been approved, in writing, by the Executive Officer or Air Pollution Control Officer of the District and which achieves an overall control efficiency of at least 85 percent as determined pursuant to Sections E.5 and E.6. Any approved system emission control must be maintained and used at all times in proper working condition.

4. **Prohibition of Possession.** No person shall possess at any automotive refinishing facility, any automotive coating that is not in compliance with Section D.1 or D.3, as applicable. Effective January 1, 2010, no person shall possess at any automotive refinishing facility, any solvent with a VOC content greater than 25 grams per liter.

5. **Prohibition of Sale or Manufacture.** No person shall manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute within the District any coating with a VOC content in excess of the limits specified in Section D.1.

Notwithstanding the provisions of this Section, a person may manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute a coating with a VOC content in excess of the limits specified in Section D.1 under the following circumstances and provided all of the requirements of Section F.6 are also met:

a. The coating is for use exclusively within an emission control system as allowed in Section D.3, or

b. The coating is for use outside the District.

6. **Prohibition of Specification.** No person shall solicit or require the use of, or specify the application or use of any coating or solvent on a motor vehicle or mobile equipment, or associated parts and components, if such use or application results in a violation of this rule. This prohibition shall apply to all written or oral contracts, including, but not limited to, job orders, under the terms of which any coating or solvent that is subject to the provisions of this rule is to be used or applied. This prohibition shall not apply to coatings that meet the criteria specified in Section D.5.

7. **Coating Application Methods.** No person shall apply any coating to any motor vehicle, mobile equipment, or associated parts and components unless one of the following application methods is used:

a. Brush, dip, or roller.

b. Electrostatic spray.

c. High-Volume Low-Pressure (HVLP) spray equipment.

d. Use of a spray gun: If a spray gun is used, the end user must demonstrate that the gun meets the HVLP definition in Section C.18 in design and use. A satisfactory demonstration must be based on the manufacturer's published technical material on the design of the gun and by a demonstration of the operation of the gun using an air pressure tip gauge from the manufacturer of the gun.

e. Any alternative method that achieves a transfer efficiency quivalent to, or higher than, the application methods listed in Sections D.7.a, D.7.b, or D.7.c as determined per Section E.9. Written approval from the Executive Officer or Air Pollution Control Officer of the District shall be obtained for each alternative method prior to use. Section D.7 does not apply to underbody coatings, graphic arts operations, truck bed liner coatings, or any coating use of less than one (1) fluid ounce (29.6 milliliters).

8. **Solvent Limits and Evaporative Loss Minimization**

a. Effective January 1, 2010, each solvent present at any automotive refinishing facility shall not exceed a VOC content of 25 grams per liter as calculated pursuant to Section C.43.c.

b. Solvent-laden materials shall be stored in closed containers.

c. All automotive coating components, automotive coatings, and solvents shall be stored in closed vapor-tight containers.

d. No person shall clean spray equipment unless a closed system is used. However, equivalent control equipment can be used if the Executive Officer or Air Pollution Control Officer of the District approves it in writing prior to use.

e. All waste automotive coating components, automotive coatings, and solvents shall be stored in closed vapor-tight containers, except while adding to or removing them from the containers.

9. **Spray Booth Requirement.** All surface coatings which are subject to this rule shall be applied in a properly maintained and operating spray booth that has a District issued Permit to Operate or an Authority to Construct that allows operation and in full compliance with all conditions of any such permit.

E. Test Methods

The following test methods are incorporated by reference herein, and shall be used to test coatings and solvents subject to the provisions of this rule. A source is in violation of this rule if any measurement by any of the listed applicable test methods exceeds the standards of this rule.

1. **Methyl Acetate, Acetone, t-Butyl Acetate, and PCBTF Content.** The quantity of methyl acetate, acetone, t-butyl acetate, and parachlorobenzotrifluoride (as specified in Sections C.15, C.42, and C.43) shall be determined by using ASTM Standard D 6133-02: "Standard Test Method for Acetone, *p*-Chlorobenzotrifluoride, Methyl Acetate or *t*-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph," (February 2003), ASTM International.

2. **Acid Content.** Measurement of acid content (as specified in Section C.25) shall be determined by using ASTM Standard D 1613-03 "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products," (October 2003), ASTM International.

3. **Alternative Test Methods.** The use of other test methods which are determined to be equivalent or better and approved, in writing, by the Executive Officer or Air Pollution Control Officer of the District, CARB, and U.S. EPA may be used in place of the test methods specified in this rule.

4. **VOC Content of Coatings or Solvents.** VOC content (as specified in Sections C.43, D.1, and D.8.a) shall be determined by U.S. EPA Method 24 as set forth in Appendix A of Title 40 of the Code of Federal Regulations (40 CFR) Part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings".

5. **Control Efficiency.** When either U.S. EPA Method 25, 25A, or 25B is used to determine VOC emissions, control device equivalency (as specified in Section D.3) shall be determined as specified in U.S. EPA's "Guidelines for Determining Capture Efficiency," (January 9, 1995) and 40 CFR 51, Appendix M, Methods 204 –204f as applicable.

6. **Determination of Alternative Compliance.** Alternative compliance (as specified in Section D.3) shall be determined by U.S. EPA Method 25, 25A, or 25B, Title 40 Code of Federal Regulations, Part 60, Appendix A as applicable. A source is in violation if the measured VOC emissions, as measured by any of the test methods, exceed the standards specified in Section D.3.

7. **Metallic Content.** The metallic content of a coating (as specified in Section C.20) shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-ray" (July 1996).

8. **Exempt Compound Content.** Exempt compound content, other than as determined pursuant to Section E.1, (as specified in Sections C.15, C.42 and C.43) shall be determined by using CARB Method 432, "Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings" (September 12, 1998); CARB Method 422, "Determination of Volatile Organic Compounds in Emissions from Stationary Sources" (January 22, 1987); or, South Coast Air

Quality Management District (SCAQMD) Method 303-91, "Determination of Exempt Compounds" (February 1993).

9. **Transfer Efficiency.** Spray equipment transfer efficiency (as specified in Sections C.36 and D.7.e) shall be determined by using South Coast Air Quality Management District "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" (May 24, 1989).

10. **HVLP Equivalency.** Spray equipment HVLP equivalency (as specified in Section D.7.d) shall be determined by using South Coast Air Quality Management District "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns" (September 26, 2002).

F. Recordkeeping

1. **Compliance Statement Requirement**

a. For each individual automotive coating or automotive coating component, the manufacturer and repackager shall include the following information on product data sheets, or an equivalent medium:

i. The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;

ii. The weight percentage of volatiles, water, and exempt compounds;

iii. The volume percentage of water and exempt compounds; and,

iv. The density of the material (in grams per liter).

b. For each individual ready to spray mixture (based on the manufacturer's and repackager's stated mix ratio), the manufacturer and repackager shall include the following information on product data sheets, or an equivalent medium:

i. The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;

ii. The weight percentage of volatiles, water, and exempt compounds;

iii. The volume percentage of water and exempt compounds; and,

iv. The density of the material (in grams per liter).

c. The manufacturer and repackager of solvents subject to this rule shall include the VOC content as supplied, calculated pursuant to Section C.43.c, expressed in grams per liter, on product data sheets, or an equivalent medium.

2. **Labeling Requirements**

a. The manufacturer and repackager of automotive coatings or automotive coating components shall include on all containers the applicable use category(ies), and the VOC actual for coatings and VOC regulatory for coatings, as supplied, expressed in grams per liter.

b. The manufacturer and repackager of solvents subject to this rule shall include on all containers the VOC content for solvents, as supplied, expressed in grams per liter.

3. **Maintenance of Records.** Records required by this rule shall be retained for a minimum of three years and made available for inspection by District personnel upon request.

4. **Recordkeeping Requirements.** Any person who uses coatings or solvents subject to this rule shall maintain and have available at all times, on site, the following:

    a. A current list of all coatings and solvents used that are subject to this rule. This list shall include the following information for each coating and solvent:

        i. material name and manufacturer;
        ii. application method;
        iii. coating type (as listed in Section D.1) and mix ratio specific to the coating;
        iv. VOC actual for coatings and VOC regulatory for coatings, as applied, or VOC content for solvent; and,
        v. whether the material is a coating or solvent.

    b. Current manufacturer specification sheets, material safety data sheets, technical data sheets, or air quality data sheets, which list the VOC actual for coatings and VOC regulatory for coatings of each ready-to-spray coating (based on the manufacturer's stated mix ratio) and automotive coating components, and VOC content of each solvent.

    c. Purchase records identifying the coating type (as listed in Section D.1), name, and volume of coatings and solvents.

5. **Recordkeeping Requirements for Emission Control Systems.** Any person using an emission control system shall maintain daily records of key system operating parameters which will demonstrate continuous operation and compliance of the emission control system during periods of VOC emission producing activities. "Key system operating parameters" are those parameters necessary to ensure or document compliance with Section D.3, including, but not limited to, temperatures, pressure drops, and air flow rates.

6. **Recordkeeping Requirements for Prohibition of Sale.** Any person claiming an exception specified in Section D.5 shall keep a detailed log of each automotive coating component and automotive coating manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed showing:

    a. The quantity manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed, including size and number of containers;

    b. The VOC regulatory for coatings;

    c. The VOC actual for coatings;

    d. To whom they were supplied, sold, offered for sale, or distributed, or for whom they were manufactured, blended, or repackaged for sale including the name, address, phone number, retail tax license number, and valid district permit number; and,

    e. The specific exception being utilized under Section D.5.

7. **Annual Reports.** Any person subject to this rule shall keep and maintain a record of the total automotive refinishing facility VOC emissions used on a monthly basis. These records shall be summarized for the previous calendar year and submitted to the District by March 1.

G. Rule Effective Date

Unless otherwise specified, the provisions of this rule as adopted on June 19, 2008 become effective January 1, 2009.

3-10-98

3/10/98

RULE 342. CONTROL OF OXIDES OF NITROGEN (NO_x) FROM BOILERS, STEAM GENERATORS AND PROCESS HEATERS. (Adopted 3/10/1992, revised 04/17/1997)

A. Applicability

This rule applies to boilers, steam generators, and process heaters with rated heat inputs greater than or equal to 5 million Btu per hour used in all industrial, institutional, and commercial operations.

B. Exemptions

1. This rule shall not apply to:

   a. boilers used by public electric utilities to generate electricity.

   b. process heaters, kilns, and furnaces where the products of combustion come into direct contact with the material to be heated.

   c. waste heat recovery boilers that are used to recover heat from the exhaust of combustion turbines or reciprocating internal combustion engines.

   d. equipment that does not require a permit under the provisions of Rule 202.

2. Section D.1.b shall not apply to boilers while forced to burn nongaseous fuel during times of natural gas curtailment. This exemption shall not exceed 168 cumulative hours of operation per calendar year excluding equipment testing time not exceeding 24 hours per calendar year.

C. Definitions

1. **Annual Heat Input** means the total heat input of fuels burned by a unit in a calendar year, as determined from the higher heating value and cumulative annual usage of each fuel.

2. **Boiler or Steam Generator** means any external combustion equipment fired with any fuel used to produce hot water or steam.

3. **Higher Heating Value (HHV)** means the total heat liberated per mass of fuel burned (Btu per pound), when fuel and dry air at standard conditions undergo complete combustion and all resultant products are brought to standard conditions.

4. **Process Heater** means any external combustion equipment fired with liquid and/or gaseous fuel and which transfers heat from combustion gases to water or process streams.

5. **Rated Heat Input** (million Btu per hour) means the heat input capacity specified on the nameplate of the combustion unit. If the combustion unit has been physically modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the modified maximum heat input shall be considered as the rated heat input. The modified maximum heat input capacity shall be demonstrated to the District by a fuel meter while operating the unit at maximum capacity.

6. **Unit** means any boiler, steam generator or process heater as defined in 2 and 4 above.

D. Requirements - Emission Standards

1. For units with rated heat inputs of greater than or equal to 5 million Btu per hour and permitted annual heat input of greater than or equal to 9 billion Btu, NO_x emissions shall not exceed the following levels:

   a. 30 parts per million by volume (ppmv) or 0.036 pound per million Btu of heat input when operated on gas.

   b. 40 parts per million by volume or 0.052 pound per million Btu of heat input when operated on nongaseous fuel.

   c. the heat-input weighted average of the limits specified in a. and b., above, when operated on combinations of gas and nongaseous fuel.

   Emissions from units subject to this section shall not exceed a carbon monoxide concentration of 400 parts per million by volume.

2. **Units** with rated heat inputs of greater than or equal to 5 million Btu per hour and permitted annual heat inputs of less than 9 billion Btu's shall be:

   a. operated in a manner that maintains stack-gas oxygen concentrations at less than 3.00 percent by volume on a dry basis; or

   b. operated with a stack-gas oxygen trim system set at 3.00 ±0.15 percent oxygen by volume on a dry basis; or

   c. tuned at least once every twelve months in accordance with the procedure described in Attachment 1; or

   d. operated in compliance with the applicable emission levels specified in Subsection D.1.

E. Requirements - Equipment

1. Owners or operators of units which simultaneously fire combinations of different fuels, and are subject to the requirements of section D.1, shall install totalizing mass or volumetric flow rate meters in each fuel line. Gas flow rate meters shall be installed in conjunction with temperature and pressure probes.

2. Owners or operators of units which employ flue-gas NO_x reduction technology, and are subject to the requirements of section D.1, shall install meters as applicable to allow instantaneous monitoring of the operational characteristics of the NO_x reduction equipment.

3. The use of anhydrous ammonia to meet the requirements of this rule is prohibited.

F. Requirements - Compliance Determination

1. All emission determinations shall be made in the as-found operating condition, at the maximum attainable firing rate allowed by the District permit. No determination of compliance with the requirements of section D.1 shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer.

2. All ppmv emission limits specified in Subsection D.1 are referenced at dry stack-gas conditions and 3.00 percent by volume stack-gas oxygen. Emission concentrations shall be corrected to 3.00 percent oxygen as follows:

$$[\text{ppm } NO_x]_{\text{corrected}} = \frac{20.95\% - 3.00\%}{20.95\% - [\%\ O_2]_{\text{measured}}} \text{ X } [\text{ppm } NO_x]_{\text{measured}}$$

$$[\text{ppm CO}]_{\text{corrected}} = \frac{20.95\% - 3.00\%}{20.95\% - [O_2]_{\text{measured}}} \text{ X } [\text{ppm CO}]_{\text{measured}}$$

3. All pounds-per-million-Btu NO_x emission rates shall be calculated as pounds of nitrogen dioxide per million Btu of heat input.

G. Requirements - Testing

1. Except units complying with Subsection D.2.c, all units covered under Subsections D.1 and D.2 shall be tested for compliance not less than once every 24 months.

2. The owner or operator of any unit which is found not to be in compliance with Section D as a result of a source test shall comply with the following:

   a. A repeat source test shall be performed to demonstrate compliance with Section D within the time period specified by the District.

   b. Annual source tests shall be conducted on any noncompliant unit until two consecutive tests demonstrate compliance with Section D. When the unit is demonstrated to be in compliance with Section D by two consecutive source tests, the unit shall comply with the provisions of Section G.1.

H. Test Methods

Compliance with the NO_x emission requirements and the stack-gas carbon monoxide and oxygen requirements of section D shall be determined using the following test methods.

1. Oxides of Nitrogen - EPA Method 7E.

2. Carbon Monoxide - EPA Method 10.

3. Stack Gas Oxygen - EPA Method 3 or 3A.

4. NO_x Emission Rate (Heat Input Basis) - EPA Methods 2 and 4 if applicable, or 19.

5. If certification of the HHV is not provided by the third party fuel supplier, it shall be determined by one of the following test methods: (1) ASTM D 2015-85 for solid fuels; (2) ASTM D 240-87 or ASTM D 2382-88 for liquid hydrocarbon fuels; or (3) ASTM D 1826-88, or ASTM D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels.

For numbers 1, 2, 3 and 4 above there shall be a minimum of three 40 minute tests with a strip chart recorder. For instrument methods, the maximum data reduction averaging interval is ten minutes, i.e. four or more intervals per test run. Compliance is determined via the arithmetic mean of the three runs.

I. Recordkeeping

1. The owners or operators of units subject to Section D of this rule shall monitor and record for each unit the Higher Heating Value and cumulative annual usage of each fuel.

2. The owners and operators of units operating under the exemption of Section B.2 shall monitor and record for each unit the cumulative annual hours of operation on each nongaseous fuel. This data shall be updated monthly.

3. The owners and operators of units operated under the provisions of Section D.2.c shall maintain documentation verifying the required tune-ups.

4. The records required above shall be kept for three calendar years and shall be made available to the District on request.

J. Reporting Requirements

The owners and operators of units subject to Sections D1, D.2.a, D.2.b, and D.2.d shall submit compliance test reports on each unit for each fuel burned. Test reports shall include operational characteristics of all flue-gas NO_x reduction equipment or technology.

K. Compliance Schedule

The owner or operator of units subject to this rule shall:

1. Apply for a District Permit to Operate by June 8, 1992 in accordance with District Rule 202.

2. By March 10, 1994 submit a plan containing the following:

   a. A list of all units with their rated heat inputs and permitted annual heat inputs.

   b. For each unit listed, the selected method for meeting the applicable requirements.

3 By March 10, 1994 apply for an Authority to Construct for control equipment required to meet the standards of this Rule.

4. By March 10, 1996 demonstrate final compliance with this Rule.

ATTACHMENT 1

Equipment Tuning Procedure[1]

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurors, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant regulations and requirements.

1. Operate the unit at the firing rate most typical of normal operation. If the unit experiences significant load variations during normal operation, operate it at its average firing rate.

2. At this firing rate, record stack gas temperature, oxygen concentration, and CO concentration (for gaseous fuels) or smoke-spot number[2] (for liquid fuels), and observe flame conditions after unit operation stabilizes at the firing rate selected. If the excess oxygen in the stack is at the lower end of the range of typical minimum values[3], and if the CO emissions are low and there is no smoke, the unit is probably operating at near optimum efficiency - at this particular firing rate. However, complete the remaining portion of this procedure to determine whether still lower oxygen levels are practical.

3. Increase combustion air flow to the furnace until stack gas oxygen levels increase by one to two percent over the level measured in Step 2. As in Step 2, record the stack gas temperature, CO concentration (for gaseous fuels) or smoke-spot number (for liquid fuels), and observe flame conditions for these higher oxygen levels after boiler operation stabilizes.

4. Decrease combustion air flow until the stack gas oxygen concentration is at the level measured in Step 2. From this Level gradually reduce the combustion air flow, in small increments. After each increment, record the stack gas temperature, oxygen concentration, CO concentration (for gaseous fuels) and smoke-spot number (for liquid fuels). Also observe the flame and record any changes in its condition.

5. Continue to reduce combustion air flow stepwise, until one of these limits in reached:

   a. Unacceptable flame conditions - such as flame impingement on furnace walls or burner parts, excessive flame carryover, or flame instability.

   b. Stack gas CO concentrations greater than 400 ppm.

   c. Smoking at the stack.

   d. Equipment-related limitations - such as low windbox/furnace pressure differential, built in air-flow limits, etc.

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1. This tuning procedure is based on a tune-up procedure developed by KVB, Inc. for the EPA.

2. The smoke-spot number can be determined with ASTM Test Method D-2156 or with the Bacharach method. ASTM Test Method D-2156 is included in a tuneup kit that can be purchased from the Bacharach Company.

3. Typical minimum oxygen levels for boilers at high firing rates are:

   1. For natural gas: 0.5% - 3%
   2. For liquid fuels: 2% - 4%

6. Develop an 02/CO curve (for gaseous fuels) or 02/smoke curve (for liquid fuels) similar to those shown in Figures 1 and 2 using the excess oxygen and CO or smoke-spot number data obtained at each combustion air flow setting.

7. From the curves prepared in Step 6, find the stack gas oxygen levels where the CO emissions or smoke-spot number equal the following values:

Fuel	Measurement	Value
Gaseous	CO Emissions	400 ppm
#1 & #2	smoke-spot number	number 1
#4 oil	smoke-spot number	number 2
#5 oil	smoke-spot number	number 3
Other oils	smoke-spot number	number 4

The above conditions are referred to as CO or smoke threshold, or as the minimum excess oxygen level.

Compare this minimum value of excess oxygen to the expected value provided by the combustion unit manufacturer. If the minimum level found is substantially higher than the value provided by the combustion unit manufacturer, burner adjustments can probably be made to improve fuel and air mixing, thereby allowing operation with less air.

8. Add 0.5 to 2.0 percent to the minimum excess oxygen level found in Step 7 and reset burner controls to operate automatically at this higher stack gas oxygen level. This margin above the minimum oxygen level accounts for fuel variations, variations in atmospheric conditions, load changes, and nonrepeatability or play in automatic controls.

9. If the load of the combustion unit varies significantly during normal operation, repeat Steps 1-8 for firing rates that represent the upper and lower limits of the range of the load. Because control adjustments at one firing rate may affect conditions at other firing rates, it may not be possible to establish the optimum excess oxygen level at all firing rates. If this is the case, choose the burner control settings that give best performance over the range of firing rates. If one firing rate predominates, settings should optimize conditions at that rate.

10. Verify that the new settings can accommodate the sudden changes that may occur-in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack. If any of the conditions in Step 5 result, reset the combustion controls to provide a slightly higher level of excess oxygen at the affect firing rates. Next, verify these new settings in a similar fashion. Then make sure that the final control settings are recorded at steady-state operating conditions for future reference.

Figure 1

Oxygen/CO Characteristic Curve

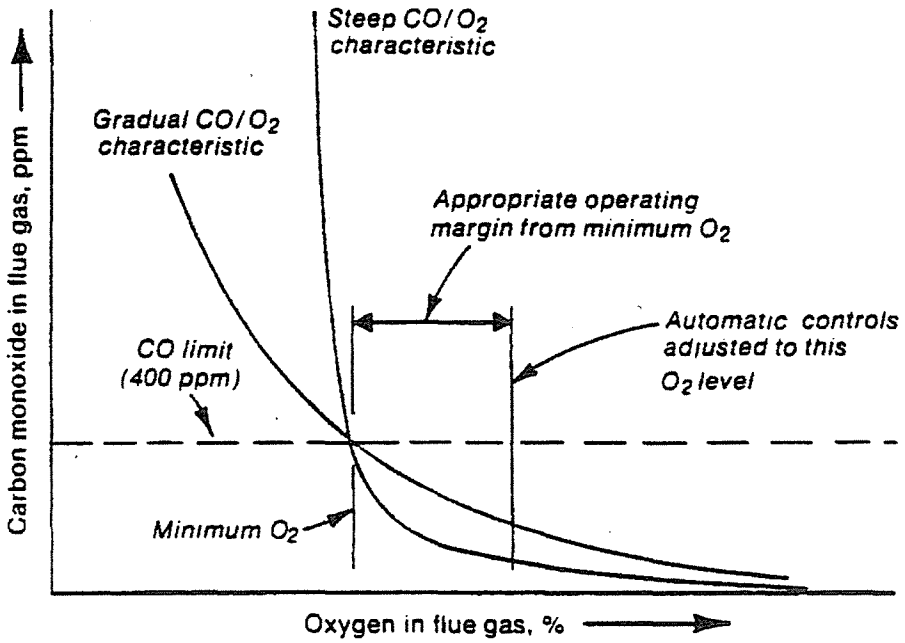
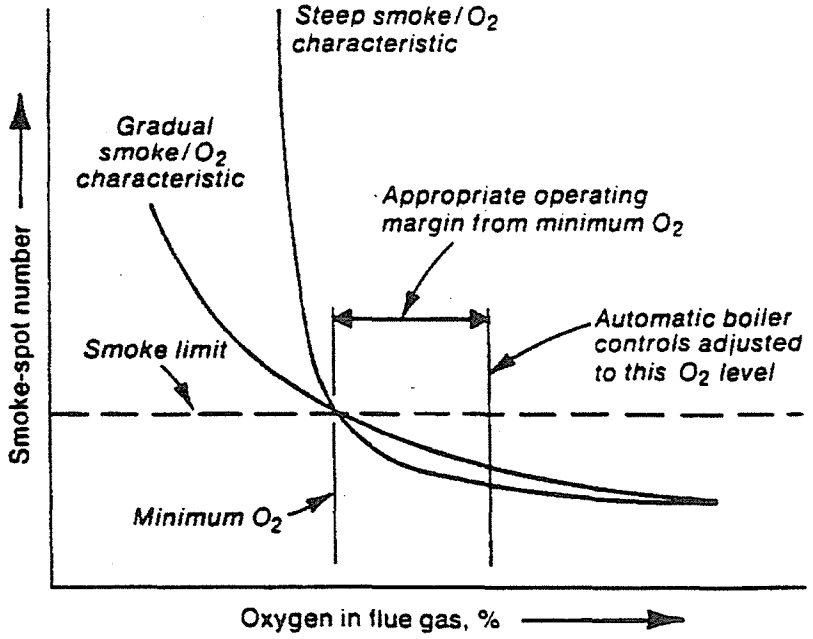


Figure 2

Oxygen/Smoke Characteristic Curve



3/29/94

Rule 343 Petroleum Storage Tank Degassing
(Adopted December 14, 1993)

A. Applicability

This rule applies to degassing of any above-ground stationary tank, reservoir, or other container of more than 40,000 gallons (952 bbl) capacity containing any organic liquid having a vapor pressure of more than 2.6 psia or between 20,000 gallons (476 bbl) and 40,000 gallons (952 bbl) capacity storing any organic liquid having a vapor pressure of 3.9 psia or greater at oilfields and pipeline stations. It also applies to degassing of underground tanks with a capacity greater than 500 gallons storing liquids having a vapor pressure greater than 3.9 psia.

B. Exemptions

1. Sections D, E, and F of this rule do not apply to vessels rated and operated to contain normal working pressure of at least 15 psig without vapor loss to the atmosphere. This exemption shall be documented in accordance with Sections G and H of this rule.

2. This rule shall not apply to fixed roof tanks without vapor recovery.

C. Definitions

See Rule 102 for definitions not restricted to interpretation of this rule.

"Alternate test method" A new method for testing that is not referenced in this rule or which involves major changes to a referenced test method.

"bbl" means barrel, a unit of volume equal to 42 US gallons.

"Degassing" is the process of removing organic gases from a stationary tank, reservoir, or other container.

"Liquid Balancing" is a process in which an organic liquid having a vapor pressure subject to this rule is replaced in a floating roof tank by a liquid with a vapor pressure that is not subject to this rule. This is done by removing as much liquid as possible without landing the roof on its internal supports, pumping in the replacement liquid, allowing mixing, removing as much mixture as possible without landing the roof, and repeating these steps until the vapor pressure of the mixture is not subject to this rule.

"Liquid Displacement" is a process by which the headspace vapors that would be released to atmosphere (i.e. by opening of the fixed roof tank after removal of the liquid contents) are reduced by at least 90% by weight through the use of a displacing liquid to push headspace vapors into control equipment, a make up gas to replace vapors during the emptying stroke, and prevention of the return of the displaced vapors into the tank. The displacing fluid may

be produced water or a lower volatility liquid that absorbs vapors. The make up gas may be field gas or a non-ROC gas. The steps of the procedure shall be specified in the plan required by Section G of this rule.

"Underground storage tank" means any one or combination of tanks, including pipes connected thereto, which is totally beneath the surface of the ground. Underground tanks do not include those specified as exemptions in California Health and Safety Code Section 25281(x).

"Vapor pressure": The vapor pressure measured as described in Section E.5 of this rule.

D. Requirements – Emission Reduction

1. A person shall not allow degassing of a subject container unless the emissions are controlled by one of the following methods used in a manner that results in an emission control device efficiency of at least 90%:

   a. For floating roof tanks, liquid balancing which results in a vapor pressure less 2than that specified in Section A above. For fixed roof tanks, liquid displacement in accordance with Section E.2.b of this rule.

   b. Negative pressure displacement and subsequent incineration in a manner approved by the Control Officer.

   c. A refrigerated condenser which reduces the vapor temperature to minus 100 degrees Fahrenheit or lower, and is capable of handling the displaced vapors.

   d. Any other control method or control equipment that is at least 90% efficient in reducing reactive organic compound (ROC) emissions in a manner approved by the Control Officer.

2. A person shall not allow degassing of a subject underground container unless the ROC emissions are controlled by a refrigerated condenser operated at minus 100 degrees Fahrenheit or a device that is at least 90% efficient.

E. Requirements – Calculations and Compliance Methods

1. A person shall not regenerate any spent carbon from a carbon adsorber unless the regeneration is done using equipment having a valid permit to operate issued by the Control Officer, or a valid permit as a Transportable Treatment Unit from the California Department of Toxic Substances Control.

2. Degassing of any container subject to the provisions of section D.1 of this rule shall be done in the following manner:

a. Air Displacement - The displaced gas shall remain vented to the refrigerated vapor condenser, or equivalent control system, for a length of time determined by the following relationship:

$$t = \frac{2.3\ V}{Q}$$

Where: t = time (hours)
V = the physical volume of the headspace (cubic feet)
Q = flow rate through condenser (ft^3/hr); or

b. Liquid displacement for fixed roof tanks - The tank shall remain vented to the control equipment until 90% of the vapor volume in the tank is displaced into the control equipment by an equal volume of the liquid.

3. Except for emergency cases, the Control Officer shall be notified in writing at least two weeks prior to the start of the emptying operation for the purpose of degassing any above-ground tank subject to this rule.

4. Any condensed liquid shall be handled or disposed of in a manner previously approved in writing by the Control Officer.

5. Vapor pressure of tank contents shall be determined in accordance with the requirements for determining vapor pressure in Rule 325 or 326, whichever rule applies to the tank in question.

6. The test methods used for measuring the emission control device efficiency in section D shall be as follows:

a. Measurement of vapor flow through pipes shall de determined by USEPA Method 2A or 2D.

b. Measurement of ROC vapor concentration shall de determined by USEPA Method 25A or 25B.

7. The test method used for measuring gaseous organic compounds for section F.2 is USEPA Reference Method 21. The analyzer shall be calibrated with methane.

8. Emission control device efficiency shall be calculated by dividing the difference between the control device inlet and exhaust quantities of hydrocarbons, excluding methane, by said inlet quantity. However, if the control device is a thermal oxidizer, the control efficiency may be calculated according to 40 CFR 60.113b.c.1.i.

F. Requirements - Monitoring and Recordkeeping

1. When refrigeration is used, the tank operator shall monitor the condenser temperature and the flow rate into the condenser at 15 minute intervals. The date, time, duration of and corrective response to any interruption of service to the equipment must also be documented.

2. When carbon adsorption is used, a monitor approved by the Control Officer shall be installed and operated at the vent to determine the concentration of hydrocarbon discharged to the atmosphere. The operator shall record at hourly intervals the concentration at the vent and for each occurrence of breakthrough, the date, time, duration, and corrective action taken.

3. The vapor pressure of the contents of all tanks shall be recorded annually.

4. Within one week of any degassing operation, the operator shall record the following: the date of the degassing, the tanks degassed, and the emission reduction method used, and include with these records any documentation generated from monitoring the degassing process.

5. The operator shall maintain the records required by this rule in a readily accessible location for at least 5 years and shall make copies of the records available to the Control Officer upon oral or written request.

G. Requirements - Reporting

Tank operators shall submit to the District for approval a plan consisting of the list of above-ground tanks with the respective volumes and vapor pressures of the liquid stored in the tanks, and the control measure(s) that will be adopted to comply with the requirements of this rule.

H. Compliance Schedule

1. Not later than September 14, 1994 the tank operator shall submit to the District for approval the written plan required by Section G of this rule.

2. All operations shall be in full compliance not later than December 14, 1994.

1/24/95

1/24/95

RULE 344. PETROLEUM SUMPS, PITS AND WELL CELLARS
(Adopted November 10, 1994)

A. Applicability

This rule applies to sumps, pits and well cellars at facilities where petroleum is produced, gathered, separated, processed or stored.

B. Exemptions

1. The provisions of this rule shall not apply to spill containments.

2. The provisions of this rule shall not apply post tertiary sumps and post tertiary pits.

3. Sections D, E, F and G.1 of this Rule shall not apply to:

a. Post-primary sumps or pits meeting any of the following criteria:

1) monthly ROC loss across the sump of less than 75 pounds.

2) producer oil shipment from all operations within Santa Barbara County of less than 150 barrels of oil per day averaged over the year preceding the year for which the exemption is claimed, or

3) shut in sumps or pits that are empty with all inlets plugged, capped, or blind flanged.

b. Pits used less than 30 days per year. Pits are in use when either receiving or storing petroleum product.

4. Post primary sumps or pits with surface area less than 1000 square feet.

5. Sections F and G.1 of this Rule shall not apply to components which are subject to Rule 331 as components is defined in Rule 331.

6. Sections D.3 and D.4 of this rule shall not apply to wells that have been idle for more than six months immediately prior to inspection as indicated by production records.

C. Definitions

See Rule 102 for definitions not restricted to interpretation of this Rule.

"Capture efficiency" means the weight per unit time of ROC entering a capture system and delivered to a control device divided by the weith per unit time of total ROC generated by the source of ROC expressed as a percentage.

"Control" means the reduction, by destruction or removal, of the amount of ROCs in a gas stream prior to discharge to the atmosphere.

"Control efficiency" means the percentage of ROCs entering control equipment that is not present in the exhaust of that control equipment to the atmosphere.

"Defect" means a condition, including but not limited to a tear, hole or lack of required vapor-tightness, that creates a substantial chance of reducing the effectiveness of the control device.

"Facility" means a structure, building, oil lease, or operation, that has one or more permitted pieces of equipment.

"Fixed Roof Cover" means any cover that is not in contact with a liquid surface, but is placed over and completely encloses the liquid surface.

"Floating Cover" means any cover that floats on a liquid surface and prevents evaporation of the liquid under the cover into the atmosphere.

"Overall efficiency" means the emission reduction, expressed as a percentage, that results from the combined effect of capture and control of ROCs that would be emitted to the atmosphere from a container in the same product service without capture and control of emissions.

"Pit" means a basin the purpose of which is collection of emergency or intermittent streams of liquid under normal operations.

"Primary Sump" means any sump that receives a stream of crude oil and produced water directly from one or more oil production wells or field gathering systems.

"Post-primary Sump" means a sump that receives a stream from one or more previous separation processes.

"Post-Tertiary Sump" means a sump that receives a liquid stream that has undergone three or more previous separation processes.

"Sump" means a lined or unlined surface impoundment or depression in the ground that, during normal operations, is used for separating oil, water, and solids in oil production operations.

"Vapor tight" means that a seal or closure prevents the emission of volatile organic compounds which would cause an appropriate analyzer to register more than 10,000 parts per million by volume expressed as methane.

"Well cellar" means a lined or unlined containment into which one or more wellheads are installed. For the purposes of this rule, well cellars are not sumps or pits.

D. Requirements - Emission Reduction

1. Primary sumps shall not be installed or used.

2. Pits and post-primary sumps shall be

a. replaced by a tank that complies with Rule 325, or

b. provided with any of the following:

1) a flexible floating cover or a rigid floating cover equipped with seals.

2) a fixed roof cover equipped with a pressure vacuum relief valve and a closed vent system that collects and delivers vapors to a vapor recovery system, gas gathering system or an air pollution control device with a control efficiency of 95 percent by weight or greater.

3) other equipment having overall efficiency of at least 80 percent by weight. Costs incurred by the APCD for the review, testing and approval of an alternate control device may be recovered pursuant to the cost reimbursement provisions of Rule 210.

3. Well cellars

a. A person shall not open any valve at the wellhead without using a portable container to catch and contain any organic liquid that would otherwise drop on the ground or into the well cellar. Such container shall be kept closed when not in use.

b. Immediately before a well is steamed or after a well head is steam cleaned, the well cellar in which it is located shall be pumped out.

c. Neither of the following conditions shall occur unless the owner or operator discovered the condition and the well cellar is pumped within 7 days of discovery:

1) liquid depth exceeding 50 percent of the depth of the well cellar.

2) oil/petroleum depth exceeding 2 inches.

If a well cellar cannot be accessed by a vacuum truck due to muddy conditions, the well cellar shall be pumped as soon as it becomes accessible.

4. Well heads not in well cellars are subject to Section D.3.a.

E. Requirements - Covers

1. The cover material shall be impermeable to ROCs. Metal cover materials are impermeable for the purposes of this requirement.

2. The cover material shall be free from holes, tears, and openings.

3. Gauging and sampling devices on the cover shall be kept closed and vapor-tight except when such devices are being used, inspected or repaired. Use, inspection and

repair, within the meaning of this requirement, must be attended by the person engaged in the use, inspection or repair.

4. Cover drains which open directly into the liquid contents of any sump or pit shall employ a slotted membrane fabric cover, or its equivalent, over at least 90 percent of the open area.

5. The perimeter of all fixed covers shall form a vapor-tight seal with the foundation to which it is attached.

6. All rigid floating covers shall be installed and maintained such that the gap between the sump or pit wall and the seal does not exceed 1 inch. Gap dimensions are perpendicular to the wall of the sump or pit.

7. All pressure vacuum relief valves shall be set to within 10 percent of the maximum design working pressure of the cover.

8. A flexible floating cover shall completely cover the sump.

F. Requirements - Operator Inspection and Maintenance

1. The operator of any air pollution reduction control devices required in this rule shall inspect them for defects every other calendar quarter.

2. Defects detected through either operator inspection or District inspection shall be repaired or rectified within seven calendar days of detection. The operator shall reinspect and confirm compliance of the repaired or replaced component within 15 calendar days after the repair or replacement.

G. Requirements - Recordkeeping

1. The following information relating to inspection of sumps and pits shall be recorded for each inspection:

   a. the inspection date,

   b. the nature of the inspection or test, with standardized methods specified,

   c. the name of the person and company performing the test or inspection,

   d. the findings, and

   e. for each defect,

      1) the type of defect and equipment which it affects,

      2) the corrective action(s) taken,

3) the date and method by which compliance was confirmed, and

4) if a lack of vapor-tightness was detected, the concentration of total gaseous hydrocarbons on which the lack of vapor-tightness is based and the background concentration of total gaseous hydrocarbons.

2. The following information relating to detection of conditions requiring pumping of a well cellar as required in Section D.3.c shall be recorded for each detection:

a. the date of the detection,

b. the name of the person and company performing the test or inspection, and

c. the date and time the well cellar is pumped.

3. An owner or operator claiming exemption B.3.a.1) shall perform a test at least once per year on a date selected by the district. Copies of the lab results showing ROC concentrations of the liquid entering and the liquid exiting the sump, the volume of liquid entering the sump during the month the samples where taken, and the resulting ROC loss, shall be submitted to the district for approval.

4. Owners or operators claiming an exemption per Section B.3.a.2) shall maintain records of the volume of oil produced each month and the number of days that oil was produced.

5. Owners or operators claiming an exemption per Section B.3.b. shall maintain records which show each day the pit was used during each calendar year. These records shall be updated daily during periods of sump use.

6. Owners or operators claiming an exemption per Section B.6 shall make production records available for each well for which the exemption is claimed.

7. All records required by this Rule shall be maintained at the facility for a period of three years after the end of each calendar year and made available to the District upon request.

H. Requirements - Sampling and Calculations

1. Sampling related to the exemption provided in Section B.3.a.1) shall be done annually on a date chosen by the District. Samples shall be taken according to ASTM 4057 88. In the event sampling and subsequent testing shows a facility no longer qualifies for this exemption, facilities that have successfully demonstrated exempt status for the previous three years may have one retest on a date chosen by the District.

2. Overall efficiency shall be calculated by multiplying the capture efficiency by the control efficiency and expressing the result as a percentage.

3. Control efficiency as required by Sections D.2.b.2) or D.2.b.3) shall be calculated by dividing the difference between control device inlet and exhaust quantities of total

gaseous hydrocarbons, excluding methane, by said inlet quantity. However, if the control device is a thermal oxidizer, the control efficiency may be calculated according to 40 CFR 60.113b.c.1.i.

4. Calculations of monthly ROC emissions for the purpose of determining a Section B.3.a.1) exemption shall be performed as follows:

$$\text{Monthly ROC} = V\,(ROC_{inlet} - ROC_{outlet})$$

where: V is the Volume of wastewater through the sump during the month that wastewater was sampled for ROC content

ROC_{inlet} is the concentration of ROC in liquid to enter the sump or pit

ROC_{outlet} is the concentration of ROC in liquid leaving the sump or pit

5. Any margin of error associated with a test method or protocol shall not be incorporated into the results of any test.

I. Requirements - Test Methods

1. Capture efficiency as required to determine overall control efficiency shall be determined using method specified in 55 Federal Register 26865, June 29, 1990.

2. For the purpose of determining applicability of Section B.3.a.1), concentration of ROC in liquid shall be determined using purge and trap (EPA Method 5030) and extraction (EPA Method 3510) with gas chromatograph mass spectroscopy. Stock standards shall be prepared using crude oil or other fluids as appropriate.

3. To determine cover material adequacy, impermeability to ROCs shall be determined using ASTM F119-82. Manufacturer's written certification of impermeability, where based on these methods, is sufficient.

4. For the purpose of determining control efficiency as required in section D.2.b.3), total gaseous hydrocarbon concentration shall be determined using US EPA Test Method 25A and vapor flow through pipes shall be determined using US EPA Test Method 2A, 2B, 2C, or 2D, as appropriate.

5. Vapor-tightness shall be determined using US EPA Test Method 21. The analyzer shall be calibrated with methane. If the alternative screening procedure referenced in Method 21 is used and bubbles are observed, the instrument technique specified in Method 21 shall be used within the same working day to determine vapor-tightness.

6. An alternate test method that is comparable in accuracy to the cited method may be used in place of the above specified methods. The alternate method must be approved by the Control Officer, CARB and USEPA.

J. Compliance Schedule

1. Owners and operators with well cellars and well heads subject to this rule shall operate them in full compliance with this rule by April 30, 1996.

2. Sumps and pits with surface areas greater than or equal to 2000 square feet are subject to the following compliance schedule:

   a. an application for an Authority to Construct emission reduction equipment for an existing sump or pit shall be submitted not later than October 30, 1995.

   b. any person requesting an exemption per Section B.3.a.1), B.3.a.2), or B.3.b shall submit documentation to the District that demonstrates their exempt status no later than October 30, 1995. This documentation shall be provided in a format provided by the District. Exemption requests submitted in any other format will be subject to the cost reimbursement provisions of Rule 210.

   c. shall be in full compliance no later than April 30, 1996.

3. Sumps and pits with surface areas less than 2000 square feet are subject to the following compliance schedule:

   a. an application for an Authority to Construct emission reduction equipment for an existing sump or pit shall be submitted not later than October 30, 1997.

   b. any person requesting an exemption per Section B.3.a.1), B.3.a.2), or B.3.b shall submit documentation to the District that demonstrates status no later than October 30, 1997. This documentation shall be provided in a format provided by the District. Exemption requests submitted in any other format will be subject to the cost reimbursement provisions of Rule 210.

   c. shall be in full compliance no later than April 30, 1998.

4. The owner or operator of any facility that claims exemptions B.3.a.1), B.3.a.2), or B.3.b shall submit an application for an Authority to Construct within 90 days after the expiration of the exemption and be in full compliance within 12 months of same.

RULE 346. LOADING OF ORGANIC LIQUID CARGO VESSELS. (Adopted 10/13/1992, revised 1/18/2001)

A. Applicability

The provisions of this rule shall apply to the transfer of organic liquids into an organic liquid cargo vessel.

B. Exemptions

The provisions of this rule shall not apply:

1. to the transfer of gasoline (see Rule 316) or the transfer of organic liquids via pipeline.

2. to any equipment that transfers organic liquids, provided that the true vapor pressure never exceeds that specified in Section D.1., D.2.,or D.3., whichever is applicable. Any person claiming this exemption shall submit to the Control Officer a true vapor pressure analysis performed by a District approved laboratory, of all products transferred, certifying that the true vapor pressure at the maximum temperature of transfer does not exceed that specified in D.1., D.2., or D.3., whichever is applicable, on an annual basis. Organic liquids listed in Attachment 1 transferred below the temperature listed in and under the appropriate vapor pressure specified for control under Section D. shall not be required to submit a true vapor pressure analysis.

3. during the calibration of the marker inside a cargo tank when done by the Santa Barbara County Department of Weights and Measures in accordance with their procedures.

4. to the transfer of natural gas liquids, propane, butane or liquefied petroleum gases.

The provisions of Section D., E., and F. shall not apply:

5. to vacuum trucks used for maintenance operations and transport of liquids off-site.

C. Definitions

1. "**Bottom Loaded**" means that the fuel transfer and vapor return lines have separate, independent, and dedicated attachments on the organic liquid cargo vessel, the inlet is flush with the bottom of the organic liquid cargo vessel, and the organic liquid cargo vessel hatches remain closed during fuel transfer.

2. **"Heavy Organic Liquid"** means organic liquid with American Petroleum Institute gravity less than twenty degrees.

3. **"HOST Test Method"** means the "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatography", approved by the United States Environmental Protection Agency and any subsequent updates approved by the United States Environmental Protection Agency.

4. "**Leak** " means the detection of total gaseous hydrocarbons in excess of 10,000 ppmV as methane above background measured according to test methods in Section H.

5 **"Light Organic Liquid"** means organic liquid with American Petroleum Institute gravity greater than or equal to twenty degrees.

6. "**Organic Liquid**" means any chemical compound of carbon excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate.

7. "**Organic Liquid Cargo Vessel**" means a truck, trailer, or railroad car with a storage device for the purpose of transporting petroleum products or organic liquids.

8. "**Submerged fill pipe**" means a fill pipe or discharge nozzle where, if the storage container is filled from the top, the discharge opening is entirely submerged when the liquid level is 6 inches above the bottom of the container.

D. Requirements - Loading Facilities

1. No person shall transfer or allow the transfer of organic liquids having a true vapor pressure (TVP) of 1.5 pounds per square inch atmospheric or greater, at temperature of transfer, into any organic liquid cargo vessel without using a submerged fill pipe.

2. No person shall transfer or allow the transfer of organic liquids into any organic liquid cargo vessel from a loading facility where the total organic liquid throughput into such vessels exceeds or has exceeded 20,000 gallons in any one day of organic liquid with a true vapor pressure of 1.5 pounds per square inch absolute or higher, or exceeds 150,000 gallons in any one year of organic liquid with a true vapor pressure of 0.5 pounds per square inch absolute or higher at temperature of transfer, without:

   a. Using bottom-loading and a vapor recovery system that prevents the vapors displaced during loading from being released into the atmosphere. Alternatively, a vapor disposal system may be used which is capable of processing such vapors and gases with a vapor destruction or removal efficiency of at least 90 percent by weight; and

   b. Using one of the following devices to prevent overfill:

      1) A primary overfill protection system consisting of a preset fill meter with automatic flow shutoff and a secondary overfill protection system consisting of a liquid level sensor with the ability to signal high level to activate a control valve to shut off flow, or

      2) A combination of overfill devices and/or procedures, submitted in writing to the Control Officer, that is at least as effective in preventing overfill spillage as the system in Subsection D.2.b.1);

      and,

   c. Using either a block and bleed valve system or other connectors with equivalent spill prevention characteristics.

3. Any loading operation equipment, vapor recovery system, or other equipment required by this rule shall be inspected and repaired for leaks as specified in Section F. of this Rule. The vapor recovery system shall be operated and maintained so that it does not cause the pressure in any delivery vessel to exceed 18 inches water gauge or the vacuum to exceed 6 inches water gauge.

E. Requirements - Organic Liquid Cargo Vessels

1. No person shall transfer or allow the transfer of organic liquids from a facility required to have a vapor recovery system under Section D.2., into an organic liquid cargo vessel using loading equipment having a vapor recovery system unless the delivery vessel is leak free and is permanently equipped with:

   a. A properly installed vapor recovery system that is compatible with the loading facility. The vapor recovery system must be issued a vapor recovery system certificate by the California Highway Patrol annually; and

b. A pressure-vacuum relief device for each compartment that is set at the maximum safe pressure and vacuum ratings of the vessel; and

c. A secondary overfill protection system compatible with the loading facility secondary overfill protection system, or some other procedure or method approved in writing by the Control Officer that is at least as effective in preventing overfill spillage; and

d. A loading connector/adapter that is compatible with those required at the loading facility.

2. No person shall transfer or allow the transfer of organic liquids from a facility required to have a vapor recovery system under Section D.2., into an organic liquid delivery vessel unless the vapor recovery system of the facility and the vessel is properly connected, is properly operating, does not leak, and all hatches are closed during transfer operations.

3. No person shall transport organic liquids in organic liquid cargo carriers unless all hatches, valves, and fittings are closed.

F. Requirements - Operator Inspection and Repair

Inspections, repair, reporting and recordkeeping for fugitive emissions at facilities subject to Rule 331 shall be conducted as required by Rule 331. In addition, the operator of any loading facility subject to this rule shall comply with the following:

1. The operator of any equipment subject to Subsection D.2. of this rule shall annually monitor one complete loading operation for leaks proper operation of the loading equipment, delivery vessel vapor recovery and overfill protection systems. Operators shall use United States Environmental Protection Agency Method 21 for monitoring leaks during annual inspections.

2. Leaks found during this inspection shall be reported, repaired, and recorded in accordance with Rule 331. Any other malfunction of the system shall be reported as required under Rule 505.

G. Recordkeeping

1. The operator of any loading equipment subject to Subsection D.2. of this rule, but not subject to Rule 331, shall maintain a record of inspections required by Section F. of this rule and shall record, at a minimum, the following:

a. Date of inspection and operator's initials.

b. Name and location of loading equipment and amount of organic liquid transferred.

c. Description of any leak or malfunction of the vapor recovery or overfill prevention systems.

d. Date component was repaired and type of repair, if applicable.

e. Whether or not delivery vessels hatches are closed during filling and if any spillage occurs.

f. Delivery vessel identification and name of delivery company.

Copies of the inspection report shall be retained by the operator for a minimum of 3 years after the date of any entry and shall be made available upon request to District personnel.

2. Any person claiming exemption from the vapor recovery requirements of Subsection D.2. based on the throughput of organic liquids through the loading equipment, except for vacuum trucks, shall maintain adequate records to substantiate that exemption that include, at a minimum:

   a. Identification and location of all loading facilities where organic liquids are transferred or loaded into an organic liquid cargo vessel.

   b. Record the gallons of organic liquid loaded into an organic liquid cargo vessel on each day a transfer takes place and on an annual basis for each loading facility exempt from the vapor recovery requirements of Section D.2. Include operator's initials, date of loading operation, name of liquid transferred and transfer temperature, and method of determining throughput for each loading operation.

3. Any person transferring organic liquid into a vacuum truck and transporting such liquid that is either manifested or shipped under a bill of lading as required by any federal or state regulations shall record the following:

   a. Date of transfer and operator's initials.

   b. Location of transfer operation and estimated amount of organic liquid transferred.

   c. Destination of organic liquid being transferred.

   Copies of these records shall be collected and retained by the loading facility operator for a minimum of 3 years after date of an entry and shall be made available upon request to District personnel.

H. Test Methods

1. Vapor pressure of tank contents shall be determined as follows:

   a. If the American Petroleum Institute gravity of the oil is greater than or equal to 20 degrees, then the vapor pressure shall be determined by measuring the Reid vapor pressure and converting the result to true vapor pressure at the tank's maximum liquid storage temperature.

      1) Reid vapor pressure shall be measured using Test Method for Vapor Pressure for Petroleum Products, American Society for Testing and Materials Method D 323-82.
      2) Conversion shall be done using either the American Petroleum Institute nomograph attached hereto as Attachment A or the conversion calculation specified in the oil and gas section of the California Air Resources Board document entitled "Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588" dated August 1989 and attached hereto as Attachment B. If the American Petroleum Institute nomograph scales do not encompass the values necessary for its use, conversion shall be done using Attachment B.

   b. If the American Petroleum Institute gravity of the oil is below 20 degrees, then the vapor pressure shall be determined using the HOST Test Method. For purposes of this rule, vapor pressure shall include the vapor pressure of all hydrocarbon compounds, i.e., hydrocarbon compounds containing from one to ten carbon atoms, present in the oil sample as determined by gas chromatography.

   c. The American Petroleum Institute gravity shall be determined according to American Society for Testing and Materials Method D287-82.

2. The test method for determining the vapor removal system efficiency in Subsection D.2.a. shall be as follows:

   California Air Resources Board Method TP 202.1 or California Air Resources Board Method TP 203.1, whichever is applicable. The Control Officer may approve an alternative method provided that method is comparable in accuracy and is approved by the California Air Resources Board and the United States Environmental Protection Agency.

3. Monitoring for gaseous leaks shall be conducted according to United States Environmental Protection Agency Reference Method 21. The analyzer shall be calibrated with methane. If the alternative screening procedure referenced in Method 21 is used and bubbles are observed, the instrument technique specified in Method 21 shall be used within the same working day to determine if a leak exists.

I. Compliance Schedule

1. Any owner or operator required, in order to comply with this rule, to modify or replace an existing loading facility transferring organic liquids shall:

   a. Sample for true vapor pressure in accordance with the test methods in Section H.1.b. of this rule and submit the results to the District no later than April 19, 2001.

   b. If true vapor pressure results do not qualify for an exemption pursuant to Section B. of this rule, submit an ATC application to the District to comply with Section D. of this rule no later than July 18, 2001.

   c. submit a Permit to Operate application no later than January 18, 2002.

2. a. The provisions of Section D., E., F., and G. shall be complied with on or before April 18, 2002.

ATTACHMENT 1

Storage Temperature versus Vapor Pressure

Organic Liquids	Reference Gravity (^{o} API)	Property IBP ^{o}F	Max. Temp. ^{o}F Not to exceed	
			0.5 (psia)	1.5(psia)
Middle Distillates:				
Kerosene	42.5	350	195	250
Diesel	36.4	372	230	290
Gas Oil	26.2	390	249	310
Stove Oil	23	421	275	340
Jet Fuels:				
JP-1	43.1	330	165	230
JP-3	54.7	110	--	25
JP-4	51.5	150	20	68
JP-5	39.6	355	205	260
JP-7	44-50	360	205	260
Fuel Oil:				
No.1	42.5	350	195	250
No.2	36.4	372	230	290
No.3	26.2	390	249	310
No.4	23	421	275	340
No.5	19.9	560	380	465
Residual	19-27		405	---
No.6	16.2	625	450	---
Asphalts:				
60-100 pen.	---	---	490	550
120-150 pen.	---	---	450	500
200-300 pen.	--	--	360	420

ATTACHMENT 1
(Continued)

Organic Compounds	Reference Properties			Max. Temp. °F Not to exceed	
	Density lb/gal	Gravity °API	IBP °F	0.5 (psia)	1.5 (psia)
Acetone	6.6	47	133	---	35
Acrylonitrile	6.8	41.8	173	30	62
Benzene	7.4	27.7	176	34	70
Carbon Disulfide	10.6	---	116	---	10
Carbon Tetra-chloride	13.4	---	170	20	63
Chloroform	12.5	---	142	---	40
Cyclohexane	6.5	49.7	177	30	65
1,2 Dichloroethane	10.5	---	180	35	75
Ethyl Acetate	7.5	25.7	171	38	70
Ethyl Alcohol	6.6	47.0	173	55	85
Isopropyl Alcohol	6.6	47.0	181	62	95
Methyl Alcohol	6.6	47.0	148	30	62
Methyl Ethyl Ketone	6.7	44.3	175	30	70
Toluene	7.3	30	231	75	120
Vinylacetate	7.8	19.6	163	30	65

IBP = Initial Boiling Point

RULE 349. POLYESTER RESIN OPERATIONS. (Adopted 4/27/1993, revised 06/21/2012)

A. Applicability

This rule shall apply to any person owning or operating any commercial or industrial polyester resin operation.

B. Exemptions

1. Section D.1, shall not apply to the addition or use of styrene, provided the volume of styrene used is less than 50 gallons per calendar year per stationary source. Any person claiming this exemption shall maintain styrene usage records of the total volume (gallons) of styrene used per calendar year consistent with Sections F.6 and make them available to the District for review upon request. At a minimum, when using compliant materials, the records shall be kept on a monthly basis; and when using noncompliant materials, the records shall be kept on a daily basis.

2. This rule shall not apply to any cleaning performed with a solvent (including emulsions) that contains two percent by weight or less of each of the following:

    a. Reactive organic compounds, and

    b. Toxic air contaminants (as determined by generic solvent data, solvent manufacturer's composition data or by a gas chromatography test and a mass spectrometry test).

    c. Any person claiming this exemption shall maintain the records specified in Sections F.1.a and F.1.f in a manner consistent with Section F.7 and make them available for review.

3. This rule shall not apply to polyester resin operations performed with polyester resin materials that contain no reactive organic compounds.

4. Section H shall not apply to any of the following:

    a. Cleaning of semiconductor and microelectromechanical devices undergoing manufacturing processes involving thin film deposition, vacuum deposition, dry etching, or metal lift-off operations; including any maintenance activities associated with such operations;

    b. Cleaning of electronic components;

    c. Cleaning of encasements, including decoy shells or box casings, for electronic components that have a total surface area that is less than 2 square feet;

    d. Cleaning of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

    e. Cleaning of transparencies, polycarbonate, or glass substrates;

    f. Cleaning of solar cells, coated optics, laser hardware, scientific instruments, high-precision optics, telescopes, avionic equipment, microscopes, and military fluid systems;

    g. Cleaning or stripping of coating overspray from personal protective equipment;

    h. Cleaning of space vehicles.

5. Section H shall not apply to polyester resin operations production or rework of the following products, provided the solvents used contain 200 grams of reactive organic compound per liter of

material or less or have a reactive organic compound composite partial pressure of 45 millimeter of mercury at 20 degrees Celsius or less:

a. Satellites, satellite components, aerospace vehicles, aerospace vehicle components, aerospace vehicle payloads, or aerospace vehicle payload components.

6. Section H shall not apply to polyester resin operations production or rework of products used in any laboratory tests or analyses, including quality assurance or quality control applications, bench scale projects, or short-term (less than 2 years) research and development projects. To qualify for this exemption, the following records shall be maintained:

a. A list of all solvents used, which at a minimum includes the manufacturer's identification and the reactive organic compound content of each solvent.

b. For each short-term research and development project, the project description, date it commenced, and date it concluded.

c. Such records shall be retained in accordance with the provisions of Section F.7.

7. Section H shall not apply to cleaning or stripping of polyester resin material from personal protective equipment.

C. Definitions

See Rule 102, Definitions, for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Aerospace Vehicle or Component" means any fabricated part, processed part, assembly of parts, or completed unit of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles includes satellites.

"Associated Solvent" means any solvent used in a solvent cleaning machine or for solvent cleaning performed in association with a polyester resin operation.

"Atomized Resin Application" means any resin application technology in which the resin leaves the application equipment and breaks into droplets or an aerosol as it travels from the application equipment to the surface of the part. Atomized resin application includes, but is not limited to, resin spray guns and resin chopper spray guns.

"Bench Scale Project" means a project (other than at a research and development facility) that is operated on a small scale, such as one capable of being located on a laboratory bench top.

"Catalyst" means any substance added to the resin to initiate polymerization.

"Cleaning Materials" include but are not limited to, materials used for cleaning hands, tools, molds, application equipment, and work area.

"Clear Gel Coat" means any gel coat that is clear or translucent so that underlying colors are visible. Clear gel coat is used to manufacture parts for sale. Clear gel coat do not include tooling gel coat used to build or repair molds.

"Compliant Material" means any polyester resin material that complies with the 1) applicable monomer content limits in Section D.1.a, D.1.b, or D.1.c, or 2) the D.1.d emission limit of grams per square meter of exposed surface area during resin polymerization; or any solvent that complies with the reactive organic compound content limit in Section H.

"Closed Mold System" means any method of forming objects from polyester resins by placing the polyester resin material in a confining mold cavity and applying pressure and/or heat.

"Control" means the reduction, by destruction or removal, of the amount of affected pollutants in a gas stream prior to discharge to the atmosphere.

"Control System" means any combination of pollutant capture system(s) and control device(s) used to reduce discharge to the atmosphere of reactive organic compound or toxic air contaminant emissions generated by a regulated operation.

"Corrosion-Resistant Resin" means any polyester resin material used to make products for corrosion resistant applications such as, but not limited to, tooling, fuel or chemical tanks, boat hulls, pools, and outdoor spas.

"Cross-Linking" means any chemical process of chemically bonding two or more polymer chains together.

"Cure" means to polymerize, i.e., to transform from a liquid to a solid or semi-solid state to achieve desired product physical properties, including hardness.

"Fiberglass" means a fiber made from glass and similar in appearance to wool or cotton fiber.

"Filler" means any finely divided inert (non-ROC) material that is added to the resin to enhance its mechanical properties and extend its volume. Fillers include, but are not limited to, silica, carbon black, talc, mica and calcium carbonate.

"Fire Retardant Resin" means any polyester resin material used to make products that are resistant to flame or fire.

"Fluid Impingement Technology" means any spray gun that produces an expanding nonmisting curtain of liquid by the impingement of low-pressure uninterrupted liquid streams.

"Gel Coat" means a polyester resin topcoat that provides cosmetic enhancement and improves resistance to degradation from exposure to the environment.

"High-Strength Resin" means any polyester resin material with a casting tensile strength of 10,000 pounds per square inch or more, used to manufacture high performance products.

"Inhibitor" means any substance used to slow down or prevent a chemical reaction.

"Lamination Resins" means any orthophthalate, isophthalate and dicyclopentadiene resins used in composite system consisting of layers of reinforcement fibers and resins.

"Maintenance Cleaning" means a solvent cleaning operation or activity carried out to keep clean general work areas where manufacturing or repair activity is performed, to clean tools, machinery, molds, forms, jigs, and equipment. This definition does not include the cleaning of adhesive, coating, or ink application equipment.

"Marble or Cultured Resins" means any orthophthalate and modified acrylic isophthalate resins, which are designed for the fabrication of cast products, such as vanities.

"Marble Resins" means any orthophthalate and modified acrylic isophthalate resins used for the fabrication of cast products.

"Mold" means any cavity or surface into or on which gel coat, resin, and fibers are placed and from which finished fiberglass parts take their form.

"Monomer" means any organic compound that combines with itself, or other similar compounds to become a cured thermosetting resin (e.g., styrene).

"Non-Atomized Resin Application" means any application technology in which the resin is not broken into droplets or an aerosol as it travels from the application equipment to the surface of the part. Non-atomized resin application technology includes, but are not limited to, non-atomizing spray guns, flowcoaters, chopper flowcoaters, pressure fed resin rollers, resin impregnators, or fluid impingement technology.

"Noncompliant Material" means any polyester resin material that does not comply with the 1) applicable monomer content limits in Section D.1.a, D.1.b, or D.1.c, or 2) the D.1.d emission limit of grams per square meter of exposed surface area during resin polymerization; or any solvent that does not comply with the reactive organic compound content limit in Section H.

"Open Molding Resin and Gel Coat Process" means any process in which the reinforcing fibers and resin are placed in the mold and are open to the surrounding air while the reinforcing fibers are saturated with resin. For the purpose of this rule, open molding includes operations in which a vacuum bag or similar cover is used to compress the uncured laminate to remove bubbles or excess resin, or to achieve a bond between core material and a laminate.

"Pigmented Gel Coat" means any opaque gel coat used to manufacture parts for sale. Pigmented gel coat does not include tooling gel coat used to build or repair molds.

"Polyester" is a complex polymeric ester containing difunctional acids and alcohols dissolved in a monomer.

"Polyester Resin Materials" include, but are not limited to, unsaturated polyester resins such as isophthalic, orthophthalic, halogenated, bisphenol A, vinyl ester, or furan resins; cross-linking agents; catalysts, gel coats, inhibitors, accelerators, promoters, and any other reactive organic compound containing materials in polyester resin operations.

"Polyester Resin Operations" means those methods used for the production or rework of products by mixing, pouring, hand lay-up, impregnating, injecting, forming, winding, spraying, and/or curing unsaturated polyester resin materials with fiberglass, fillers, or any other reinforcement materials and associated solvent cleaning.

"Polymer" means any chemical compound comprised of a large number of chemical units and which is formed by the chemical linking of monomers.

"Primer Gel Coat" means any gel coat used to coat the surface of composite parts prior to top-coat painting in the automotive, aerospace, marine and home building industries.

"**Repair"** means the process of returning a damaged object or an object not operating properly to good condition.

"Resin" means any of a class of organic polymers of natural or synthetic origin used in reinforced products to surround and hold fibers, and is solid or semi-solid in the cured state.

"Solid Surface Resins" means any resin used without gel coats to fabricate homogenous solid surface products.

"Solvent" means any liquid containing any reactive organic compound or any toxic air contaminant, which is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent, drying agent, preservative, or other similar uses.

"Solvent Cleaning" means any activity, operation, or process (including, but not limited to, surface preparation, cleanup, or wipe cleaning) performed outside of a solvent cleaning machine, that uses solvent to remove uncured adhesives, uncured coatings, uncured inks, uncured polyester resin material, uncured sealant, or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment, and general work areas. Cleaning spray equipment used for the application of coating, adhesive, ink, polyester resin material, or sealant is also considered to be solvent cleaning irrespective of the spray material being cured.

"Solvent Cleaning Machine" means any device or piece of equipment that uses solvent liquid or vapor to remove soils, moisture, or other contaminants from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch cold, batch vapor, in-line cold, in-line vapor, remote reservoir, and gas-path solvent cleaners. Buckets, pails, and beakers with capacities of 3.785 liters (1.00 gallon) or less are not considered solvent cleaning machines. However, the use of such a container or similar containers (e.g., hand-held spray bottles) with a liquid solvent for cleaning is considered to be solvent cleaning. Any device or piece of equipment used exclusively for stripping shall not be considered to be a solvent cleaning machine.

"Specialty Gel Coat" means any gel coat which is used in conjunction with fire retardant, corrosion resistant, or high-strength materials.

"Specialty Resin" means any halogenated, furan, bisphenol A, vinyl ester, or isophthalic resin used to make products for exposure to one or more of the following extreme environmental conditions: acute or chronic exposure to corrosive, caustic, acidic agents, or flame.

"Tooling Gel Coat" means any gel coat used to build or repair molds (also known as tools) or prototypes (also known as plugs) from which the molds will be made.

"Tooling Resin" means any resins used to build or repair molds (also known as tools) or prototypes (also known as plugs) from which the molds will be made.

"Tub/Shower Resin" means any dicyclopentadiene resin, along with orthophthalate and isophthalate resins, used to fabricate bathware products.

"Vapor Suppressant" means any substance added to resin to minimize the outward diffusion of monomer vapor into the atmosphere.

"Waste Materials" include, but are not limited to any paper or cloth used for cleaning operations, waste resins, and any spent cleaning materials.

D. Requirements

1. Process and Control

   No person shall operate a polyester resin operation unless the operation complies with one or more of the following, as applicable.

   a. Before June 21, 2014, use polyester resin material with monomer content of no more than 35 percent by weight as applied and as determined by the manufacturer's specification. This requirement shall not apply to gel coats, provided the monomer content does not exceed 45 percent by weight for pigmented gel coats and does not exceed 50 percent by weight for clear gel coats. On and after June 21, 2014, use materials that comply with the limits in Table 349-1; or,

   b. Before June 21, 2014, use specialty resin with a monomer content of no more than 50 percent by weight as applied and as determined by the manufacturer's specification. On and after June 21, 2014, use materials that comply with the limits in Table 349-1; or,

c. On and after June 21, 2014, use polyester resin material that comply with the limits shown in Table 349-1 below when using the open molding resin and gel coat process; or

Table 349-1: Monomer Content Limits for Polyester Resin Materials

Polyester Resin Material	As-Applied Monomer Content Limits (Percentage, by Weight)
Clear Gel Coat	
For Marble Resins	40%
All Other Resins	44%
Pigmented Gel Coat	
White and Off White	30%
Non-White	37%
Primer	28%
Specialty Gel Coat	28%
Tooling Gel Coat	40%
General Purpose Resin	
Lamination Resins	31% or 35%, as supplied, with no fillers
Marble or Cultured Resins	10% or 32%, as supplied, with no fillers
Solid Surface Resins	17%
Tub/Shower Resins	24% or 35%, as supplied, with no fillers
Specialty Resin	
Corrosion Resistant Resin	48%
Fire Retardant Resin	38%
High Strength Resin	40%
Tooling Resin	
Atomized (spray)	30%
Non-atomized	39%
All Other Resin	35%

d. Before June 21, 2014, use a resin containing a vapor suppressant, such that the weight loss from reactive organic compound emissions does not exceed 60 grams per square meter of exposed surface area during resin polymerization. On and after June 21, 2014, use a resin containing a vapor suppressant, such that the weight loss from reactive organic compound emissions does not exceed 50 grams per square meter of exposed surface area during resin polymerization. The "grams per square meter of exposed surface area during resin polymerization" shall be determined by the test method specified in Section E.2; or,

e. Use a closed mold system; or,

f. Install and operate an add-on control system, provided all of the applicable requirements below are met. Any person installing such control system shall obtain an Authority to Construct from the District prior to installation.

i. Before June 21, 2014, the overall efficiency (the capture efficiency multiplied by the control device efficiency) of the total system shall be at least 85 percent, by weight. On and after June 21, 2014, the overall efficiency shall be at least 90 percent, by weight. Alternatively, the control device reactive organic compound exhaust concentration shall not exceed 10 parts per million by volume as

propane or other limit approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

ii. Combustion temperature shall be continuously monitored when operating a thermal incinerator.

iii. Inlet and exhaust gas temperatures shall be continuously monitored when operating a catalytic incinerator.

iv. Control device efficiency shall be continuously monitored when operating a carbon adsorber or a control device other than a thermal or catalytic incinerator.

v. Compliance through the use of an emission control system shall not result in affected pollutant emissions in excess of the affected pollutant emissions that would result from compliance with Sections D.1.a - D.1.d or H.

2. Spray Application Methods

No person shall apply polyester resin materials in a spraying operation unless the application is performed with equipment operating according to the manufacturers operating guidelines. In addition, the application method employed shall be one of the following:

a. Airless, or

b. Air-assisted airless, or

c. High volume low pressure spraying equipment, or

d. Electrostatic spray equipment, or

e. Any other spray application method approved by the Control Officer, the Air Resources Board, and the Environmental Protection Agency.

3. General Operating

Any person who owns or operates any polyester resin operation equipment or uses any associated solvent subject to this rule shall meet the following requirements:

a. All polyester resin materials and cleaning materials, used or unused, shall be stored and disposed of in nonabsorbent and nonleaking containers equipped with tight-fitting covers. All covers shall be in place unless adding material to or removing material from the containers, the containers are empty, or doing maintenance/inspection of the containers.

b. All application equipment, ventilation system, and emission control equipment shall be installed, operated, and maintained consistent with the manufacturer's specifications.

c. Waste solvent, waste solvent residues, and any other waste material that contains reactive organic compounds shall be disposed of by one of the following methods:

i. A commercial waste solvent reclamation service licensed by the State of California.

ii. At a facility that is federally or state licensed to treat, store or dispose of such waste.

iii. Recycling in conformance with Section 25143.2 of the California Health and Safety Code.

d. All covers, valves, drain plugs, and other closure devices designed to reduce polyester resin material and cleaning material evaporation shall not be removed or opened except to process work or to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers or other closure devices.

e. Any spills of polyester resin materials or cleaning materials shall be wiped up immediately and the used absorbent material (e.g., cloth, paper, sand, sawdust, etc.) shall be stored in closed containers that are handled in accordance with Section D.3.a.

f. The handling and transfer of polyester resin materials and cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent coatings and cleaning solvents shall be conducted in such a manner to minimize spills.

g. Containers used to store polyester resin material, solvent, or any waste material that contains reactive organic compounds subject to this rule shall be marked or clearly labeled indicating the name of the material they contain.

E. Compliance Provisions and Test Methods

1. Polyester resin material monomer contents shall be measured using ASTM D2369-95, "Standard Test Method for Volatile Content of Coatings," ASTM International. Material tested shall be non-catalyzed.

2. The weight loss from reactive organic compound emissions shall be measured by laboratory static tests, "Static Method for Determination of Volatile Emissions from Polyester and Vinyl Ester Resins," as described in Attachment A.

3. The capture efficiency for reactive organic compound emissions shall be determined by verifying the use of a Permanent Total Enclosure and 100 percent capture efficiency as defined by Environmental Protection Agency Method 204, **"**Criteria for and Verification of a Permanent or Temporary Total Enclosure." Alternatively, if an Environmental Protection Agency Method 204 defined Permanent Total Enclosure is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the Environmental Protection Agency technical guidance document **"**Guidelines for Determining Capture Efficiency, January 9, 1995." Individual capture efficiency test runs subject to the Environmental Protection Agency technical guidelines shall be determined by:

   a. The Temporary Total Enclosure approach of Environmental Protection Agency Methods 204 through 204F; or

   b. The South Coast Air Quality Management District **"**Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency," May 1995.

4. The control device efficiency for reactive organic compound emissions shall be determined by Environmental Protection Agency Methods 25, 25A, the South Coast Air Quality Management District Method 25.1, **"**Determination of Total Gaseous Non-Methane Organic Emissions as Carbon," February 1991, or the South Coast Air Quality Management District Method 25.3, **"**Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources," March 2000, as applicable. Environmental Protection Agency Test Method 18 or Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990, shall be used to determine emissions of exempt compounds.

5. Solvent reactive organic compound content shall be measured by the Environmental Protection Agency Reference Method 24, its constituent methods, or an equivalent method approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer. The determination of exempt compounds shall be performed in accordance with ASTM D 4457-1991, **"**Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph,**"** ASTM International. Alternatively, determination of exempt compounds may be performed in accordance with the South Coast Air Quality Management District Method 303-91, "Determination of Exempt Compounds," August 1996. The reactive organic compound content of materials containing 50 grams of reactive organic compound per liter or less shall be determined by the South Coast Air Quality Management District Method 313-91, **"**Determination of Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry,**"** June 1993, or any other test methods approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

6. The capture efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined by using the methods described in Section E.3 modified in a manner approved by the Control Officer to quantify the mass of liquid or gaseous reactive organic compounds and/or toxic air contaminants.

7. The control device efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined using:

    a. an Environmental Protection Agency approved test method or methods, or

    b. in the case where there is no Environmental Protection Agency approved test method, a Control Officer approved detection method applicable for each target toxics specie.

    c. the Control Officer may require more than one test method on any emission control device where necessary to demonstrate that the overall efficiency is at least 85 percent by weight in reducing emissions of reactive organic compounds and/or toxic air contaminants. Any technique to convert "parts per million by volume" test method results to either 1) "parts per million by weight," or 2) "mass emission rates" (e.g., pounds per hour) shall first be approved by the Control Officer and, if such approval is not provided, then the technique shall not be used to show compliance with this rule.

8. Emissions of reactive organic compounds from the exhaust of an emission control system shall be measured by the Environmental Protection Agency Method 25, in combination with Environmental Protection Agency Method 18 or the California Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990 (to determine emissions of exempt compounds).

9. When more than one test method or set of test methods are specified for any testing, a test result showing an exceedance of any limit of this rule shall constitute a rule violation.

10. The Environmental Protection Agency test methods in effect on June 21, 2012 shall be the test methods used to meet the requirements of this rule.

F. Recordkeeping

Any person subject to this rule shall comply with the following requirements. Any owner or operator of any stationary source comprised of more than one facility may comply with the following requirements on a facility basis.

1. Maintain a current file of all reactive organic compound-containing materials in use at the stationary source subject to this rule. The file shall provide all of the data necessary to evaluate compliance and shall include the following information, as applicable:

a. the type of resin, catalyst, and cleaning materials used (e.g., brand name, stock identification number);

b. if applying polyester resin materials in spraying operations, indicate the spray application method used (e.g., airless, air-assisted airless, etc.);

c. for approved vapor suppressed resins, the weight loss (grams per square meter) during resin polymerization, the monomer percentage, and the gel time for each resin;

d. if mixing solvents, specific solvent mixing data (e.g., component volumes or weights) of each component for each batch sufficient to determine the mixture's reactive organic compound content;

e. the actual as applied reactive organic compound content of the solvent used and, when not using a closed mold system, the corresponding monomer content limits from Sections D.1.a, b, or c, and the actual as applied monomer contents; or if complying using a vapor suppressant, the actual polyester or vinyl ester resin weight loss rate of the materials used; and

f. current polyester resin material and solvent manufacturer specification sheets, Material Safety Data Sheets, product data sheets, or air quality data sheets, which list the reactive organic compound content of each material in use at the stationary source subject to this rule. Compliance with this provision may be done by ensuring the manufacturer's specifications are listed on the product container.

2. Maintain records for each reactive organic compound-containing material purchased for use at the stationary source. The records shall include, but not be limited to, the following:

a. material name and manufacturer identification (e.g., brand name, stock identification number); and

b. material type (e.g., polyester resin material type as specified in Table 349-1, cleanup solvent, etc.).

3. Maintain records of the disposal method each time waste solvent, waste solvent residue, or other waste material that contain reactive organic compounds is removed from the stationary source for disposal.

4. For each material listed in response to Section F.1.a, maintain, at a minimum, on a monthly basis for compliant material and on a daily basis for noncompliant material, a record of the following:

a. volume used (gallons per day, gallons per month);

b. polyester resin material as-applied weight percent of monomer and the cleaning material reactive organic compound content (grams per liter or pounds per gallon);

c. polyester resin material reactive organic compound emission factors (pounds of reactive organic compounds per pounds of monomer used or pounds of reactive organic compounds per gallon); and

d. resulting reactive organic compound emissions (pounds per day, pounds per month).

5. For any stationary source that uses emission control equipment to meet the requirements of this rule, daily records of key operating parameter values and maintenance procedures that demonstrate continuous operation and compliance of the emission control system during periods

of emission producing activities shall be maintained. These parameters shall include, but not be limited to:

a. Hours of operation;

b. All maintenance work that requires the emission control system to be shut down; and

c. All information needed to demonstrate continuous compliance with Section D.1.f, such as temperatures, pressures, and/or flow rates.

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6. Any person claiming an exemption under Section B.1 shall maintain, at a minimum, monthly records for compliant material and daily records for noncompliant material of styrene volumes used in gallons per day and/or gallons per month to support the claim of exemption.

7. Any records required to be maintained pursuant to this rule shall be kept on site for at least 2 years unless a longer retention period is otherwise required by state or federal regulation(s). Such records shall be kept on site and be readily available for inspection and review by the District.

G. Compliance Schedule

Any person who owns or operates any polyester resin operation equipment subject to this rule shall meet the following compliance schedule:

1. By June 21, 2012, comply with Section D.3, General Operating.

2. By December 21, 2012, comply with the recordkeeping provisions in the following Sections:

a. F.1.d - mixing data,

b. F.1.e - solvent reactive organic compound content data, polyester resin material monomer contents (when not using a closed mold system), and/or actual weight loss rate data (when using a vapor suppressant),

c. F.1.f - manufacturer specification sheets, Material Safety Data Sheets, air quality data sheets, or manufacturer specification listings on product container,

d. F.2 - purchase records,

e. F.3 - waste disposal records, and

f. F.4 - polyester resin material reactive organic compound emission factor records and daily records for noncompliant materials.

3. By June 21, 2013, comply with the Section H and Section J requirements.

4. By June 21, 2014, comply with any applicable Section D provisions that have a phased-in effective date.

5. By June 21, 2012, comply with all other provisions of this rule.

H. Requirements – Solvent Cleaning

Section H requirements apply to any person performing solvent cleaning associated with polyester resin operations, including, but not limited to, use of wipe cleaning cloths, hand-held spray bottles, squirt bottles, aerosol products, and the cleaning of application equipment. The following requirements become effective June 21, 2012 and are in addition to the general operating requirements specified in Section D.3.

1. **Solvent Requirements.** Except when using an emission control system that meets the requirements of Section D.1.e, no person shall use any solvent to perform solvent cleaning which exceeds the applicable grams of reactive organic compound per liter of material limit specified in Table 349-2.

Table 349-2: Reactive Organic Compound Content Limits for Solvent Cleaning

SOLVENT CLEANING ACTIVITY		ROC Limit, grams of ROC per liter of material (pounds of ROC per gallon)
(a)	Product Cleaning During Manufacturing Process or Surface Preparation for Coating Application	25 (0.21)
(b)	Repair and Maintenance Cleaning	25 (0.21)
(c)	Cleaning of Polyester Resin Application Equipment	25 (0.21)

I. Reporting Requirements

Submittal of an annual report to the District is required if a person holds a permit for equipment subject to the requirements of this rule. The annual report shall be due March 1 and it shall contain the following information for the previous calendar year:

1. monthly totals (gallons) of compliant and noncompliant material used based on the records required by Section F.4,

2. annual totals (gallons) based on each of the polyester resin materials' and cleaning materials' monthly data,

3. if claiming the Rule 349.B.1 exemption, monthly totals of styrene (gallons) used per Section F.6 and the yearly total amount (gallons) of styrene used, and

4. name and address of the company or agency and the Permit to Operate number that the polyester resin operation is subject to.

J. Requirements - Solvent Cleaning Machine

Any person who owns, operates, or uses any solvent cleaning machine shall comply with the applicable provisions of Rule 321, Solvent Cleaning Machines and Solvent Cleaning.

ATTACHMENT A

STATIC METHOD FOR DETERMINATION OF VOLATILE EMISSIONS FROM

POLYESTER AND VINYL ESTER RESINS

1. PURPOSE

1.1 This test is designed for the determination of volatile organic compound emissions of polyester and vinyl ester resins as received from the manufacturer, according to requirements of California's South Coast Air Quality Management District Method 309-91, Determination of Static Volatile Emissions, revised February 1993.

1.2 This test allows fabricators using polyester and vinyl ester resins to monitor volatile organic compound emissions (principally styrene monomer) from resins used in the fabrication process. The results are to be reported as volatile organic compound losses in grams per square meter (gm/m^2).

2. METHOD

The weight of a one gallon can lid filled with 100 grams of resin is accurately measured over a period of time. The measurement is made on resin catalyzed with peroxide initiators to determine weight losses attributed to monomer and other volatile organic compound emissions.

3. EQUIPMENT REQUIREMENTS

3.1 Controlled environment at 25.0 degrees Celsius and humidity of 50 percent relative humidity. If controlled environment is not available, report condition under which measurements are made.

3.2 **Balance** with an accuracy of 0.01gram.

3.3 **Draft free enclosure** for balance. This can be achieved by placing the balance in a four sided enclosure that extends a minimum of eight inches above the top of the balance.

3.4 **Gallon can lid** with deep form sufficient to contain 100 grams of resin, having a normal diameter of 14.5 centimeters.

3.5 **Certified or calibrated thermometer** capable of measurements accurate to 1 degree Celsius.

3.6 **Constant temperature** bath controlled at 25 degrees Celsius to adjust resin temperature to 25 degrees Celsius.

3.7 **Timer** - capable of recording time to 0.1 minute.

3.8 **Paper clip** - bent to approximately 90 degree angle.

3.9 **Syringe or pipette** accurate to 0.1 milliliter for peroxide catalyst addition.

4. PROCEDURE

4.1 Weigh out 200 grams of prepromoted resin into a suitable dry and clean container. Wax cups should not be used for this test.

4.2 Cover container and place in constant temperature bath and adjust resin temperature to 25 degrees Celsius.

4.3 Place balance in draft free enclosure.

4.4 Clean gallon lid with solvent, wipe dry and air dry and measure diameter to the nearest 0.1centimeter.

4.5 Place gallon can lid on an inverted paper or plastic cup mounted on the balance pan. Position bent paper clip in the center of the gallon can lid. Record TARE WEIGHT to 0.01gram.

4.6 Take container with resin from water bath and add appropriate volumetric or weight measure of catalyst using syringe or pipette. Start timer.

4.7 Using stirring rod or thermometer, mix in catalyst for one minute.

4.8 Pour 100.0 plus or minus 0.5 gram of catalyzed resin into can lid and record weight to plus or minus 0.01 gram. This is the INITIAL WEIGHT.

4.9 Using paper clip, determine when resin has hardened sufficiently to allow resin or lid to be lifted or the gel to be torn.

4.10 Record this as gel time.

4.11 Allow resin to harden in can lid and reweigh every 15 minutes until concurrent weighing agrees to within 0.05gram. Record this as FINAL WEIGHT to plus or minus 0.01gram.

4.12 Procedure should be repeated until duplicate samples agree to the nearest 5 grams per meter^2.

5. CALCULATION

5.1 Volatile Organic Compound Emissions per Square Meter

$$\textit{Area of Gallon Can Lid in } m^2 = \frac{(d/2)^2 \times 3.14}{10{,}000 \text{ cm}^2 / \text{m}^2}$$

Where:
- d = diameter of the gallon can lid in centimeters (cm)
- 3.14 = value of Pi
- cm^2 = square centimeters
- m^2 = square meters

Volatile Organic Compound **Losses, Grams** per Square Meter =
INITIAL WEIGHT - FINAL WEIGHT
Area of Gallon Can Lid in Square Meters

5.2 Percent Volatile Organic Compound Emission =
$$\frac{\text{INITIAL WEIGHT - FINAL WEIGHT}}{\text{INITIAL WEIGHT - TARE WEIGHT}} \times 100$$

6. REPORTING REQUIREMENTS

6.1 Ambient temperature and humidity.

6.2 Resin identification and batch number.

6.3 Initiator system and amounts used.

6.4 Volatile organic compound losses as grams per square meter.

6.5 Percent volatile organic compound emission.

6.6 Gel time under conditions of test.

5-13-99

5/13/99

RULE 351. SURFACE COATING OF WOOD PRODUCTS. (Adopted 8/24/1993, Revised 9/21/1995 and 8/20/1998)

A. Applicability

This rule applies to the application of coating to, and surface preparation of, wood products.

B. Exemptions

1. This rule shall not apply to residential non-commercial wood products coating operations.

2. The provisions of this rule shall not apply to the application of coatings to stationary structures and their appurtenances subject to the provisions of Rule 323 (Architectural Coatings).

3. The provisions of Sections D. and E. shall not apply to a touch-up or repair coating sold in non-refillable aerosol-spray containers with a capacity of 18 ounces or less.

4. The provisions of Section D shall not apply to any refinishing operation necessary for preservation, to return the wood product to original condition, or to replace missing furniture to produce a matching set.

5. A facility may use up to 20 gallons of coatings per year which do not meet the requirements of Section D.1. Coatings used for operations that are exempt per Sections B.3. and B.4 shall not be included in calculating the volume of coatings used under this exemption. Any person claiming this exemption shall maintain records as required in Section I.4.

6. The Reactive Organic Compound limits of Section D.1 shall not apply to coatings applied to wood products used in the interior of motor vehicles.

C. Definitions

"**Binders**" are non-volatile polymeric organic materials (resins) which form the surface film in coating applications.
"**Clear Topcoat**" is a final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film.
"**Coating**" is a material which is applied to a surface and forms a film in order to beautify and/or protect such surface.
"**Detailing or Touch-up Guns**" are small air spray equipment, including air brushes, that operate at no greater than 5 CFM air flow and no greater than 50 pounds per square inch gauge (Psig) air pressure as measured at the air inlet and are used to coat small products or portions of products.
"**Dip Coat**" is to submerse an object in a vat of coating material and drain off any excess coating.
"**Electrostatic Application**" is charging of atomized paint droplets for deposition by electrostatic attraction.
"**Exempt Solvents**" means compounds identified as exempt under the definition of "reactive organic compounds," Rule 102.
"**Filler**" is a preparation used to fill in the cracks, grain, etc. of wood before applying a coating.
"**Flow Coat**" is to coat an object by pouring a stream of coating over an object and draining off any excess coating.

"Grams of Reactive Organic Compound per Liter of Coating (Pounds of Reactive Organic Compound per Gallon of Coating), Less Water and Less Exempt Compounds" is the weight of Reactive Organic Compound per combined volume of Reactive Organic Compound and coating solids and can be calculated by the following equation:

$$Grams\ of\ ROC\ per\ liter\ of\ Coating,\ Less\ Water = \frac{(W_s - W_W - W_{es})}{V_m - V_W - V_{es}}$$

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

"Grams of Reactive Organic Compound per Liter of Material (Pounds of Reactive Organic Compound per Gallon of Material)" is the weight of Reactive Organic Compound per volume of material and can be calculated by the following equation:

$$Grams\ of\ ROC\ per\ liter\ of\ material = \frac{(W_s - W_W - W_{es})}{V_M}$$

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

"**High-Solids Stains**" are stains containing more than 1 pound of solids per gallon, and can include wiping stains, glazes, and opaque stains.

"**High-Volume Low Pressure (HVLP) Spray**" is to spray a coating by means of a gun that operates between 0.1 and 10.0 pounds per square inch gauge (Psig) air pressure.

"**Ink**" is a fluid that contains dyes and/or colorants and is used to mark, but not to protect surfaces.

"**Low-Solids Stains**" are stains containing 1 pound or less of solids per gallon.

"**Mold-Seal Coating**" is the initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

"**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.

"**Pigmented Coatings**" are opaque coatings which contain binders and colored pigments which are formulated to hide the wood surface, either as an undercoat or topcoat.

"**Repair Coating**" is a coating used to recoat portions of a product which has sustained mechanical damage to the coating following normal painting operations.

"**Roll Coater**" is a series of mechanical rollers that forms a thin coating film on the surface roller, which is applied to a substrate by moving the substrate underneath the roller.

"**Sealer**" is a coating, containing binders, which seals the wood prior to application of the subsequent coatings.

"**Simulated Wood Materials**" are materials, such as plastic, glass, metal, etc., that are made to give a wood-like appearance or are processed like a wood product.

"**Stencil Coating**" is an ink or a pigmented coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to wood products.

"**Toner**" is a wash coat which contains binders and dyes or pigments to add tint to a coated surface.

"**Touch-up Coating**" is a coating used to cover minor coating imperfections appearing after the main coating operation.

"**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.

"**Wash Coat**" is a coating that contains no more than 1.0 pound of solids per gallon, which is used to seal wood surfaces, prevent undesired staining, and control penetration.

"**Wood Products**" are those surface-coated room furnishings which include cabinets (kitchen, bath, and vanity), tables, chairs, beds, sofas, shutters, art objects, and any other coated objects made of solid wood, and/or wood composition, and/or made of simulated wood material used in combination with solid wood or wood composition.

D. Requirement - Reactive Organic Compound Limits

1. Except as provided in Section D.2, a person shall not apply to a wood product any coating which has a Reactive Organic Compound content, as applied, which exceeds the applicable limit specified in Attachment 1.

2. A person may use coatings with Reactive Organic Compound contents exceeding the levels specified in Attachment 1 provided that they use add-on exhaust control equipment which reduces uncontrolled emissions by at least 85 percent. Such control equipment must be approved in advance by the Control Officer.

E. Requirement - Transfer Efficiency

A person shall not apply wood products coatings subject to the provisions of this rule unless the coating is applied with properly operating equipment, according to proper operating procedures, and by the use of one of the following methods:

1. electrostatic application; or
2. flow coat; or
3. dip coat; or
4. high-volume, low-pressure (HVLP) spray; or
5. paint brush; or
6. hand roller; or
7. roll coater; or
8. detailing or touch-up guns; or
9. such other coating application methods as are demonstrated to the Control Officer to be capable of achieving at least 65 percent transfer efficiency, and for which written approval of the Control Officer has been obtained.

F. Requirement - Prohibition of Specification

No person shall solicit, require for use, or specify the application of a coating on a wood product if such use or application results in a violation of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating which is subject to the provisions of this Rule is to be applied to any wood product at any physical location within the District.

G. Closed Containers

All reactive organic compounds-containing materials, used or unused, including but not limited to surface coatings, thinners, cleanup solvents, or surface preparation materials shall be stored in closed containers and opened only during extraction or introduction of material for mixing, use or storage.

H. Test Methods

1. Reactive Organic Compound content and solids content of coating shall be determined using Environmental Protection Agency Reference Method 24 or an equivalent as determined by the Control Officer, Air Resources Board, and Environmental Protection Agency.

2. Compliance with Section E.9 shall be determined using a method which shall:

   a. be approved by the Environmental Protection Agency (e.g., South Coast Air Quality Management District Procedure for Testing Spray Equipment Transfer Efficiency); and

   b. simulate the transfer efficiency achieved during the actual operations; and

   c. have received written approval by the Control Officer, Air Resources Board and Environmental Protection Agency.

3. Destruction/treatment efficiency as required to determine compliance with Section D.2 shall be determined by using Environmental Protection Agency Method 25, Environmental Protection Agency Method 25a or a method determined to be equivalent and approved by the Control Officer, Air Resources Board and Environmental Protection Agency.

4. Capture efficiency as required to determine compliance with Section D.2 shall be determined according to the most recently adopted version of Environmental Protection Agency's technical document "Guidelines for Determining Capture Efficiency". The most recently adopted version as of this adoption is January 9, 1995

5. Emissions or Reactive Organic Compound contents determined to exceed any of the limits of this rule through the use of any of the above-referenced or equivalent test methods shall constitute a violation of this rule.

I. Recordkeeping

1. Operators of facilities subject to this Rule shall maintain a current listing of all materials in use at their facility. This listing shall include:

   a. material and manufacturer identification;
   b. coating type (i.e. clear topcoat, filler, high solid stains, etc.)
   c. specific mixing ratio used to arrive at maximum Reactive Organic Compound content,
   d. maximum Reactive Organic Compound content of coatings less water and exempt solvents as applied (including thinning solvents) or Reactive Organic Compound content of materials as applied which ever is applicable;

2. Operators of facilities that require a permit to operate pursuant to Rule 201 shall maintain on a monthly basis a record of the volume, reactive organic compounds content and resulting reactive organic compounds emissions of each reactive organic compounds-containing material used. Operators of facilities exempt from a permit to operate pursuant to Rule 202 shall maintain the records necessary to substantiate their exempt status.

3. Operators of facilities that use noncompliant coating materials with compliance achieved through the operation of emission control equipment shall maintain a current listing of all Reactive Organic Compound containing materials used at the facility as required in Section I.1. In addition these facilities shall maintain, on a daily basis, consumption data and the key operating parameters for emission control equipment.

4. A person using up to 20 gallons per calendar year of otherwise non-compliant coatings in accordance with the exemption in Section B.5 shall maintain purchase records of the total volume of coatings used under the exemption.

5. All records shall be retained and available for inspection by the Control Officer for 36 months.

Attachment 1

	ROC LIMITS (less water and exempt compounds)			
	On and After 7/1/97		On and After* 7/1/2005	
	(g/L)	(lb/gal)	(g/L)	(lb/gal)
Clear topcoats	550	4.6	275	2.3
Filler	500	4.2	275	2.3
High-Solid Stains				
Non-glaze	700	5.8	240	2.0
Glaze	700	5.8	240	2.0
Inks	500	4.2	500	4.2
Mold-Seal Coatings	750	6.3	750	6.3
Multi-Colored Coating	350	2.9	275	2.3
Pigmented Coating	350	2.9	275	2.3
Sealer	550	4.6	275	2.3
	ROC LIMITS			
Low-Solids Stain, Toner, or Washcoat	480	4.0	120	1.0

* These limits will be withheld from the State Implementation Plan until their actual implementation.

RULE 352. NATURAL GAS-FIRED FAN-TYPE CENTRAL FURNACES AND SMALL WATER HEATERS. (Adopted 9/16/1999, revised 10/20/2011)

A. Applicability

This rule applies to any person who manufactures, supplies, sells, offers for sale, installs, or solicits the installation of any natural gas-fired fan-type central furnaces or water heaters for use within the District.

B. Exemptions

The provisions of this rule shall not apply to:

1. Units installed in manufactured housing (mobile homes).

2. Water heaters used exclusively in recreational vehicles.

3. Water heaters with a rated heat input of 75,000 British thermal units per hour or greater.

4. Water heaters used exclusively to heat swimming pools or hot tubs.

5. Fan-type central furnaces and water heaters using fuels other than natural gas.

C. Definitions

"Fan-Type Central Furnace" means 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 has a rated heat input capacity of less than 175,000 British thermal units per hour and, for combination heating and cooling units, a rated cooling capacity of less than 65,000 British thermal units per hour.

"Heat Output (Central Furnace)" means the product obtained by multiplying the annual fuel utilization efficiency as defined by Section 10.1 of the Code of Federal Regulations (CFR), Title 10, Part 430, Subpart B, Appendix N, by the rated heat input capacity of the natural gas-fired central furnace.

"Heat Output (Water Heater)" means the product obtained by multiplying the recovery efficiency as defined by Section 6.1.3 of 10 CFR 430, Subpart B, Appendix E, by the rated heat input capacity of the water heater.

"Manufactured Home" has the same meaning as defined in 42 United States Code Section 5402 and California Health and Safety Code Section 18007.

"Natural Gas" means a mixture of gaseous hydrocarbons containing at least 80% methane by volume as determined by ASTM Method D1945-03(2010), "Standard Test Method for Analysis of Natural Gas by Gas Chromatography," ASTM International.

"Rated Cooling Capacity" means the cooling capacity specified on the nameplate of the cooling unit. Cooling capacity is the amount of heat energy the cooling system can displace in one hour (British thermal units per hour).

"Rated Heat Input Capacity" means the heat input capacity specified on the nameplate of the combustion unit. Heat input is the amount of energy consumed in one hour (British thermal units per hour).

"Water Heater" means a device that heats water at a thermostatically-controlled temperature of no more than 210 degrees Fahrenheit for delivery on demand.

D. Requirements – General

1. Except as specified in Section D.2, no person shall supply, sell, offer for sale, install, or solicit the installation of any natural gas-fired fan-type central furnace or water heater for use within the District:

    a. With emissions of oxides of nitrogen in excess of 40 nanograms per joule (0.093 pounds of oxides of nitrogen per million British thermal units) of heat output, or 55 parts per million at 3.00 percent stack gas oxygen by volume on a dry basis, and

    b. That is not certified in accordance with Section E.

2. After July 1, 2012, no person shall supply, sell, offer for sale, install, or solicit the installation of any natural gas-fired water heater for use within the District:

    a. With emissions of oxides of nitrogen in excess of 10 nanograms per joule (0.023 pounds of oxides of nitrogen per million British thermal units) of heat output, or 15 parts per million at 3.00 percent stack gas oxygen by volume on a dry basis, and

    b. That is not certified in accordance with Section E.

E. Requirements – Certification and Identification

1. Each appliance model shall be tested in accordance with Section F. In lieu of such certification tests, the District will accept certifications issued under South Coast Air Quality Management District Rule 1111 or Rule 1121.

2. The central furnace manufacturer and water heater manufacturer shall display the model number of the appliance complying with Section D on the shipping carton and the rating plate of the appliance.

3. Upon request of the Control Officer, each manufacturer shall submit to the District a statement confirming the appliance subject to this rule is in compliance with the emission limit specified in Section D. The statement shall be signed, dated, and shall attest to the accuracy of all information. The statement shall include:

    a. Name and address of manufacturer, and

    b. Brand name, and

    c. Model number, as it appears on the appliance rating plate, and

    d. Heat input rating, British thermal units per hour, and

    e. A source test report verifying compliance with the applicable emission limits in Section D.1.a or D.2.a.

F. Monitoring – Source Testing

1. During testing, each tested central furnace shall be operated in accordance with the procedures specified in 10 CFR 430, Subpart B, Appendix N.

2. During testing, each water heater shall be operated in accordance with Section 2.4 of American National Standards ANSI Z21.10.1-1998 at normal pressure, input rates, and with a five-foot stack

installed during the oxides of nitrogen emissions tests.

3. Compliance with the oxides of nitrogen emission requirement in D shall be determined using Air Resources Board Method 100, or Environmental Protection Agency Methods 7E and 3A.

4. The following calculation shall be used to determine the nanograms of oxides of nitrogen per joule of heat output:

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

where:

4.566×10^{4} = unit conversion factor [parts per million (ppm) to nanograms and British thermal units to joules]

N = nanograms of emitted oxides of nitrogen per joule of heat output

P = concentration of oxides of nitrogen in flue gas in ppm by volume

U = dry volume percent of CO_2 in flue gas necessary for stoichiometric combustion

H = gross heating value of fuel, British thermal units per cubic feet at 60°F and 30 inches of mercury

C = measured dry volume percent of CO_2 in the flue gas, assuming complete combustion and no carbon monoxide present

E = efficiency, annual fuel utilization efficiency for natural gas-fired central furnaces or recovery efficiency for water heaters as referenced in the Section C definitions for *heat output (central furnace)* or *heat output (water heater)*.

G. Rule Effective Date

This rule is effective on October 20, 2011.

RULE 353 ADHESIVES AND SEALANTS. (Adopted 8/19/1999, revised 06/21/2012)

A. Applicability

This rule is applicable to any person who supplies, sells, offers for sale, distributes, manufactures, solicits the application of, or uses any adhesive product, sealant product, or associated solvent for use within the District.

B. Exemptions

1. This rule shall not apply to adhesives and associated solvents used in tire repair operations, provided a label on the adhesive used states "For Tire Repair Only."

2. This rule shall not apply to adhesives and associated solvents used in the assembly and manufacturing of undersea-based weapon systems.

3. Provisions of Sections D, E, G.1, and H, shall not apply to any adhesive products, sealant products, and any associated solvent used in any laboratory tests or analyses, including quality assurance or quality control applications, bench scale projects, or short-term (less than 2 years) research and development projects. To qualify for this exemption, the following records shall be maintained:

    a. A list of all such materials used, which at a minimum includes the manufacturer's identification, the product category of the material or type of application, and the reactive organic compound content of each material.

    b. For each short-term research and development project, the project description, date it commenced, and date it concluded.

    c. Such records shall be retained in accordance with the provisions of Section O.6.

4. This rule shall not apply to solvent welding operations and associated cleaning solvents used in the manufacturing of medical devices, such as, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheotomy tubes, blood oxygenators, and cardiatory reservoirs.

5. This rule shall not apply to adhesive product and sealant product coating operations and associated solvent use that are subject to any of the following District rules.

    a. Rule 337, Surface Coating of Aerospace Vehicles and Components.

    b. Rule 354, Graphic Arts.

6. This rule shall not apply to adhesive products and sealant products that contain less than 20 grams of reactive organic compound per liter (0.17 pounds of reactive organic compound per gallon) of adhesive or sealant, less water and less exempt compounds, as applied.

7. Except for Section J, the rule shall not apply to cyanoacrylate adhesives.

8. Except as otherwise specified in Section B.10.c, this rule shall not apply to adhesive products and sealant products, which are sold or supplied by the manufacturer or suppliers in containers of 16 fluid ounces or less.

9. Except for Sections J, K, L, M, O.3, and O.6, this rule shall not apply to any stationary source that has total reactive organic compound emissions less than 200 pounds per calendar year from adhesive products sealant products, associated solvents, and strippers. Associated solvents and

strippers used for operations that are exempt per Sections B.1 - B.4, B.11, and B.13 shall not be included in calculating the total reactive organic compound emissions under this exemption. Any person claiming this exemption shall record and maintain operational and emission records that document compliance. At a minimum, when using compliant materials, the records shall be kept on a monthly basis; and when using noncompliant materials, the records shall be kept on a daily basis. All records kept to substantiate the exemption claim shall be retained in accordance with the provisions of Section O.6.

10. The sales prohibition in Sections K.1 and K.2 of this rule shall not apply to:

    a. Any supplier or seller of any adhesive product (including aerosol adhesive), or sealant product where the supplier or seller:

        1) Ships the product outside of Santa Barbara County for use outside of Santa Barbara County.

        2) Provides product to a user who has installed a District permitted reactive organic compound add-on control device.

    b. Any manufacturer of any adhesive product (including aerosol adhesive) or sealant product if the manufacturer has provided the maximum volatile organic compound content per Section L and if:

        1) The product was not sold directly to a user or a sales outlet located in Santa Barbara County, or

        2) The product was sold to an independent distributor that is not a subsidiary of, or under the direct control of, the manufacturer.

    c. The sale of any adhesive product (including aerosol adhesive) or sealant product, except plastic cement welding adhesives, if:

        1) The product is sold in any container(s) having a capacity of 16 fluid ounces or less (net volume) or one pound or less (net weight); and

        2) The total net weight or volume of two or more containers packaged together must be equal to or less than one pound or 16 fluid ounces, respectively, to qualify for this exemption.

11. This rule shall not apply to any cleaning performed with a solvent (including emulsions) that contains two percent by weight or less of each of the following:

    a. Reactive organic compounds, and

    b. Toxic air contaminants (as determined by generic solvent data, solvent manufacturer's composition data or by a gas chromatography test and a mass spectrometry test).

    c. Any person claiming this exemption shall maintain the records specified in Sections O.1.a and O.1.f in a manner consistent with Section O.6 and make them available for review.

12. This rule shall not apply to adhesive products (including aerosol adhesives) and sealant products subject to the Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, section 94507 et seq.

13. Provisions of Sections G.1, H, and R shall not apply to solvents and strippers used on any of the following:

a. Cotton swabs when removing cottonseed oil before the cleaning of high-precision optics;

b. Paper gaskets;

c. Clutch assemblies where rubber is bonded to metal by means of an adhesive;

d. Cleaning of semiconductor and microelectromechanical devices undergoing manufacturing processes involving thin film deposition, vacuum deposition, dry etching, or metal lift-off operations; including any maintenance activities associated with such operations;

e. Electronic components;

f. Cleaning of encasements, including decoy shells or box casings, for electronic components that have a total surface area that is less than 2 square feet;

g. Parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

h. Transparencies, polycarbonate, or glass substrates;

i. Solar cells, coated optics, laser hardware, scientific instruments, high-precision optics, telescopes, microscopes, avionic equipment, and military fluid systems;

j. Personal protective equipment.

C. Definitions

See Rule 102, Definitions, for definitions not limited to this rule. For purposes of this rule, the following definitions shall apply:

"Acrylonitrile-Butadiene-Styrene (ABS) Welding Adhesive" means any adhesive intended by the manufacturer to weld ABS pipe. ABS pipe is made by reacting monomers of acrylonitrile, butadiene, and styrene and is normally identified with an ABS marking.

"Adhesive" means any substance that is used to bond one surface to another surface by attachment or fused union.

"Adhesive Primer" means any product intended by the manufacturer to be applied to a substrate, prior to the application of an adhesive, to provide a bonding surface.

"Adhesive Primer for Plastic" means a material applied to a plastic substrate before applying an adhesive in order to obtain better adhesion.

"Adhesive Product" means any adhesive, glue, cement, mastic, adhesive primer, adhesive primer for plastics, and any other adhesive primer. Adhesive products are a type of coating.

"Adhesive Solid" means the nonvolatile portion of an adhesive that remains after heating a sample of the material at 110 degrees Celsius for one hour.

"Aerosol Adhesive" means an adhesive packaged as an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for hand-held application without the need for ancillary hoses or spray equipment. "Aerosol adhesives" include "special purpose spray adhesives," "mist spray

adhesives," and "web spray adhesives" as defined in the Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, section 94507 et seq.

"Airless Spray" means a spray method in which a pump forces the adhesive through an atomizing nozzle at high pressure (1,000 to 6,000 pounds per square inch).

"Architectural Sealant/Primer" means any sealant or sealant primer intended by the manufacturer to be applied to stationary structures, including mobile homes, and their appurtenances. Appurtenances to an architectural structure include, but are not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts, and windows.

"Associated Solvent" means any solvent used in a solvent cleaning machine or for solvent cleaning performed in association with the application of any adhesive product or sealant product.

"Automotive Glass Adhesive Primer" means any adhesive primer intended by the manufacturer to be applied to automotive glass prior to installation with an adhesive/sealant. This primer improves adhesion to the pinch weld and blocks ultraviolet light.

"Bench Scale Project" means a project (other than at a research and development facility) that is operated on a small scale, such as one capable of being located on a laboratory bench top.

"Ceramic Tile" means a ceramic surfacing unit made from clay or a mixture of clay and other materials.

"Ceramic Tile Installation Adhesive" means any adhesive intended by the manufacturer for the installation of ceramic tiles.

"Chlorinated Polyvinyl Chloride (CPVC) Welding Adhesive" means any adhesive intended by the manufacturer for the welding of CPVC plastic pipe. CPVC plastic is a polymer of the monomer that contains 67 percent chlorine and is normally identified with a CPVC marking.

"Coating" means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, adhesive products, paints, varnishes, sealant products, and stains.

"Compliant Material" means any adhesive product, sealant product, stripper, or solvent that has a reactive organic compound content or composite partial pressure that complies with the applicable limit in Section D, E, F, G, H, or R.

"Computer Diskette Jacket Manufacturing Adhesive" means any adhesive intended by the manufacturer to glue the fold-over flaps to the body of a vinyl computer diskette jacket.

"Contact Bond Adhesive" or "Contact Adhesive" means any adhesive intended by the manufacturer for application to both surfaces to be bonded together, which is allowed to dry before the two surfaces are placed in contact with each other, forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. Contact adhesive does not include rubber cements that are primarily intended for use on paper substrates. Contact adhesive also does not include vulcanizing fluids that are designed and labeled for tire repair only.

"Contact Bond Adhesive-Specialty Substrates" or "Specialty Contact Adhesive" means any contact adhesive that is intended by the manufacturer to be used for the bonding of nonporous substrates to each other, the bonding of decorative laminate in post-forming application, the bonding of decorative laminate to metal, melamine-covered board, or curved surfaces, or the bonding of any substrate to metal, rubber, rigid plastic, or wood veneer not exceeding 1/16 inch in thickness.

"Control" means the reduction, by destruction or removal, of the amount of affected pollutants in a gas stream prior to discharge to the atmosphere.

"Control System" means any combination of pollutant capture system(s) and control device(s) used to reduce discharge to the atmosphere of reactive organic compound or toxic air contaminant emissions generated by a regulated operation.

"Cove Base Installation Adhesive" means any adhesive intended by the manufacturer for the installation of cove base (or wall base), which is generally made of vinyl or rubber, on a wall or vertical surface at floor level.

"Cyanoacrylate Adhesive" means an adhesive with a cyanoacrylate content of at least 95 percent by weight.

"Dip Coat Application" means any process in which a substrate is immersed in a solution (or dispersion) containing the coating material, and then withdrawn.

"Drywall Installation" means the installation of gypsum drywall to studs or solid surfaces using an adhesive formulated for that purpose.

"Electrodeposition" means the application of a coating using a water-based electrochemical bath process. The component being coated is immersed in a bath of the coating. An electric potential is applied between the component and an oppositely charged electrode hanging in the bath. The electric potential causes the ionized coating to be electrically attracted, migrated, and deposited on the component being coated.

"Fiberglass" means a fiber made from glass and similar in appearance to wool or cotton fiber.

"Flexible Vinyl" means nonrigid polyvinyl chloride plastic with at least five percent, by weight, of plasticizer content. A plasticizer means a material, such as a high boiling point organic solvent, that is incorporated into an adhesive to increase its flexibility, workability, or distensibility, and may be determined using ASTM Method E260-96(2006), "Standard Practice for Packed Column Gas Chromatography," ASTM International, or from product formulation data.

"Flow Coat Application" means any coating application system, with no air supplied to the nozzle, where paint flows over the part and the excess coating drains back into the collection system.

"Foam" means a rigid or spongy cellular mass with gas bubbles dispersed throughout.

"Glue" means a hard gelatin obtained from hides, tendons, cartilage, bones, etc., of animals. Through general use, the term "glue" is synonymous with the term "adhesive."

"Grams of Reactive Organic Compound per Liter of Adhesive or Sealant, Less Water and Less Exempt Compounds" means the weight of reactive organic compound per combined volume of reactive organic compound and adhesive or sealant solids, and can be calculated by the following equation:

$$\textit{Grams of reactive organic compounds per liter of adhesive or sealant, less water and less exempt compounds} = \frac{W_s - W_w - W_e}{V_m - V_w - V_e}$$

Where:

W_s = Weight of volatile compounds in grams
W_w = Weight of water in grams
W_e = Weight of exempt compounds in grams
V_m = Volume of material in liters
V_w = Volume of water in liters
V_e = Volume of exempt compounds in liters

For adhesives or sealants that contain reactive diluents, the reactive organic compound content of the adhesive or sealant is determined after curing. The grams of reactive organic compound per liter of adhesive or sealant shall be calculated by the following equation:

$$\text{Grams of reactive organic compounds per liter of adhesive or sealant, less water and less exempt compounds} = \frac{W_{rs} - W_{rw} - W_{re}}{V_{rm} - V_{rw} - V_{re}}$$

Where:

W_{rs} = Weight of volatile compounds not consumed during curing in grams
W_{rw} = Weight of water not consumed during curing in grams
W_{re} = Weight of exempt compounds not consumed during curing in grams
V_{rm} = Volume of material not consumed during curing in liters
V_{rw} = Volume of water not consumed during curing in liters
V_{re} = Volume of exempt compounds not consumed during curing in liters

"Hand Application Method" means the application of a surface coating by manually held non-mechanically operated equipment. Such equipment includes paint brush, hand-roller, trowel, spatula, dauber, rag or sponge.

"Indoor Floor Covering Installation Adhesive" means any adhesive intended by the manufacturer for the installation of wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll, or artificial grass. Ceramic tile installation and the installation of perimeter bonded sheet flooring with vinyl backing onto a non-porous substrate, such as flexible vinyl are excluded from this category.

"Laminate" means a product made by bonding together two or more layers of material.

"Low-Solids Adhesive, Sealant, or Primer" means any product that contains 120 grams or less of solids per liter of material.

"Marine Deck Sealant/Sealant Primer" means any sealant or sealant primer intended by the manufacturer to be applied to wooden marine decks.

"Metal to Urethane/Rubber Molding or Casting Adhesive" means any adhesive intended by the manufacturer to bond metal to high density or elastomeric urethane or molded rubber materials, in heater molding or casting processes, to fabricate products such as rollers for computer printers or other paper handling equipment.

"Multipurpose Construction Adhesive" means any adhesive intended by the manufacturer for the installation or repair of various construction materials, including but not limited to drywall, subfloor, panel, fiberglass reinforced plastic (FRP), ceiling tile, and acoustical tile.

"Noncompliant Material" means any adhesive product, sealant product, stripper, or solvent that has a reactive organic compound content or composite partial pressure that does not comply with the applicable limit in Section D, E, F, G, H, or R.

"Nonmembrane Roof Installation/Repair Adhesive" means any adhesive intended by the manufacturer for the installation or repair of nonmembrane roofs and that is not intended for the installation of prefabricated single-ply flexible roofing membrane. This category includes plastic or asphalt roof cement, asphalt roof coatings, and cold application cement.

"Outdoor Floor Covering Installation Adhesive" means any adhesive intended by the manufacturer for the installation of floor covering that is not in an enclosure and means exposed to ambient weather conditions during normal use.

"Panel Installation" means the installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, and similar pre-decorated or non-decorated panels to studs or solid surfaces using an adhesive formulated for that purpose.

"Percent Reactive Organic Compound By Weight" means the ratio of the weight of the reactive organic compound to the weight of the material, expressed as a percentage of reactive organic compound by weight. The percent reactive organic compound by weight can be calculated as follows:

$$\textit{Percent reactive organic compound by weight} = \left[\frac{W_v}{W}\right] \text{x}100$$

Where: W_v = weight of reactive organic compounds in grams
W = weight of material in grams

"Perimeter Bonded Sheet Flooring Installation" means the installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive design to be applied only to a strip of up to four inches wide around the perimeter of the sheet flooring.

"Plastic Cement Welding Adhesive Primer" means any primer intended by the manufacturer to prepare plastic substrates prior to bonding or welding.

"Plastic Foam" means any foam constructed of plastics.

"Plastics" mean various synthetic materials chemically formed by the polymerization of organic (carbon-based) substances. Plastics are usually compounded with modifiers, extenders, and/or reinforcers. They are used to produce pipe, solid sheet, film, or bulk products.

"Polyurethane Foams" mean plastic foams, as defined in "Whittington's Dictionary of Plastics," page 329, and may be either rigid or flexible.

"Polyvinyl Chloride (PVC) Plastic" means a polymer of the chlorinated vinyl monomer that contains 57 percent chlorine and is normally identified with a PVC marking.

"Polyvinyl Chloride (PVC) Welding Adhesive" means any adhesive intended by the manufacturer for the welding of PVC plastic pipe.

"Porous Material" means a substance that has tiny openings, often microscopic, in which fluids may be absorbed or discharged. Such materials include but are not limited to wood, paper, corrugated paperboard, and plastic foam.

"Propellant" means a fluid under pressure that expels the contents of a container when a valve means opened.

"Reactive Diluent" means a liquid which is a reactive organic compound during application and one in which, through chemical and/or physical reactions, such as polymerization, 20 percent or more of the reactive organic compound becomes an integral part of a finished material.

"Roadway Sealant" means any sealant intended by the manufacturer to be applied to public streets, highways, and other surfaces, including but not limited to curbs, berms, driveways, and parking lots.

"Rubber" includes any natural or manmade rubber substrate, including but not limited to, styrene-butadiene rubber (SBR), polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene (CSM), and ethylene propylene diene terpolymer (EPDM).

"Sealant" means any material with adhesive properties that is formulated primarily to fill, seal, waterproof, or weatherproof gaps or joints between two surfaces. Sealants include caulks.

"Sealant Primer" means any product intended by the manufacturer to be applied to a substrate, prior to the application of a sealant, to enhance the bonding surface.

"Sealant Product" means any sealant and sealant primer. Sealant products are a type of coating.

"Sealant Solid" means the nonvolatile portion of a sealant that remains after heating a sample of the material at 110 degrees Celsius for one hour.

"Sheet-Applied Rubber Installation" means sheet rubber lining applied to the interior walls of stationary tanks and rail cars.

"Single-Ply Roof Membrane" means single sheets of rubber, normally EPDM (ethylene-propylene diene terpolymer), that are applied in a single layer to a building roof (normally a flat roof).

"Single-Ply Roof Membrane Adhesive" means any adhesive intended by the manufacturer for the installation or repair of single-ply roof membrane. Installation includes, as a minimum, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes, and ducts that protrude through the membrane. Repair includes gluing the edges of tears together, attaching a patch over a hole, and reapplying flashings to vents, pipes, or ducts installed through the membrane.

"Single-Ply Roof Membrane Adhesive Primer" means any primer intended by the manufacturer to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

"Single-Ply Roof Membrane Sealant" means any sealant to be used for the installation or repair of single-ply roof membrane to the edge of the roof and applying flashings to vents, pipes, or ducts that protrude through the membrane. Repair includes, but is not limited to gluing the edges of tears together, attaching a patch to a hole, and reapplying flashings to vents, pipes, or ducts installed through the membrane.

"Solvent" means any liquid containing any reactive organic compound or any toxic air contaminant, which is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent, drying agent, preservative, or other similar uses.

"Solvent Bonding" has the same meaning as "solvent welding."

"Solvent Cleaning" means any activity, operation, or process (including, but not limited to, surface preparation, cleanup, or wipe cleaning) performed outside of a solvent cleaning machine, that uses solvent to remove uncured adhesives, uncured coatings, uncured inks, uncured polyester resin material, uncured sealant, or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment, and general work areas. Cleaning spray equipment used for the application of coating, adhesive, ink, polyester resin material, or sealant is also considered to be solvent cleaning irrespective of the spray material being cured.

"Solvent Cleaning Machine" means any device or piece of equipment that uses solvent liquid or vapor to remove soils, moisture, or other contaminants from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch cold, batch vapor, in-line cold, in-line vapor, remote reservoir, and gas-path solvent cleaners. Buckets, pails, and beakers with capacities of 3.785 liters (1.00 gallon) or less are not considered solvent cleaning machines. However, the use of such a container or similar containers (e.g., hand-held spray bottles) with a liquid solvent for cleaning is considered to be solvent cleaning. Any device or piece of equipment used exclusively for stripping shall not be considered to be a solvent cleaning machine.

"Solvent Welding" means the softening of the surfaces of two substrates by wetting them with solvents and/or adhesives, and joining them together with a chemical and/or physical reaction(s) to form a fused union.

"Stripper" means any liquid that is applied to a surface to remove cured or dried coatings such as primers, adhesives (e.g., debonding or unglueing), topcoats, and temporary protective coatings.

"Structural Glazing Adhesive" means any adhesive intended by the manufacturer to adhere glass, ceramic, metal, stone, or composite panels to exterior building frames.

"Subfloor Installation" means the installation of subflooring material over floor joists, including the construction of any load bearing joists. Subflooring means covered by a finish surface material.

"Surface Preparation Solvent" means a solvent used in the cleaning of a substrate to remove dirt, oil, and other contaminants (e.g., uncured coatings). This surface cleaning is typically done prior to the application of primers, adhesives, or sealants.

"Thin Metal Laminating Adhesive" means any adhesive intended by the manufacturer to bond multiple layers of metal to metal or metal to plastic in the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 mil (0.00025 inch, 0.00635 millimeter).

"Tire Repair" means the expanding of a hole, tear, fissure, or blemish in a tire casing by grinding or gouging, applying adhesive, and filling the hole or crevice with rubber.

"Tire Retread Adhesive" means any adhesive intended by the manufacturer to be applied to the back of precure tread rubber and to the casing and cushion rubber. It may also be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

"Traffic Marking Tape" means preformed reflective film intended by the manufacturer to be applied to public streets, highways, and other surfaces, including but not limited to curbs, berms, driveways, and parking lots.

"Traffic Marking Tape Adhesive Primer" means any primer intended by the manufacturer to be applied to surfaces prior to installation of traffic marking tape.

"Viscosity" means the internal friction of a liquid that makes it resistant to flow.

"Volatile Organic Compound (VOC)" has the same meaning as "reactive organic compound" as defined in Rule 102, Definitions. Tertiary-butyl acetate (also known as t-butyl acetate or tBAc) shall be considered exempt as a reactive organic compound only for purposes of reactive organic compound emissions limitations or reactive organic compound content requirements and will continue to be a reactive organic compound for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to reactive organic compounds.

"Waterproof Resorcinol Glue" means a two-part resorcinol-resin-based adhesive designed for applications where the bond line must be resistant to conditions of continuous immersion in fresh or salt water.

"Wood Flooring Installation" means the installation of a wood floor surface, which may be in the form of parquet tiles, planks, or strip-wood.

"Wood Parquet Flooring" means wood flooring in tile form constructed of smaller pieces of wood which are joined together in a pattern by the maker to form the tile.

"Wood Plank Flooring" means solid or laminated wood in plank form.

D. Requirements – Reactive Organic Compound Limits for Specific Applications of Adhesive Products or Sealant Products

Except as provided in Sections E and I, no person shall apply nonaerosol adhesive products or sealant products that are listed under the Table 353-1 product categories and that have a reactive organic compound content (grams per liter [g/l], less water and less exempt compounds) in excess of the Table 353-1 limits. For low-solids adhesives, sealants, or primers, the reactive organic compound content is based on a grams of reactive organic compound per liter of material basis.

TABLE 353-1. REACTIVE ORGANIC COMPOUND LIMITS FOR SPECIFIC APPLICATIONS

TYPE	PRODUCT CATEGORY	ROC LIMITS			
		On and After 01/01/2000		On and After 06/21/2013	
		(g/l)	(lb/gal)	(g/l)	(lb/gal)
1. Adhesives					
	ABS welding	400	3.3	400	3.3
	Ceramic tile installation	130	1.1	130	1.1
	Computer diskette jacket manufacturing	850	7.1	850	7.1
	Contact bond	540	4.5	250	2.1
	Contact bond-specialty substrates	540	4.5	400	3.3
	Cove base installation	150	1.3	150	1.3
	CPVC welding	490	4.1	490	4.1
	Indoor floor covering installation (except ceramic tile installation)	150	1.3	150	1.3
	Metal to urethane/rubber molding or casting	850	7.1	250	2.1
	Multipurpose construction (except cove base installation)	200	1.7	70	0.6
	Nonmembrane roof installation/repair	300	2.5	300	2.5
	Other plastic cement welding	510	4.3	250	2.1
	Outdoor floor covering installation	250	2.1	250	2.1
	Perimeter bonded sheet vinyl flooring installation	660	5.5	660	5.5
	PVC welding	510	4.3	500	4.2
	Sheet-applied rubber installation	850	7.1	850	7.1
	Single-ply roof membrane installation/repair	250	2.1	250	2.1
	Structural glazing	100	0.8	100	0.8
	Thin metal laminating	780	6.5	780	6.5
	Tire retread	100	0.8	100	0.8
	Traffic marking tape	150	1.3	150	1.3
	Waterproof resorcinol glue	170	1.4	170	1.4
2. Sealants					
	Architectural	250	2.1	250	2.1
	Marine deck	760	6.3	760	6.3
	Nonmembrane roof installation/repair	300	2.5	300	2.5
	Roadway	250	2.1	250	2.1
	Single-ply roof membrane	450	3.8	450	3.8
	Other	420	3.5	420	3.5

TABLE 353-1. REACTIVE ORGANIC COMPOUND LIMITS FOR SPECIFIC APPLICATIONS

TYPE	PRODUCT CATEGORY	ROC LIMITS			
		On and After 01/01/2000		On and After 06/21/2013	
		(g/l)	(lb/gal)	(g/l)	(lb/gal)
3. Adhesive Primers					
	Automotive glass	700	5.8	700	5.8
	Plastic cement welding	650	5.4	650	5.4
	Single-ply roof membrane	250	2.1	250	2.1
	Traffic marking tape	150	1.3	150	1.3
	Other	250	2.1	250	2.1
4. Sealant Primers					
	Architectural – non porous	250	2.1	250	2.1
	Architectural – porous	775	6.5	775	6.5
	Marine deck	760	6.3	760	6.3
	Other	750	6.3	750	6.3

E. Requirements – Reactive Organic Compound Limits for Nonspecific Applications of Adhesive Products or Sealant Products onto Substrates

Except as provided below and in Section I, no person shall apply nonaerosol adhesive products or sealant products to a substrate that have a reactive organic compound content (grams per liter, less water and less exempt compounds) in excess of the Table 353-2 limits. For low-solids adhesives, sealants, or primers, the reactive organic compound content is based on a grams of reactive organic compound per liter of material basis.

The limit for a nonspecific application onto a substrate where an operator:

1. Bonds dissimilar substrates together, is the applicable substrate category with the highest reactive organic compound content.

2. Uses an adhesive or sealant listed in Table 353-1, is the limit specified in Table 353-1 for that particular product category.

TABLE 353-2. REACTIVE ORGANIC COMPOUND LIMITS FOR NONSPECIFIC APPLICATIONS OF ADHESIVE PRODUCTS AND SEALANT PRODUCTS ONTO SUBSTRATES

SUBSTRATE/APPLICATION	ROC LIMITS			
	On and After 08/19/1999		On and After 06/21/2013	
	(g/l)	(lb/gal)	(g/l)	(lb/gal)
Flexible vinyl	250	2.1	250	2.1
Fiberglass	200	1.7	80	0.7
Metal	30	0.3	30	0.3
Porous material	120	1.0	50	0.4
Rubber	250	2.1	250	2.1
Other substrates	250	2.1	250	2.1

F. Requirements – Aerosol Adhesives Reactive Organic Compound Limit

Except as provided in Section I, no person shall use any aerosol adhesive unless the reactive organic compound content complies with the Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, section 94507 et seq.

G. Requirement – Cleanup Solvent and/or Cleanup Method

1. Before June 21, 2013, except as provided in Section I, no person shall use materials containing reactive organic compound for the removal of uncured adhesive products or uncured sealant products from surfaces, other than spray application equipment, unless the reactive organic compound composite partial pressure of the solvent used is less than 45 millimeters of mercury at 20 degrees Celsius.

   Effective June 21, 2013, except as provided in Sections G.2 and I, no person shall use any solvent containing more than 25 grams of reactive organic compound (0.21 pound of reactive organic compound per gallon) per liter of material for the removal of uncured adhesive products or uncured sealant products from surfaces.

2. Spray application equipment: Before June 21, 2013, except as provided in Section I, either one of the following shall be used for cleaning, flushing or soaking of filters, flushing lines, pipes, pumps, and other parts of the application equipment:

   a. An enclosed cleaning system, or an equivalent cleaning system as determined by the test method referenced in Section N.8, or

   b. A solvent with a content of 70 grams of reactive organic compound per liter (0.6 pound per gallon) of material or less. Parts containing dried adhesive may be soaked in an organic solvent as long as the reactive organic compound composite partial pressure of the solvent is 9.5 millimeters of mercury at 20 degrees Celsius or less and is kept in a closed container, which shall be closed except when depositing or removing parts or materials from the container.

   Effective June 21, 2013, except as provided in Section I, any person cleaning spray application equipment with a solvent containing more than 25 grams of reactive organic compound per liter (0.21 pound of reactive organic compound per gallon) of material shall use an enclosed cleaning system, or equipment that is proven to the satisfaction of the Control Officer to be equally effective as an enclosed cleaning system at controlling emissions. "Equal effectiveness" of an alternative cleaning system shall be determined by the test method referenced in Section N.8. If an enclosed cleaning system is used, it shall totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures, and it shall be used according to the manufacturer's recommendations and be closed when not in use.

H. Requirements – Surface Preparation Solvent

Before June 21, 2013, except as provided in Section I and for single-ply roofing, no person shall use materials containing reactive organic compounds for surface preparation unless the content of the solvent is 70 grams of reactive organic compound per liter (0.6 pound per gallon) of material or less. For single-ply roofing surface preparation solvent, the reactive organic compound composite partial pressure shall not exceed 45 millimeters of mercury at 20 degrees Celsius.

Effective June 21, 2013, except as provided in Section I, no person shall use any solvent containing more than 25 grams of reactive organic compound per liter (0.21 pound of reactive organic compound per gallon) of material for surface preparation.

I. Requirements – Alternative Compliance Provision

A person may elect to use an add-on control system as an alternative to meeting the requirements of Sections D, E, F, G, H, Q, and R , provided all of the applicable requirements below are met. Any person choosing to install such control system shall obtain an Authority to Construct from the District prior to installation.

1. The overall efficiency (the capture efficiency multiplied by the control device efficiency) of the total system shall be at least 85.0 percent, by weight. Alternatively, the control device reactive organic compound exhaust concentration shall not exceed 10 parts per million by volume as propane or other limit approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

2. Combustion temperature shall be continuously monitored when operating a thermal incinerator.

3. Inlet and exhaust gas temperatures shall be continuously monitored when operating a catalytic incinerator.

4. Control device efficiency shall be continuously monitored when operating a carbon adsorber or control device other than a thermal or catalytic incinerator.

5. Compliance through the use of an emission control system shall not result in affected pollutant emissions in excess of the affected pollutant emissions that would result from compliance with Sections D, E, F, G, H, Q, and R.

J. Requirements – General Operating

Any person who owns, operates, or uses any application equipment to apply any adhesive products or sealant products shall ensure the coating operation and any solvent cleaning associated with such operation meets the following requirements:

1. All reactive organic compound-containing materials, used or unused, including, but not limited to, adhesive products, sealant products, and reactive organic compound-laden cloth or paper used in solvent cleaning and stripping of cured adhesives, shall be stored and disposed of in nonabsorbent and nonleaking containers equipped with tight-fitting covers. All covers shall be in place unless adding material to or removing material from the containers, the containers are empty, or doing maintenance/inspection of the containers.

2. All application equipment, ventilation system, and emission control equipment shall be installed, operated, and maintained consistent with the manufacturer's specifications.

3. Waste solvent, waste solvent residues, and any other waste material that contains reactive organic compounds shall be disposed of by one of the following methods:

    a. A commercial waste solvent reclamation service licensed by the State of California.

    b. At a facility that is federally or state licensed to treat, store or dispose of such waste.

    c. Recycling in conformance with Section 25143.2 of the California Health and Safety Code.

4. All covers, valves, drain plugs, and other closure devices designed to reduce evaporation of reactive organic compound-containing materials shall not be removed or opened except to process work or to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers or other closure devices.

5. Any reactive organic compound-containing material spills shall be wiped up immediately and the used absorbent material (e.g., cloth, paper, sand, sawdust, etc.) shall be stored in closed containers that are handled in accordance with Section J.1.

6. The handling and transfer of coatings, strippers, and cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent coatings, strippers, and cleaning solvents shall be conducted in such a manner that minimizes spills.

7. Containers used to store adhesive products, sealant products, solvent, or any waste material that contains reactive organic compounds subject to this rule shall be marked or clearly labeled indicating the name of the material they contain.

K. Requirements – Prohibition of Sales

1. Except as provided in Section B.10, no person shall supply, sell, or offer for sale any nonaerosol adhesive product or sealant product that, at the time of sale, is listed in Section D Table 353-1 and exceeds the corresponding reactive organic compound limits therein.

2. Except as provided in Section B.10 of this rule, no person shall supply, sell, or offer for sale, any aerosol adhesive unless, at the time of sale, the provisions of the Air Resources Board consumer product regulation, found in Title 17 of the California Code of Regulations, section 94507 et seq., are met.

L. Requirements – Manufacturer Compliance Statement and Labeling

The manufacturer of any adhesive products or sealant products subject to this rule shall include a designation of the maximum reactive organic compound or volatile organic compound content as supplied, expressed in grams per liter or pounds per gallon excluding water and exempt compounds from the appropriate test method, on labels and data sheets. This designation shall include recommendations regarding thinning, reducing, or mixing with any other reactive organic compound- or volatile organic compound-containing material. This information shall include the maximum reactive organic compound or volatile organic compound content on an as-applied basis when used in accordance with the manufacturer's recommendations.

M. Requirements – Prohibition of Specification

No person shall solicit, require for use, or specify the application of any adhesive products, sealant products, or associated solvent if such use or application results in a violation of the provisions of this rule. This prohibition shall apply to all written or oral contracts.

N. Requirements – Compliance Provisions and Test Methods

1. Except as specified in Section N.4, nonaerosol adhesive products, sealant products, and associated solvents reactive organic compound content shall be determined using Environmental Protection Agency Reference Method 24, its constituent methods, or an equivalent method approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer. The reactive organic compound content of materials containing 50 grams of reactive organic compound per liter or less shall be determined by the South Coast Air Quality Management District Method 313-91, **"**Determination of Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry,**"** June 1993, or any other test methods approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

2. Exempt compounds shall be determined using ASTM D4457-1991, **"**Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph,**"** ASTM International. Alternatively, determination of

exempt compounds may be performed in accordance with the South Coast Air Quality Management District Method 303-91, "Determination of Exempt Compounds," August 1996. For exempt compounds where no reference test method is available, a facility requesting the exemption shall provide appropriate test methods approved by the Control Officer and approvable by the Air Resources Board and the Environmental Protection Agency.

3. The reactive organic compound content of aerosol adhesives and aerosol adhesive primers shall be determined using South Coast Air Quality Management District Test Method 305-91, "Determination of Volatile Organic Compounds in Aerosol Applications," June 1993, or Air Resources Board Method 310, "Determination of Volatile Organic Compounds in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products," June 22, 2000, upon the Environmental Protection Agency approval of Method 310.

4. The reactive organic compound content of any plastic welding cement adhesive or primer shall be determined using South Coast Air Quality Management District Method 316A-92, "Determination of Volatile Organic Compound (VOC) in Materials Used for Pipes and Fittings," October 1996.

5. Reactive organic compound composite partial pressures shall be measured using ASTM D 2879-1997,**"**Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope," ASTM International, in combination with the formula in the Rule 102 definition of **"**reactive organic compound composite partial pressure," manufacturer's specified reactive organic compound composite partial pressure, or an accepted scientific reference approved the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

6. The capture efficiency for reactive organic compound emissions shall be determined by verifying the use of a Permanent Total Enclosure and 100 percent capture efficiency as defined by Environmental Protection Agency Method 204, **"**Criteria for and Verification of a Permanent or Temporary Total Enclosure." Alternatively, if an Environmental Protection Agency Method 204 defined Permanent Total Enclosure is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the Environmental Protection Agency technical guidance document **"**Guidelines for Determining Capture Efficiency, January 9, 1995." Individual capture efficiency test runs subject to the Environmental Protection Agency technical guidelines shall be determined by:

   a. The Temporary Total Enclosure approach of Environmental Protection Agency Methods 204 through 204F; or

   b. The South Coast Air Quality Management District **"**Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency," May 1995

7. The control device efficiency for reactive organic compound emissions shall be determined by Environmental Protection Agency Methods 25, 25A, the South Coast Air Quality Management District Method 25.1, **"**Determination of Total Gaseous Non-Methane Organic Emissions as Carbon," February 1991, or the South Coast Air Quality Management District Method 25.3, **"**Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources," March 2000, as applicable. Environmental Protection Agency Test Method 18 or Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990, shall be used to determine emissions of exempt compounds.

8. The active and passive solvent losses from spray gun cleaning systems shall be determined using South Coast Air Quality Management District's, "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," dated October 3, 1989. The test solvent for this determination shall be any lacquer thinner with a minimum reactive organic compound composite partial pressure of 105 millimeters of mercury at 20 degrees Celsius, and the minimum test

temperature shall be 15 degrees Celsius.

9. To determine if a diluent is a reactive diluent, the percent of the reactive organic compound that becomes an integral part of the finished material shall be determined using the South Coast Air Quality Management District Method 316A-92, "Determination of Volatile Organic Compound (VOC) in Materials Used for Pipes and Fittings," October 1996.

10. Application equipment coating transfer efficiencies shall be measured using South Coast Air Quality Management District Method **"**Spray Equipment Transfer Efficiency Test Procedure for Equipment User,**"** May 1989.

11. The capture efficiency requirement for toxic air contaminant emissions that are not reactive organic compounds shall be determined by using the methods described in Section N.6 modified in a manner approved by the District to quantify the mass of liquid or gaseous reactive organic compounds and/or toxic air contaminants.

12. The control device efficiency requirement for toxic air contaminant emissions that are not reactive organic compounds shall be determined using:

    a. an Environmental Protection Agency approved test method or methods, or

    b. in the case where there is no Environmental Protection Agency approved test method, a District approved detection method applicable for each target toxics specie.

    c. the Control Officer may require more than one test method on any emission control device where necessary to demonstrate that the overall efficiency is at least 85 percent by weight in reducing emissions of reactive organic compounds and/or toxic air contaminants. Any technique to convert "parts per million by volume" test method results to either 1) "parts per million by weight," or 2) "mass emission rates" (e.g., pounds per hour) shall first be approved by the Control Officer and, if such approval is not provided, then the technique shall not be used to show compliance with this rule.

13. Viscosity will be determined by ASTM D 1084-88, "Standard Test Methods for Viscosity of Adhesives," ASTM International.

14. Emissions of reactive organic compounds from the exhaust of an emission control system shall be measured by the Environmental Protection Agency Method 25, in combination with Environmental Protection Agency Method 18 or the California Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990 (to determine emissions of exempt compounds).

15. When more than one test method or set of test methods are specified for any testing, a test result showing an exceedance of any limit of this rule shall constitute a rule violation.

16. The Environmental Protection Agency test methods in effect on June 21, 2012 shall be the test methods used to meet the requirements of this rule.

O. Requirements – Recordkeeping

Any person subject to this rule that manufactures or applies any adhesive product or sealant product shall comply with the following requirements. Any owner or operator of any stationary source comprised of more than one facility may comply with the following requirements on a facility basis.

1. Maintain a current file of all reactive organic compound-containing materials in use at the stationary source subject to this rule. The file shall provide all of the data necessary to evaluate compliance and shall include the following information, as applicable:

a. material name, manufacturer identification (e.g., brand name, stock identification number);

b. application method;

c. material type, manufacturer's specific use instructions (e.g., specific use for which the material is intended), type operation (e.g., coating, stripping, or solvent cleaning), and, for coating operations, the product type, type of substrate coated, and type of application (i.e., the adhesive product and sealant product type from Table 353-1 or Table 353-2);

d. specific mixing data (e.g., component volumes or weights) of each component for each batch sufficient to determine the mixture's reactive organic compound content;

e. the corresponding reactive organic compound limit(s) from Sections D, E, F, G, H, and R and the actual as applied reactive organic compound content of the materials used. If complying using the "reactive organic compound composite partial pressure" method, provide the actual reactive organic compound composite partial pressure of the materials used

f. current adhesive product, sealant product, stripper, and solvent manufacturer specification sheets, Material Safety Data Sheets, product data sheets, or air quality data sheets, which list the reactive organic compound content of each material in use at the stationary source subject to this rule. Compliance with this provision may be done by ensuring the manufacturer's specifications are listed on the product container.

2. Maintain records for each reactive organic compound-containing material purchased for use at the stationary source. The records shall include, but not be limited to, the following:

a. material name and manufacturer identification (e.g., brand name, stock identification number); and

b. material type (e.g., adhesive product and sealant product type from Tables 353-1 and 353-2, cleanup solvent, stripper, etc.).

3. Maintain records of the disposal method each time waste solvent, waste solvent residue, or other waste material that contain reactive organic compounds is removed from the stationary source for disposal.

4. For each material maintained in response to Section O.1.a, maintain, at a minimum, on a monthly basis for compliant material and on a daily basis for noncompliant material, a record of the following:

a. volume used (gallons per day, gallons per month);

b. reactive organic compound content (grams per liter or pounds per gallon); and

c. resulting reactive organic compound emissions (pounds per day, pounds per month).

5. For any stationary source that uses emission control equipment as an alternative to meeting the requirements of Sections D, E, F, G, H, Q, or R, daily records of key operating parameter values and maintenance procedures that demonstrate continuous operation and compliance of the emission control equipment during periods of emission producing activities shall be maintained. These parameters shall include, but not be limited to:

a. Hours of operation;

b. All maintenance work that requires the emission control system to be shut down;

c. All information needed to demonstrate continuous compliance with Section I, such as temperatures, pressures, and/or flow rates.

6. Any records required to be maintained pursuant to this rule shall be kept on site for at least 2 years unless a longer retention period is otherwise required by state or federal regulation(s). Such records shall be readily available for inspection and review by the District.

P. Compliance Schedule

Any person subject to this rule shall meet the following compliance schedule:

1. By July 21, 2012, comply with Section J, Requirements - General Operating.

2. By December 21, 2012, comply with the recordkeeping provisions in the following Sections:

a. O.1.d - mixing data,

b. O.1.e - reactive organic compound content data or stripper composite partial pressure data,

c. O.2 - purchase records,

d. O.3 - waste disposal records, and

e. O.4 - daily records for noncompliant materials.

3. By June 21, 2013, comply with the applicable provisions in Sections G and H that have a phased-in effective date.

4. By June 21, 2013, comply with Section Q, R, and T requirements.

5. By June 21, 2012, comply with all other provisions of this rule.

Q. Requirement – Adhesive and Sealant Application Equipment

Effective June 21, 2012, no person shall apply adhesives or sealants unless the application is performed with equipment operating according to the manufacturers operating guidelines. In addition, except as provided in Section I, the application method employed shall be one of the following:

1. Electrostatic spray application, or

2. Flow coat application, or

3. Dip coat application, or

4. Roll Coater, or

5. High volume low pressure spraying equipment, or

6. Electrodeposition, or

7. Hand application methods, or

8. Any other application method approved by the Control Officer, the Air Resources Board, and the Environmental Protection Agency, that has a coating transfer efficiency equivalent to or greater than 65 percent efficiency as measured using the test method specified in Section N.10.

9. Except as otherwise provided in Section Q.10, air-atomized spray may only be used for the application of contact adhesives or specialty contact adhesives.

10. For adhesive products and sealant products with an as applied viscosity of 200 centipoise or greater, airless spray, air-assisted airless, and air-atomized spray may be used.

R. Requirements – Coating Stripper Use

Effective June 21, 2013, except as provided in Section I, no person shall apply any stripper or solicit the use of any stripper unless it complies with one or both of the following:

1. The stripper contains less than 300 grams of reactive organic compound per liter (2.5 pounds of reactive organic compound per gallon) of material.

2. The stripper has a reactive organic compound composite partial pressure equal to or less than 9.5 millimeters of mercury at 20 degrees Celsius.

S. Reporting Requirements

Submittal of an annual report to the District is required if a person holds a permit for applying adhesive products or sealant products subject to this rule. The annual report shall be due March 1 and it shall contain the following information for the previous calendar year:

1. monthly totals (gallons) of compliant and noncompliant material used based on the records required by Section O.4,

2. annual totals (gallons) based on each of the coating's, solvent's, and stripper's monthly data, and

3. name and address of the owner or operator, and the Permit to Operate number that the adhesive products and/or sealant products application operations are subject to.

T. Requirements - Solvent Cleaning Machine

Any person who owns, operates, or uses any solvent cleaning machine shall comply with the applicable provisions of Rule 321, Solvent Cleaning Machines and Solvent Cleaning.

7/13/94

RULE 354 GRAPHIC ARTS (ADOPTED June 28, 1994)

A. Applicability

The provisions of this rule apply to:

1. Any person who uses any ink, coating, adhesive, or solvent containing Volatile Organic Compounds (VOC) as part of a graphic arts operation or graphic arts line.

2. Any person in the District who manufactures any ink, coating, adhesive, or solvent containing VOC sold for use in a graphic arts operation or graphic arts line in the District.

3. The owner or operator of graphic arts operations subject to this rule shall apply for a District Permit to Operate by [ninety days from rule adoption] in accordance with District Rule 201.

B. Exemptions

1. The requirements of Subsections D.1, and D.2 shall not apply to graphic arts facilities which have emitted less than 301 pounds of VOC per month from graphic arts printing, coating, adhesive, and solvent cleaning operations.

2. The requirements of Section D. shall not apply to graphic arts operations used exclusively for graphic arts research, graphic arts classroom instruction in schools, laboratory analysis, or determination of product quality and commercial acceptance provided total facility emissions of VOC from such equipment do not exceed 300 pounds per month from printing, coating, adhesive, and solvent cleaning operations. Facilities qualifying for this exemption shall comply with recordkeeping requirements specified in Subsections G.1, G.2, and G.3.

3. 3. Operations which apply any VOC containing ink, coating, or adhesive on ceramic materials.

4. Circuit Board Printing.

5. Operations which apply inks used to indicate that sterilization has occurred.

6. Lithographic, Letterpress, or Screen Printing.

7. Any graphic arts operation or graphic arts line subject to the requirements of this rule shall be exempt from the requirements of Rule 317, Organic Solvents.

C. Definitions

1. "Blower": A unit, mounted on a web printing press, that sets and dries nonheatset ink by using unheated ambient air to accelerate the oxidation of the solvent components.

2. "Coating": A thin layer of material applied to a substrate in a relatively unbroken film.

3. "Composite Partial Vapor Pressure": The sum of the partial pressures of the compounds defined as VOC.

4. "Exempt Organic Compounds": Those organic compounds listed and excluded from the definition of "Reactive Organic Compounds" as defined in Rule 102 of these rules.

5. "Flexographic Printing": The application of words, designs, or pictures by roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric material.

6. "Fugitive Emissions": Uncollected emissions of VOC from any portion of the printing, coating or laminating operation.

7. "Grams of VOC per Liter of Coating (or Ink or Adhesive), Excluding Water and Exempt Compounds": The weight of VOC that are emitted during use, coating, curing or drying per combined volume of VOC and coating (or ink or adhesive) solids and can be calculated by the following equation:

   Grams of VOC per Liter of Coating (or Ink or Adhesive), Less Water and Less Exempt Compounds =

   $$(W_s - W_w - W_{es}) / (V_m - V_w - V_es)$$

   Where: W_s = weight of volatile compounds in grams
   W_w = weight of water in grams
   W_{es} = weight of exempt compounds in grams
   V_m = volume of material in liters
   V_w = volume of water in liters
   V_{es} = volume of exempt compounds in liters

8. "Grams of VOC per Liter of Material": The weight of VOC per volume of material can be calculated by the following equation:

   Grams of VOC per liter of material = $(W_s - W_w - W_{es}) / V_m$

   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

9. "Graphic Arts": All packaging rotogravure, publication rotogravure and flexographic processes or related coating or laminating processes.

10. "Graphic Arts Line": Printing application equipment, coating equipment, laminating equipment, flash-off areas, ovens, conveyors or other equipment in an uninterrupted series in a graphic arts operation.

11. "Graphic Arts Operation": Any packaging or publication rotogravure or flexographic printing operation.

12. "Heater or Dryer": A device utilizing an infrared radiation source to vaporize heatset inks.

13. "Heatset Ink": A quick-drying ink in which the solvents are vaporized by passing the printed surface through a heater or oven.

14. "Ink Additive": That solvent which is added to printing inks to reduce viscosity.

15. "Lamination": A process of bonding two or more layers of material to form a single multiple layer sheet by using adhesive.

16. "Nonheatset Ink": An ink which dries by oxidation and absorption into the substrate without the use of the heat from heaters or ovens.

17. "Oven": A heating chamber which uses heat, ultraviolet (UV) radiation, or electron beam (EB) radiation to bake, cure, polymerize, or dry a surface coating.

18. "Packaging Rotogravure": Rotogravure printing on paper, paperboard, foil, film or other substrates which are to be used to produce containers or packages, and other non-publication rotogravure printing.

19. "Pantone Color": A printing ink created for color matching by combination of process inks.

20. "Per Month": For sources using quarterly recordkeeping per month means average monthly emissions per calendar year quarter. For sources using daily or monthly recordkeeping per month means emissions per calendar month. If VOC emissions from a graphic arts facility exceed 300 pounds per month during any month the facility is from then on always subject to rule provisions applicable to facilities with emissions greater than 300 pounds per month.

21. "Printing Ink": Any fluid or viscous composition used in printing, impressing, or transferring an image onto a substrate.

22. "Process Ink": The hues: yellow, magenta, and cyan, plus black used in the four-color print process.

23. "Publication Rotogravure": Rotogravure printing on paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements or other types of printed material.

24. "Radiation Curing Inks": Inks which dry by polymerization reaction induced by either ultraviolet or electron beam radiation.

25. "Reactive Diluent": A liquid which is a VOC during application and one in which, through chemical reaction, a portion of the VOC becomes an integral part of a finished product.

26. "Remote Reservoir Cold Cleaner": A device in which solvent is pumped through a sink-like work area for cleaning parts and drains immediately, without forming a pool, through a single drain hole less than 100 square centimeters (15.5 square inches) in area into an enclosed container which is not accessible for soaking parts.

27. "Repair and Maintenance Cleaning": Cleaning of equipment parts as part of a repair operation or as part of a scheduled maintenance procedure during which the parts are not removed from the equipment and power to the printing equipment has been secured.

28. "Rotogravure Printing": A printing method where the image area is etched or engraved relative to the surface of the image cylinder. Ink is transferred from minute etched wells on a plate cylinder to a substrate, which is supported by an impression roller, with excess ink removed by a doctor blade. The substrate is fed through the printing press in continuous rolls.

29. "Solvent": Means a VOC-containing liquid used to perform solvent cleaning operations.

30. "Solvent Flushing": The use of a solvent to remove uncured adhesives, uncured inks, uncured coatings, or contaminants from the internal surfaces and passages of the equipment by flushing solvent through the equipment.

31. "Sterilization Indicating Inks": Inks that change color to indicate that sterilization has occurred. Such inks are used to monitor the sterilization of medical instruments, autoclave efficiency and the thermal processing of foods for prevention of spoilage.

32. "Surface Preparation": The removal of contaminants such as cured coatings, cured inks, cured adhesives, dust, soil, oil, grease, etc., prior to coating, adhesive, or ink applications.

33. "Volatile Organic Compounds (VOC)": Shall have the same meaning as Reactive Organic Compounds (ROC) as defined in Rule 102 of these Rules.

34. "VOC Materials": Inks, coatings, adhesives, materials used for cleanup or ink, coating, or adhesive removal, solvent, paper and cloth, and waste containing, impregnated with, coated with, or mixed with Volatile Organic Compounds.

35. "Wipe Cleaning": The method of cleaning which utilizes a material such as a rag dampened, not saturated, with a solvent, coupled with a physical rubbing process to remove contaminants from surfaces.

D. Requirement - Graphic Arts Operators

1. No person shall use any inks, coatings, or adhesives unless the VOC content, as applied, is less than 300 Grams per Liter (g/l) (2.5 pounds per gallon), less water and less exempt organic compounds.

2. No person shall use a solvent as an ink additive or to perform cleaning operations unless the solvent has a VOC composite partial vapor pressure of 33 mm Hg or less at 20°C (68°F) and the solvent VOC content is less than the following limits:

LIMITS

	g/l	(lb/gal)
Surface Preparation	450	(3.75)
Repair and Maintenance Cleaning	750	(6.25)
Coatings and Adhesives Application Equipment Cleaning	950	(7.92)
Radiation Curing Ink Removal Cleaning	800	(6.67)
Ink Application Equipment Cleaning:		
Printing	450	(3.75)
Other, not listed	200	(1.67)

3. No person shall perform cleaning operations unless one of the following cleaning devices or methods is used:

a. Wipe cleaning;

b. Remote reservoir cold cleaner;

c. Spray bottles or containers with a maximum capacity of 16 fluid ounces from which solvents are applied without propellant-induced force;

d. Cleaning equipment utilizing a closable solvent container. The solvent container shall remain closed during cleaning operations, except when depositing and removing objects to be cleaned, and during nonoperation, except when performing maintenance and repair to the cleaning equipment.

1) If a solvent flow method is used, the solvent shall not be atomized.

2) If a solvent flushing method is used, the solvent shall be flushed through the system by pumping.

4. In lieu of the requirements of Subsection D.1, emissions of VOC, excluding emissions from clean up operations, may be controlled by an emission capture and control system, which reduces VOC emissions to the atmosphere, provided that:

a. During any period of continuous operation not to exceed 24 hours, the capture and control system shall have a combined efficiency of at least 75 percent, by weight, for publication rotogravure and at least 67 percent, by weight, for other types of printing operations; and,

b. The collection system shall vent all drying oven exhaust to the control device and shall have one or more inlets for collection of fugitive emissions; and,

c. VOC emissions are no greater than emissions if compliant inks, coatings, and adhesives as per Subsection D.1 were used; and,

d. During any period of operation of a thermal incinerator, combustion temperature shall be continuously monitored; and,

e. During any period of operation of a catalytic incinerator, exhaust gas temperature shall be continuously monitored; and,

f. Written approval for such equipment, in the form of an Authority to Construct and Permit to Operate, is received from the Air Pollution Control Officer (APCO).

5. VOC materials shall be stored in nonabsorbent, nonleaking containers, which shall be kept closed except when adding or removing material or during cleaning operations.

6. VOC material wastes shall be disposed of in a manner consistent with Federal, State, and local hazardous waste regulations.

E. Requirement - Graphic Art Manufactures

1. The manufacturer of any ink, coating, adhesive, or solvent subject to this rule shall include the following information on the product container or a data sheet supplied with the product:

a. Material name, manufacturer identification, specific mixing instructions, and VOC content, as applied.

b. The VOC content of inks, coatings, and adhesives expressed as defined in Subsection C.7.

c. The VOC content of solvents expressed as defined in Subsection C.8. The VOC composite partial vapor pressure, if required, expressed as specified in Subsection F.3.

F. Test Methods

1. Measurement of the VOC content of inks, coatings, adhesives, and solvents, except as specified in subsection F.2, shall be conducted and reported in accordance with EPA Reference Method 24 and ARB Method 432 for determination of exempt compounds as necessary.

2. Measurement of the VOC content of publication rotogravure inks shall be conducted and reported in accordance with EPA Reference Method 24A and ARB Method 432 for determination of exempt compounds as necessary.

3. The VOC composite partial vapor pressure of a blended solvent shall be determined by quantifying the amount of each VOC compound in the blend using gas chromatographic analysis (ASTM D2306-81) and by calculating the composite partial vapor pressure of the solvent by summing the partial pressures of each VOC compound at 20°C. For the purpose of this calculation, the blend shall be assumed to be an ideal solution where Raoult's Law applies. Composite partial vapor pressure may be calculated using product formulation data or may be determined using ASTM D2306-81.

4. Emissions of VOC as specified in Subsection D.4, shall be measured as prescribed by either EPA Reference Method 25 or EPA Reference Method 25A, for determining total organic emissions, and EPA Reference Method 18, for quantifying emissions of exempt compounds.

5. The capture and control efficiency of air pollution control equipment, as specified in Subsection D.4, shall be determined using applicable methods in 40 CFR 52.741.

G. Recordkeeping

Any person subject to this rule shall:

1. Maintain a current file for each ink, coating, and adhesive in use and in storage. The file shall include a data sheet or material list giving material name, manufacturer identification, specific mixing instructions, and VOC content as applied.

2. Maintain a current file for each solvent in use and in storage. The file shall include a data sheet or material list giving material name, manufacturer identification, specific mixing instructions, VOC content and, if required, composite partial vapor pressure.

3. If VOC emissions from a graphic arts facility do not exceed 300 pounds per month and such facility uses only compliant inks, coatings, adhesives, and solvents:

   a. Maintain records on a calendar quarter basis showing the type and amount of ink used. Ink usage records shall be maintained using one of the following options:

      1) Group the quantity of all inks used and use the highest VOC content and the minimum density.

      2) Report process inks and pantone colors separately and:

         a) Use the specific VOC content and density values for each process ink and the highest VOC and the minimum density for pantone inks; or

         b) Use the highest VOC content and minimum density for both process and pantone inks.

      3) Itemize each ink and pantone color and use the specific VOC content and density value for each.

b. Maintain records on an calendar quarter basis showing the type and amount of coatings, adhesives, and solvents used. Itemize each coating, adhesive, and solvent and use the specific VOC content and density value for each.

4. If VOC emissions from a graphic arts facility exceeds 300 pounds per month and such facility uses only compliant inks, coatings, adhesives, or solvents; or if VOC emissions from a graphic arts facility does not exceed 300 pounds per month and such facility uses any non-compliant ink, coating, adhesive, or solvent:

a. Maintain records on a monthly basis showing the type and amount of all inks used. Ink usage records shall be maintained using one of the following options:

1) Group the quantity of all inks used and use the highest VOC content and the minimum density.

2) Report process inks and pantone colors separately and:

a) Use the specific VOC content and density values for each process ink and the highest VOC and the minimum density for pantone inks; or

b) Use the highest VOC content and minimum density for both process and pantone inks.

3) Itemize each ink and pantone color and use the specific VOC content and density value for each.

b. Maintain records on a monthly basis showing the type and amount of all coatings, adhesives, and solvents used. Itemize each coating, adhesive, fountain solution, and solvent and use the specific VOC content and density value for each.

5. If any non-compliant ink, coating, adhesive, or solvent is used, and compliance is achieved through the use of emission control equipment:

a. Maintain records on a daily basis showing the type and amount of inks, coatings, and adhesives used. Itemize each ink, coating, adhesive and use the specific VOC content and density value for each.

b. Any person using an emission control system as a means of complying with this rule shall maintain daily records of key system operating maintenance procedures which will demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities. Key system parameters are those necessary to ensure compliance with VOC content of coating requirements such as temperatures, pressures, and flow rates.

c. Maintain records on a daily basis showing the types of solvents used. Maintain records on a monthly basis showing the amount of fountain solutions and solvents used. Itemize each fountain solution and solvent and use the specific VOC content and density value for each.

6. Records required by this rule shall be retained for a minimum of two years and shall be made available to Air Pollution Control Officer upon request.

H. Reporting

Any person subject to the rule that is using quarterly recordkeeping specified in Subsection G.3 shall submit an annual report to the Air Pollution Control Officer. The annual report shall contain the quarterly records required by Subsection G.3, and shall be due March 1 for the preceding calendar year.

I. Enforcement

If a person subject to this rule is using quarterly recordkeeping and is found to have used any noncompliant ink, coating, adhesive, or solvent, the person shall be considered in violation of this rule for every day during the preceding 12 month period, unless the person can demonstrate with daily records to the satisfaction of the Air Pollution Control Officer that the duration of the violation occurred within a shorter period.

J. Compliance Schedule

The provisions of this rule shall become effective on December 28, 1994.

7/13/94

Rule 359 Flares and Thermal Oxidizers *(Adopted on June 28, 1994)*

A. Applicability

The provisions of this Rule shall apply to the use of flares and thermal oxidizers at oil and gas production sources (SIC code 13), petroleum refinery and related sources (SIC code 29), natural gas services and transportation sources (SIC code 49) and wholesale trade in petroleum/petroleum products (SIC code 51). This Rule shall, on the date of its adoption, supersede the fuel combustion provisions of Rule 311 only insofar as these fuel combustion provisions apply to flares and thermal oxidizers.

B. Exemptions

1. The provisions of this Rule shall not apply to the burning of sulfur, hydrogen sulfide, acid sludge or other sulfur compounds in the manufacturing of sulfur or sulfur compounds. For oil and gas sources (SIC Code 13) that recover sulfur as a by-product of gas treating/sweetening processes, the exemption for manufacturing shall apply only to those specific processes, e.g., sulfur recovery plant.
2. The provisions of this Rule, with the exception of Section D.2 (Technology Standards), shall not apply to the burning of any gas with a net heating value of less than 300 British Thermal Unit (Btu) per standard cubic foot (scf) provided the fuel used to incinerate such gas does not contain sulfur compounds in excess of the following:
   a. 15 grains/100 cu.ft. (calculated as H_2S at standard conditions) in the Southern Zone, and
   b. 50 grains/100 cu.ft. (calculated as H_2S at standard conditions) in the Northern Zone of Santa Barbara County.
3. The provisions of this Rule, with the exception of Sections D.1 (Sulfur Content in Gaseous Fuels), D.2 (Technology Standards), G (Monitoring and Recordkeeping) and H (Reporting) shall not apply to flare or thermal oxidizer units rated, per their operating permits, at 1.7 MMBtu/hour or less. However, if the total cumulative rating of all such rated units at a source exceeds 5 MMBtu/hr, then the exemption shall not apply.
4. The following are exempt only from Section D.3 (Flare Minimization Plan) of this Rule:
   a. Flare and thermal oxidizer units rated, per their operating permits, at less than 15 MMBtu/hour. However, if the total cumulative rating of all such rated units at a source exceeds 50 MMBtu/hr, then this exemption shall not apply.
   b. Flares and thermal oxidizers whose flaring operations solely consist of planned, continuous flaring due to the non-availability of a produced gas pipeline outlet.

C. Definitions

For purposes of this Rule, the following definitions shall apply. See Rule 102 (Definitions) for definitions that are not restricted to interpretation of this Rule only.

"Burn" means combustion of any fuel including a gaseous fuel, whether for useful heat or by incineration without heat recovery.

"Day" or "days" means calendar day(s) unless otherwise stated.

"Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the permittee, including acts of God. An emergency situation requires immediate corrective action to restore normal, safe operation. It also causes an exceedance of an emission standard or a limit stipulated in this Rule, due to unavoidable increases in emissions attributable to the emergency situation only. Events which have been deemed as planned events (for definition, see later in this section) by a federal regulatory agency shall be precluded from being considered as emergency events.

"Emergency Flare Event" means the combustion (flaring) of gaseous fuels caused by an emergency event.

"Flare" means a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.

"Flare Gas" means produced gas or natural gas burned in a flare or thermal oxidizer.

"Gaseous fuel" means gases used as combustion fuel which include, but are not limited to, any natural, process, synthetic, landfill, sewage digester, or waste gases. Gaseous fuel includes produced gas, pilot gas and, when burned, purge gas.

"Month" or "monthly" means calendar month or refers to calendar month.

"Net heating value" means the heating value of the flare gas being combusted, as specified under 40 CFR 60.18(f)(3) [1992 Edition].

"Northern Zone of the Santa Barbara County" means that portion of Santa Barbara County described in Section 60103(b) of Title 17 of the California Administrative Code as written on December 21, 1968 (Register 68, No.48). The Northern Zone also includes (a) State waters and, (b) those areas of the OCS waters for which the District has been designated the corresponding onshore area by the USEPA -- which are located offshore of that portion of Santa Barbara County lying north of the latitude of the mouth of Jalama Creek.

"Pilot Gas" means gas that is used to ignite or continually ignite flare gas. Pilot gas may be PUC-quality gas, liquefied petroleum gas (LPG) or produced gas.

"Planned Flaring" means a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. Planned flaring includes, but is not limited to, the following activities:

1. Flaring during well tests, well-related work, tests ordered by applicable regulatory agencies;
2. Flaring due to equipment depressurization for preventive maintenance that includes: (a) routine engine overhauls (b) turbine start-ups (c) compressor start-ups (d) engine exchange/ removal (e) platform modification/construction (f) hot-jobs (welding, etc.), (g) new platform/well start-up, (h) well work-over, (i) maintenance at onshore source supporting offshore production, (j) Installation of Sulferox etc., system, (k) planned plant shut-downs, (l) unloading from new well, (m) rupture disc maintenance, (n) acid job, (o) source testing, and (p) any pipeline depressurization not due to breakdown conditions (e.g., pigging);
3. Flaring of produced gas at production sources for which no gas handling, gas injection, or gas transmission facilities currently exist;
4. Flaring of "off-specification" gas (e.g., non-PUC quality gas), unless the permittee can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under an emergency.

"Planned continuous flaring" shall include flare purge and flare pilot operations, and continuous flaring of produced gas which is not otherwise processed at the source.

"Planned intermittent flaring" shall include all other planned flaring of limited duration in time and volume of gaseous fuel, e.g., pigging or equipment depressurization for maintenance.

"Preventive Maintenance" means a regularly scheduled course of procedure designed to prevent equipment failure or decline of equipment function.

"Produced gas" means organic compounds that are both: (a) gaseous at standard pressure and temperature (1 atmosphere and 60°F), and (b) associated with the production, gathering, separation or processing of crude oil and/or natural gas.

"Public Utilities Commission (PUC) Quality Gas" means, in the context of sulfur content of the gaseous fuel, gas containing no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet and no more than five grains of total sulfur per one hundred (100) standard cubic feet. PUC quality gas shall also mean high methane (at least 80 % by volume) gas as specified in PUC's General Order 58-A.

"Purge Gas" means an inert gas mixture, LPG, PUC quality gas, or produced gas, any of which can be used to maintain a non-explosive mixture of gases in the flare header or provide sufficient exit velocity to prevent any regressive flame travel back into the flare header.

"Smokeless" means, in the context of flare or thermal oxidizer combustion, operation with visible emissions not exceeding an opacity level, for a period or periods aggregrating more than three minutes in any one hour, as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart as published by the U.S. Bureau of Mines.

"Southern Zone of the Santa Barbara County" means that portion of Santa Barbara County so described in Section 60104 of Title 17 of the California Administrative Code as written on December 21, 1968 (Register 68, No.48). The Southern Zone also includes (a) State waters and, (b) those areas of the OCS waters for which the District has been designated the corresponding onshore area by the USEPA -- which are located offshore of that portion of Santa Barbara County lying south of the latitude of the mouth of Jalama Creek.

"Thermal Oxidizer" means a combustion device that includes enclosed, ground-level flares and in which the gases to be flared pass through one or more staged burners which may be steam quenched or assisted to control smoke. The products of combustion are funneled through a naturally drafted stack to above ground elevations. Thermal oxidizers come equipped with controls for combustion chamber temperature and often with combustion fuel-air mix controls.

"Unplanned Flaring" means a flaring event that is not planned or scheduled to occur. An emergency event is an example of an unplanned event (emergency event is a subset of unplanned event).

D. Requirements

1. Sulfur Content in Gaseous Fuels

a. Effective June 28, 1994, any planned flaring shall not burn gaseous fuel which contains sulfur compounds in excess of 15 grains per 100 cubic feet (239 ppmv) in the Southern Zone of Santa Barbara County or 50 grains per 100 cubic feet (796 ppmv) in the Northern Zone of Santa Barbara County -- calculated as hydrogen sulfide at standard conditions (i.e., 1 atmosphere and 60°F).

b. An owner or operator of a source may apply for an exemption from Section D.1.a, by doing the following:

1) Demonstrate to the Control Officer that it is infeasible to comply with Section D.1.a. The demonstration shall provide a detailed explanation analyzing all engineering, safety or cost constraints. This demonstration shall be submitted within 90 days of June 28, 1994; and,

2) Submit an offset plan as a compliance plan, mitigating the SO_2 emissions from the source associated with planned flaring which are in excess of the limits in section D.1.a. at an offset ratio of 1:1. The offset plan shall meet all federal and District criteria and guidelines for emission reductions; and may include an inter-pollutant offset scheme, if allowed under the USEPA and the State of California air quality regulations and guidelines. This plan shall be submitted with the demonstration required under Section D.1.b.1). If the exemption is granted by the Control Officer, the owner or operator shall implement the offset plan.

c. All costs associated with the District's review and approval of the exemption determination and offset plan shall be reimbursable by the owner or operator, in accordance with the requirements of District Rule 210.I.C (Cost Reimbursements).

d. Emergency flare events are exempt from the provisions of Section D.1.a of this Rule.

2. Technology-based Standard

The owner or operator of any source subject to this Rule shall comply with the following technology standards:

a. All flares and thermal oxidizers installed or operating after June 28, 1994 shall be smokeless (cf: Definition in Section C).

b. All new and existing flares and thermal oxidizers shall comply with the following:

1) The outlet shall be equipped with an automatic ignition system including a pilot-light

gas source or equivalent system, or, shall operate with a pilot flame present at all times -- with the exception of purge periods for automatic-ignition equipped flares or thermal oxidizers.

2) The presence of the flame in the pilot of the flare or the thermal oxidizer shall be continuously monitored using a thermocouple or an equivalent device that detects the presence of a flame, unless such device(s) can be demonstrated by the permittee to be infeasible, based on engineering, safety or costs constraints, and to the satisfaction of the Control Officer; and,

3) The flame shall be operating at all times when combustible gases are vented through the flare or thermal oxidizer.

c. The following provisions shall apply to low-pressure, open pipe flare operations where the flare gas pressure at the flare tip inlet is less than 5 psig:

1) Steam-assisted or air-assisted flares shall be operated only if the gaseous fuel burned in such flares has a net heating value of 300 Btu/scf or greater. Non-assisted flares shall be operated only if the gaseous fuel burned in such flares has a net heating value of 200 Btu/scf or greater.

2) Steam-assisted, air-assisted and non-assisted flares burning gaseous fuel with a net heating value between 300 (200 for non-assisted flares) and 1,000 Btu/scf shall be operated with an actual exit velocity not exceeding a design maximum velocity V_{max}, defined in Appendix B to this Rule. The "actual exit velocity" of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure) by the unobstructed (free) cross-sectional area of the flare tip.

3) Steam-assisted, air-assisted and non-assisted flares burning gaseous fuel with net heating value exceeding 1000 Btu/scf shall be operated with an actual exit velocity not exceeding 400 ft/sec.

3. Flare Minimization Plan

a. Any source subject to this Rule and operating flare or thermal oxidizer units rated at 15 MMBtu/hour or greater (ref: Section B.4 of this Rule) as listed in the source's operating permits, or in the source's ATC if no operating permit has been issued, shall submit a flare minimization plan to the Control Officer. The plan shall meet the requirements set forth in Appendix A to this Rule.

b. For planned flaring, the minimization plan for all sources subject to this Rule shall list a targeted maximum monthly flared gas volume. The target volume shall not exceed five (5) per cent of the average monthly gas handled/produced/treated at the source, calculated per Section

D.3.c below. This targeted volume limit will be placed in the source permit at the next operating permit issuance/renewal/reevaluation for the source owner or operator. However, a higher limit may be granted by the Control Officer, if the following condition is met:

The owner or operator can demonstrate such a maximum volume limit to be infeasible based on safety, engineering or cost constraints and proposes a different percentage as volume limit, based on the same considerations. The proposed limit shall be included in the flare minimization plan for approval by the Control Officer. After approval, the new throughput limit will be placed on the Permit to Operate at the next permit renewal/reevaluation.

c. For sources which have operated for more than three years as of June 28, 1994, the average monthly gas volume referred to in Section D.3.b. shall be based on the last three calendar years of historical data for such volume. However, any three consecutive calendar years of data may be used for such purpose if the permittee so requests and demonstrates to the satisfaction of the Control Officer that such period is more representative of the permitted operations at the source. For new or modified sources or sources operating for less than three years, five (5) per cent of the source design capacity for gas handled/produced/treated shall be the target monthly volume for the first three years of operation. Following three years of operation, the data history obtained shall establish a new, planned flaring volume limit, which limit shall be incorporated in the next operating permit for the source.

For existing sources, an increase in the monthly flared gas volume limit due to produced/handled/treated gas volume increases shall not be considered a part of the source's net emission increase, provided neither the permitted emission limits nor the permitted volumes for gas produced/handled/treated are exceeded, and the Control Officer has been notified, in writing, of such increases within 30 days of the end of the month on which the increase occurs and the basis thereof.

d. Where limits have been established for sources pursuant to Section D.3.b above, the owner or operator shall develop and submit an emissions mitigation plan, if both of the following apply to the source's operations:

1) The permitted or proposed volume limit exceeds ten (10) per cent of average monthly volume of handled/produced/treated gas (this average shall be calculated per Section D.3.c above); and,

2) The sulfur content of the flared gas exceeds the fuel sulfur limits stipulated in Section D.1.a. of this Rule.

e. The emissions mitigation plan shall achieve the following:

Reduction by 50 per cent, of either the actual average monthly flare gas volume (calculated per Section D.3.c above) or the proposed volume limit, not later than five

(5) years after June 28, 1994, whichever reduction volume is greater. Such reduction shall also follow the volume reduction schedule listed in the flare mitigation plan.

After the plan is approved, the plan listed limit(s) will be placed in the source permit at the next operating permit issuance/renewal/reevaluation.

f. All costs associated with the District's review and approval of plans submitted pursuant to Section D.3 shall be reimbursable by the owner or operator, in accordance with the requirements of District Rule 210.I.C (Cost Reimbursements).

4. Emergency Events

Any flaring which causes an exceedance of the emission limits or standards of this Rule shall not be a violation of this Rule if the owner or operator of the source demonstrates that the exceedance resulted from an emergency event. To demonstrate that an emergency event occurred, the owner or operator shall do the following:

a. Inform the Control Officer (Attn: Compliance Manager), via phone or facsimile equipment, of the commencement of any emergency event not later than four (4) hours after the start of the next regular business day;

b. Contemporaneously document that an emergency event has occurred and the causes have been identified in an operating log, and properly sign in each entry. Such logs shall be available to the Control Officer on request;

c. Submit to the Control Officer within seven (7) days of the end of the emergency event:

1) a complete description of the event and all mitigating and corrective actions implemented at the source per Appendix A (cf: flare minimization plan); and,

2) a demonstration that all reasonable steps were taken to minimize emissions in excess of permit conditions or other permit requirements; and,

3) a demonstration that the emergency was not caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, operator error or willful misconduct.

4) a document that the source was being properly operated at the time the emergency event occurred;

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency event has the burden of proof. A list of typical causes for emergency flare events is provided in Appendix C of this Rule as guidance to the permittees.

5. Emission and Operational Limits

The following emission and operating limits shall apply to any source subject to this Rule:

a. Flares and thermal oxidizers which use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use inert gas or PUC quality gas for purging.

b. Flares or thermal oxidizers rated at fifteen (15) million Btu/hour or greater shall not exceed, for planned flaring, the targeted (cumulative) monthly volume limit of flare gas (expressed as scf/month), established pursuant to Section D.3 (Flare Minimization Plan).

c. Pollutant emissions from all thermal oxidizers and ground-level enclosed flares with planned continuous flaring (per definition in Section C) exceeding 120,000 scf/day (daily maximum basis) shall meet the following emission standards:

FLARE TYPE	Heat Release Rate (MMBtu/hr)	Emissions Standards (in lbs/MMBtu)	
		NO_x	ROC
w/o Steam-assist	< 10 MMBtu/hr	0.0952	0.0051
	10-100 MMBtu/hr	0.1330	0.0027
	> 100 MMBtu/hr	0.5240	0.0013
with Steam Assist	**All**	0.068	0.14--as TOG

E. Test Methods

The standard test methods listed below shall be used during required tests, as applicable, by the source owner or operator to demonstrate compliance with this Rule. Test methods not listed may be used if the owner or operator demonstrates to the Control Officer that the method is an equivalent test method, and obtains the USEPA or ARB approval of this method prior to its use.

1. Visible emissions shall be determined using the USEPA Reference Method 9.
2. For an open pipe flare, the volumetric flow rate for actual velocity shall be determined by the USEPA Reference Methods 2, 2A, 2C or 2D as appropriate.
3. The net heating value of gaseous fuel shall be determined by ASTM D4891-89, or ASTM D1945-81, or ASTM D1946-90.

4. For total gas sulfur content measurement:

   a. Total reduced sulfur in the gaseous fuel shall be measured using the USEPA Reference Method 16 (Gas Chromatography-Flame Photometric Detector analysis) or 16A or BAAQMD ST-21.

   b. Gas sampling using the USEPA Method 18 and laboratory gas analysis using ASTM D1072-90 or ASTM D4468-85 may be used in limited circumstances when pre-approved by the Control Officer to determine the total reduced sulfur in gaseous fuels. Strict controls on sampling materials and analysis turnaround time shall be required.

   c. For field determination of H_2S level during emergency flaring events, color detection tube methods (e.g., Draeger, Sensidyne or other methods) may be used if the H_2S level in the gas stream is within the acceptable limits for the method.

5. NO_x and ROC levels in the exhaust of thermal oxidizers or ground-level enclosed flares shall be measured following procedures outlined in the applicable reference test methods listed in 40 CFR 60.17. The reference test methods include, but are not limited to the following:

   a. NO_x -- USEPA Method 7 or CARB 100

   b. ROC -- USEPA Method 18 or USEPA Method 25.

   c. Flow rate and mass emission rate -- USEPA Method 19

   d. CO_2 and O_2 concentrations -- USEPA Method 3 or CARB 100.

6. Hydrogen sulfide in the gaseous fuel shall be measured using the USEPA Reference Method 11, modified as applicable for concentrations greater than 500 ppmv H_2S.

F. Source Testing

Any owner or operator of a source subject to this Rule shall perform the following:

1. Measure triennially the NO_x and ROC emissions through the stack of any thermal oxidizer or ground-level enclosed flare operated for planned continuous flaring of 120,000 scf/day of gases or more (daily maximum basis), by source testing (annually for sources subject to federal Part 70 operating permits, or more frequently if required by applicable rules). A source test plan/schedule shall be submitted to the Control Officer as part of the required permit application for the source.

2. Measure (a) the purge gas fuel sulfur content, if such gas is not a PUC quality gas or an inert gas, and (b) the gaseous fuel sulfur content and the net heating value for all gaseous fuel which constitute planned flaring. Measurement shall be performed triennially, except for sources which require federal Part 70 operating permits, in which case annual or more frequent testing shall be performed as required by applicable Part 64 Rules.

3. For emergency flare events, the owner or operator shall estimate the H_2S content of the flare gas using available operation and measurement records, provided that the owner or operator can demonstrate to the satisfaction of the APCO that such records are representative of the gas stream flared.

G. Monitoring and Recordkeeping

Any owner or operator of a source subject to this Rule shall perform the following, as applicable:

1. Monitor the volume (in scf/month) of all gaseous fuel flared as part of planned/unplanned flaring, if subject to Section D.3. A flare volume monitoring plan shall be submitted to the Control Officer for approval as part of the flare minimization plan. A record of monitored volumes shall be kept by the owner or operator in a format prescribed and approved by the Control Officer, and shall be available for inspection upon request by the District.
2. Monitor the volume of gaseous fuel flared during each emergency event as part of the required emergency event description report.

H. Reporting

Any owner or operator of a source subject to this Rule shall provide the following reports, as applicable:

1. Results of each source test for NO_x and ROC, obtained pursuant to Section F.1, shall be submitted to the Control Officer within 45 days of the completion of source testing.
2. The result of each test report for (a) purge gas S content (if applicable), (b) gaseous fuel S content and (c) gaseous fuel net heating value, obtained pursuant to Section F.2, shall be submitted to the Control Officer by March 1st of the year following the calendar year on which the testing occurred.
3. Data for the monthly volumes (in scf/month) of gas flared per (i) planned continuous and (ii) planned intermittent flaring categories, obtained pursuant to Section G.1, shall be submitted annually to the Control Officer. Each calendar year data report shall be submitted by March 1st of the following calendar year.
4. An annual summary of the total gas volume released during emergencies and the weighted-average H_2S content for the entire volume, obtained pursuant to Sections G.2 and F.3, to be provided to the Control Officer. The annual report for each calendar year shall be submitted by March 1st of the following year.

5. Report on any exceedance of the allowable monthly volume of gases for planned flaring, to be submitted to the Control Officer within sixty (60) days of the end of the exceedance month. The report shall list the exceedance volume (volume in excess of the allowed volume) and the estimated sulfur content of the gaseous fuel flared.

I. Compliance Schedule

1. New sources shall comply with this Rule on June 28, 1994.
2. Existing sources shall comply with this Rule as follows:
   a. Offsets required pursuant to Section D.1.b. shall be implemented within 180 days after the Control Officer grants the request for exemption. Extensions may be granted by the Control Officer for good cause shown. Notwithstanding any other provision of this rule, an owner or operator of a source who receives an exemption shall have offsets in place no later than 1 year after the date the exemption request has been filed with the Control Officer.
   b. All flares and thermal oxidizers subject to Section D.2 shall comply within one (1) year of June 28, 1994.
   c. The flare minimization plan and emissions mitigation plan required pursuant to Sections D.3.a. and D.3.d shall be submitted within 90 days after June 28, 1994, and approval of the same shall be obtained within 180 days after June 28, 1994. Full compliance with the targeted volume limits required under Sections D.3.b and D.3.e shall be achieved within five (5) years of June 28, 1994.
   d. Flares and thermal oxidizers subject to D.5.a. shall comply within 180 days of June 28, 1994,
   e. If any new equipment is proposed for installation to comply with Section D.2, an authority to construct application with all necessary information shall be submitted to the Control Officer within ninety (90) days of June 28, 1994.
   f. The flare volume monitoring plan required under Section G.1. shall be implemented by the owner or operator within 30 days of the Control Officer approval of the plan.
3. Sources on the OCS which become subject to this Rule shall comply with all provisions of this Rule by the dates specified in the Rule or when the USEPA promulgates this Rule as applicable to the OCS sources, whichever is later.

J. Effective Date of Rule

This Rule is effective on June 28, 1994.

APPENDIX A

The flare minimization plan shall include the following, where applicable:

1. Details of measures implemented at each source subject to this Rule to decrease the total monthly volume of flare gas being combusted and to reduce the number of planned flaring activities.

2. Descriptions of measures in place to prevent the recurrence of emergency flaring events, and reduce the occurrence of unplanned flaring events. Such measures may include installation of redundant equipment.

The flare minimization plan shall also incorporate the following:

a. A detailed description of the flare system including process flow diagram(s), flare tip design details and the manufacturer's information on flare operation and maintenance;

b. A detailed description of the flare gas monitoring system that records the gas throughput, e.g., make and model of the meter, precision and accuracy of the meter, data management, maintenance/calibration or manufacturer's specifications, and of the method to determine the flare gas sulfur content;

c. The design and operation features of the pilot and purge gas system which minimize the volume of gas consumed;

d. A description of the design features that demonstrate the capability of the flare to handle the nominal and peak gas flows and the range of gas composition encountered at the source; all calculations showing anticipated flare exit velocities for maximum flare gas flow rates;

e. Plans for reduction of emissions from planned flaring activities including those which result from planned depressurizing of vessels, compressors, and pipelines;

f. Charts outlining the possibility of coordination of schedules to reduce planned shutdowns;

g. Any proposed study program involving operating set points on controllers and safety devices to determine if a different setting could minimize emissions (for OCS sources, this study may be

submitted to the appropriate safety agency for approval prior to the Control Officer submittal);

i. Summary of scheduled/typical planned flaring including frequency and volume; also, summary of each of these parameters after implementation of the proposed plan; data on gas production rates including the current actual and the maximum anticipated production rates.

The flare owner or operator shall review the flare minimization plan every five (5) years, and shall submit to the District any findings of new procedures or technologies for flare minimization that were not addressed in earlier plans. If any such procedures or technologies are identified, the owner or operator shall also submit a schedule for the implementation of such procedures and technologies.

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APPENDIX B

No flare shall operate with an actual exit velocity exceeding a designed maximum velocity V_{max}. This design velocity V_{max} is computed, as follows:

1. For steam-assisted and non-assisted flares, the design maximum velocity V_{max1} is calculated according to the equation:

$$\text{Log}_{10}\,(V_{max1}) = (H_T + 1214)/852, \text{ where}$$

V_{max1} = maximum permitted velocity (in ft/sec); 1214 = a constant; 852 = a constant; and, H_T = net heating value of the gaseous fuel (in Btu/scf), provided $300 < H_T < 1000$ for steam-assist and $200 < H_T < 1000$ for non-assist.

2. For air-assisted flares, the design maximum velocity V_{max2} is calculated by the following equation:

$$V_{max2} = 28.56 + 0.0867\,(H_T), \text{ where}$$

V_{max2} = maximum permitted velocity (in ft/sec): 28.56 = a constant: 0.0867 = a constant; and, H_T = net heating value of the gaseous fuel (in Btu/scf), provided $300 < H_T < 1000$.

3. If H_T exceeds 1000 Btu/scf, then H_T shall equal 1000 Btu/scf for the purpose of applying these equations to compute the value of V_{max}.

Appendix B shall not apply to high-pressure flares where the flare gas pressure at the flare tip inlet is greater than 5 psig.

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APPENDIX C

The following events comprise a brief list of events that would qualify as emergency events. Note that these events must also meet the criteria of emergency specified in this Rule, before they can be considered as emergency events.

1. Equipment Breakdowns:	Electrical equipment (transformer, motors) and internal combustion engine breakdowns. Major equipment breakdowns (turbine-generator, compressor, compressor stage fall-outs etc.)
2. Relief Valve Events:	All unintentional safety valve releases as caused by emergency shutdown valve(s) and shut-in valve(s) events, temperature control events and high/low fluid temperature and pressure level events.
3. Source/Pipeline Shutdowns:	All offshore and onshore process and source or plant breakdowns and pipeline breakdown events.
4. Other Events:	Fire hazard avoidance events, toxic and flammable gas alarm events, faulty-sensor-caused shutdowns, high/low temperature and pressure indicated shutdowns.

The following shall also be considered as emergency flaring events:
Sudden power failure at onshore source, sudden process problems including foaming within production units, process-computer problems at production and pollution control units, pollution control equipment breakdowns, power supply system breakdowns, pipeline or fuel line breakdowns.

Emergency events continue in duration until the operator gets the emergency situation under control including the emission exceedances, or shuts down the source, or reroutes production to a different source.

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RULE 360. EMISSIONS OF OXIDES OF NITROGEN FROM LARGE WATER HEATERS AND SMALL BOILERS. (Adopted 10/17/2002)

A. Applicability

This rule applies to any person who supplies, sells, offers for sale, installs, or solicits the installation of any new water heater, boiler, steam generator or process heater for use within the District with a rated heat input capacity greater than or equal to 75,000 British thermal units per hour up to and including 2,000,000 British thermal units per hour.

B. Definitions

See Rule 102 for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Boiler or Steam Generator" means any external combustion equipment fired with liquid and/or gaseous and/or solid fossil fuel, used to produce steam or heat water. These terms do not include any unfired waste heat recovery boiler that is used to recover sensible heat from a combustion device.

"Heat Output" means the enthalpy of the working fluid output of the unit.

"Process Heater" means any external combustion equipment fired with liquid and/or gaseous fuel and which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, baking, curing, cooking, calcinating or vitrifying or any fuel-fired degreasing of metal finishing equipment.

"Rated Heat Input Capacity" means the gross heat input specified on the nameplate of the unit or the burner.

"Unit" means a water heater, boiler, steam generator or process heater.

"Water Heater" means a device that heats water at a thermostatically controlled temperature for delivery on demand. Water is heated by the combustion of either liquid and/or gaseous fuel and withdrawn for use external to the vessel at pressures not exceeding 160 pounds per square inch gauge. The device includes the apparatus by which heat is generated and all controls and equipment necessary to prevent water temperature from exceeding 210^{o}F (99^{o}C).

C. Requirements – General

1. After October 17, 2003, a person shall not supply, sell, offer for sale, install or solicit the installation of any new unit with a rated heat input capacity greater than or equal to 75,000 British thermal units per hour and less than or equal to 400,000 British thermal units per hour in the District that does not meet the following criteria:

    a. Oxides of nitrogen emissions shall not exceed 40 nanograms per joule (93 pounds oxides of nitrogen per billion British thermal unit) of heat output, or 55 parts per million at 3.00 percent stack gas oxygen by volume on a dry basis, and

    b. The unit is certified in accordance with Section D.

2. After October 17, 2003, a person shall not supply, sell, offer for sale, install or solicit the installation of any new unit with a rated heat input capacity greater than 400,000 British thermal units per hour and less than or equal to 2,000,000 British thermal units per hour in the District that does not meet the following criteria:

   a. Oxides of nitrogen emissions shall not exceed 30 parts per million at 3.00 percent stack gas oxygen by volume on a dry basis and carbon monoxide emissions shall not exceed 400 parts per million at 3.00 percent stack gas oxygen by volume on a dry basis, and

   b. The unit is certified in accordance with Section D.

D. Compliance Certification

Every unit offered for sale within the District shall be certified by the Control Officer. On or before the applicable compliance date specified in Section C.1 or C.2, and thereafter at least 30 days prior to the date of proposed sale within the District, the manufacturer shall submit a compliance report for each new or modified unit by model. Certification shall be valid for three (3) years from the date of written approval by the Control Officer.

1. For each model certified, the manufacturer shall obtain from an independent testing laboratory a certification source test verifying compliance with the emission limits in Section C. Source tests shall be conducted on a randomly selected unit no more than 90 days prior to the date of proposed sale of the model in the District. Tests shall be conducted and reports shall be prepared according to Attachment A of this rule.

2. The compliance report shall contain the following information:

   a. General Information
      1) Name and address of manufacturer,
      2) Brand name,
      3) Model number, as it appears on the permanent nameplate, and
      4) Description of the model being certified, including burner type and rated heat input capacity.
   b. A report on the source test specified in Subsection D.1.
   c. A signed and dated statement attesting, under penalty of perjury, to the accuracy of all statements and information in the compliance report.

E. Identification of Compliant Units

The manufacturer shall display both the model number and the certification status, as determined in Section D of this rule, of an applicable unit on the permanent nameplate. If the permanent nameplate is obscured by packaging, the model number and certification status shall also appear on the packaging.

F. Enforcement

1. The Control Officer may periodically inspect distributors, retailers, and installers of water heaters located in the District and require such tests as are deemed necessary to ensure compliance with the provisions of this rule.

2. Oxides of nitrogen emissions are measured as nitrogen dioxide using Air Resources Board Method 100. Field emission tests shall be conducted on units fired at maximum rated capacity, or as near thereto as practicable.

Attachment A
Certification Source Tests

Certification source tests, as specified in Subsection D.1, shall be conducted according to "Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers," Protocol, South Coast Air Quality Management District, Source Testing and Engineering Branch, Applied Science and Technology.

RULE 361. SMALL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS. (Adopted January 17, 2008)

A. Applicability

This rule shall apply to any boiler, steam generator, and process heater with a rated heat input capacity of greater than 2 million British thermal unit per hour and less than 5 million British thermal unit per hour.

B. Exemptions

1. The provisions of this rule shall not apply to:

   a. process heaters, kilns, furnaces, and dryers, where the products of combustion come into direct contact with the material to be heated.

   b. equipment that does not require a permit under the provisions of Rule 202.G.

   c. existing units until March 15, 2016.

2. Section D requirements shall not apply to any dual fuel unit while forced to burn nongaseous fuel during times of public utility imposed natural gas curtailment. This exemption shall not exceed 168 cumulative hours of operation per calendar year excluding equipment testing time not exceeding 24 hours per calendar year.

C. Definitions

See Rule 102 for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"Annual Heat Input" means the total heat input of fuels burned by a unit in a calendar year, as determined from the higher heating value and cumulative annual usage of each fuel.

"Boiler or Steam Generator" means any combustion equipment permitted to be fired with liquid and/or gaseous and/or solid fossil fuel, used to produce steam or to heat water. Boiler or Steam Generator does not include any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment.

"Existing Unit" means any unit installed prior to January 17, 2008 which is not a modified unit as defined herein.

"Higher Heating Value (HHV)" means the total heat liberated per mass of fuel burned (British thermal unit per pound), when fuel and dry air at standard conditions undergo complete combustion and all resulting products are brought to their standard states at standard conditions.

"Modified Unit" means any unit that has a burner or burners replaced or where the unit is replaced in its entirety on or after January 17, 2008. Modified units are considered new units.

"New Unit" means any unit that is not an existing unit. A modified unit is considered a new unit.

"Process Heater" means any external combustion equipment permitted to be fired with liquid and/or gaseous fuel and/or solid fuel which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, baking, curing, cooking, calcinating or vitrifying or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment.

"Rated Heat Input Capacity" (million British thermal units per hour) means the heat input capacity specified on the manufacturer's nameplate of the combustion unit. If the combustion unit has been physically modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the modified maximum heat input shall be considered as the rated heat input. The new maximum heat input must be certified, in writing, by the manufacturer or installer and engineering calculations supporting the new maximum heat input rating must be submitted to and approved by the District. The District may require the modified maximum heat input capacity to be demonstrated by a fuel meter while operating the unit at maximum capacity.

"Unit" means any boiler, steam generator, or process heater.

"Utility Natural Gas" means natural gas supplied by a public gas utility company that meets Public Utility Commission quality pipeline standards as specified in *General Order 58-A.*

D. Requirements – Emission Standards

1. No owner or operator shall operate any new or modified unit or, after January 1, 2020, any existing unit, in excess of the following limits, subject to Section D.2 below:

    a. Oxides of Nitrogen emissions shall not exceed 30 parts per million by volume at 3 percent oxygen.

    b. Carbon Monoxide emissions shall not exceed 400 parts per million by volume at 3 percent oxygen.

2. The provisions of Section D.1 shall not apply to any existing unit that meets the following:

    a. The existing unit operates with an annual heat input, from all fuels, at or below 1.8 billion British thermal units per calendar year as verified by a District approved non-resettable temperature and pressure corrected totalizing fuel meter that is installed no later than December 31, 2016; and

    b. The owner or operator implements the District approved *Rule 361 Compliance Plan* required under Section K.3 for the life of the unit; and

    c. The owner or operator demonstrates to the Control Officer compliance with the requirements specified in Sections F, G, H and I.

E. Requirement - Loss of Low Use Exemption

Any owner or operator of any existing unit claiming the Section D.2 low use exemption where the unit's annual heat input in any calendar year exceeds 1.8 billion British thermal units shall comply with the following:

1. Within 120 days after the end of the calendar year during which the unit exceeded 1.8 billion British thermal units of annual heat input, submit an Authority to Construct permit application for installation of control equipment or a replacement unit; and

2. Within 365 days after the end of the calendar year during which the unit exceeded 1.8 billion British thermal units of annual heat input, demonstrate to the Control Officer and maintain compliance with Section D.1 for the life of the unit; and

3. Maintain compliance with requirements of Section D.2 until compliance with Section D.1 is achieved.

F. Requirements – Compliance Determination

1. Any owner or operator of any unit fired exclusively on utility natural gas and any unit subject to Section D.2 shall be tuned-up pursuant to the requirements of Section I. The District may, at its discretion, require any owner or operator of any unit subject to this rule to perform a source test per the test methods listed in Section J. An owner or operator may choose to comply with this section by performing District-approved source testing in lieu of tune-ups.

2. Except for units subject to Section D.2, any owner or operator of any unit not fired exclusively on utility natural gas shall perform District-approved source testing not less than once every 24 months using the source test methods listed in Section J. After the third required compliance source test, the District may, at its discretion, allow the owner or operator of the unit to perform tune-ups in lieu of source testing per the requirements of Section I.

3. All emission determinations shall be made in the as-found operating condition, except no compliance determination shall be established during unit start up, shutdown, or under breakdown conditions. Start up or shutdown intervals shall not last longer than is necessary to reach stable temperatures and conditions.

4. Any owner or operator of any unit found not to be in compliance with Section D.1 requirements as a result of the tune-up procedure shall notify the District in writing within 7 days. The notification shall include a copy of the *Rule 361 Tune-Up Report*, the actions taken to get the unit into compliance, and the next steps to achieve compliance. Failure to bring the unit into compliance with the requirements of Section D.1 within 15 days of the initial tune-up attempt shall constitute a violation of this rule.

G. Requirements – Recordkeeping

All owners or operators of units subject to this Rule shall keep all records listed below onsite for a period of five years and be made available to District upon request.

1. Maintain *Rule 361 Tune-Up Reports* and test-firing records.

2. Source test reports.

3. For existing units subject to Section D.2:

   a. Monthly and annual fuel use logs for each fuel type.

   b. Meter calibration records.

4. Records of emergency non-gaseous fuel use per Section B.2. These records shall include the dates, operating hours, and volumes of non-gaseous fuel used and documentation of fuel sulfur content.

H. Requirements – Reporting

1. The records required pursuant to Section G shall be submitted to the District by March 1st for the prior calendar year.

2. Source test reports shall be submitted to the District within 45 days of test completion.

I. Requirements – Unit Tuning

The owner or operator of any unit subject to the tune-up requirements of this rule shall comply with the following requirements:

1. Perform tuning at least twice per year, (at intervals from 4 to 8 months apart) in accordance with the procedures described in the attached District Rule 361 Tune-Up Procedures. Units subject to Section D.1 emission standards shall follow the procedure requirements to measure oxides of nitrogen and carbon monoxide levels using a District-approved calibrated portable analyzer.

2. If the unit does not operate throughout a continuous six-month period within a calendar year, then only one tune-up is required for that calendar year.

3. No tune-up is required during a calendar year for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use but once test firing is completed it shall be shutdown. If test firing exceeds 24 hours per year, then tune-ups shall follow the requirements of Section I.1.

J. Requirements - Source Testing

1. The owner or operator of any unit subject to this Rule shall perform an initial source test on each unit at the time of installation and modification to verify compliance with the oxides of nitrogen and the carbon monoxide emission limits of Section D.1.a and D.1.b. After the initial source test, source tests shall be performed biennially to demonstrate compliance with Section D.1.a and Section D.1.b. For facilities with more than 10 units subject to Section D.1.a and Section D.1.b requirements, the Control Officer may, on a case-by-case basis, approve an alternate source test schedule for up to one half of the units every other year. Such a request shall be submitted with the Plan required in Section J.2.

2. The owner or operator of any unit subject to this Rule shall submit a Source Test Plan to the District and obtain District written approval prior to the start of any source test. The draft Plan shall be filed with the District at least 30 days before the start of each source test. The District shall be notified of the date of source testing a unit at least 14 days prior to testing to arrange a mutually agreeable test date.

3. Source testing shall be performed by a source test contractor certified by the Air Resources Board. District required source testing shall not be performed by an owner or operator unless approved by the Control Officer.

4. The owner or operator of any unit subject to source test requirements of this rule shall use the test methods and procedures below:

    a. Oxides of Nitrogen: Environmental Protection Agency Method 10 or Air Resources Board Method 100.

    b. Carbon monoxide: Environmental Protection Agency Method 7E or Air Resources Board Method 100.

    c. Fuel rate: District-approved metering system, calibrated within 60 calendar days of the test date. Public Utility Company regulated fuel meters relied on by operators for testing may be allowed an alternative calibration schedule upon approval by the Control Officer. Results must be corrected for pressure and temperature to standard conditions.

    d. Determination of the stack gas smoke-spot number using one of the following methods:

        1. American Society of Testing and Materials ASTM D 2156-94 (2003), “Standard Test Method for Smoke Density in Flue Gases from Burning Distillate Fuels”, American Society of Testing and Materials International.

        2. Bacharach True Spot® Smoke Test Kit.

3. Alternative methods for determining the stack gas smoke-spot number approved by the Control Officer in writing.

e. Any alternative source test method approved in writing by the Control Officer that is found to be comparable in accuracy to the procedure in this Section and approved by the Air Resources Board and the Environmental Protection Agency.

f. At a minimum, three 30 minute test runs shall be performed for compliance with Sections J.4.a and J.4.b. The average concentration from the three test runs shall be used for determining compliance.

K. Compliance Schedule

The owner or operator of any unit subject to this rule shall meet the following compliance schedule:

1. Existing units shall apply for a Permit to Operate by April 16, 2008 in accordance with Rule 202.

2. Obtain an Authority to Construct permit prior to installation or modification of any new or modified unit.

3. The owner or operator of any unit requesting the low use exemption in Section D.2 shall comply with the requirement to submit a *Rule 361 Compliance Plan* for District review and approval prior to March 15, 2016. The District approved fuel meters shall be installed by no later than December 31, 2016. The *Rule 361 Compliance Plan* shall include:

   a. The company name, District Facility ID number, facility address, current operating permit number, facility contact information.

   b. A list of all subject units with their rated heat input capacity, District Device ID number, anticipated annual heat input.

   c. For gaseous fuels, the proposed non-resettable temperature and pressure corrected totalizing fuel meter(s) specifications. For liquid fuels, the proposed non-resettable totalizing fuel meter(s) specifications. For solid fossil fuels, provide the methods of fuel throughput monitoring to be used that will achieve the same level of fuel monitoring accuracy as the meters required for the measurement of gaseous and liquid fuels described above. Include the fuel meter manufacturer, model number, technical brochure, and manufacturer recommended calibration schedule.

   d. For each unit, identify which Rule 361 Tuning Procedure will be used (see Attachment).

4. On or before January 30, 2019, the owner or operator of any existing unit shall:

   a. For units subject to Section D.1 emission standards, apply for an Authority to Construct permit.

   b. For units subject to the Section D.2 low use provision, provide the annual fuel heat input data for years 2017 and 2018.

5. On or before January 1, 2020, the owner or operator of any unit shall demonstrate final compliance with this Rule.

L. Rule Effective Date

This rule is effective January 17, 2008.

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ATTACHMENT

SBCAPCD Rule 361 Tune-Up Procedures[1]

PROCEDURE A
Equipment Tuning Procedure for Forced Draft-Fired Equipment[2]

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant regulations and requirements.

As used in this procedure, the requirement to measure Oxides of Nitrogen (NO_x) readings is only required if the unit being tuned is subject to the requirements of Section D.1 (i.e., 30 ppmvd at 3 % oxygen [O_2]). Only District-approved portable NO_x and CO analyzers may be used. The analyzer shall be calibrated per ASTM Test Method D-6522-00 (reapproved 2005) prior to each use. Calibration records shall be submitted as part of the *Rule 361 Tune-Up Report*. Analyzer readings shall be taken pursuant to ASTM Test Method D-6522-00 (reapproved 2005). Steps in the Tune-Up Procedure below not applicable to specific units may be omitted.

1. Operate the unit at the firing rate most typical of normal operation. If the unit experiences significant load variations during normal operation, operate it at its average firing rate.

2. At this firing rate, record stack gas temperature, oxygen concentration, and carbon monoxide concentration and NO_x concentration (also record the smoke-spot number[3] for liquid fuels only) and the observed flame condition after unit operation stabilizes at the firing rate selected. Note these readings in the *Rule 361 Tune-Up Report* as the *"Initial As-Found Conditions"*. If the excess oxygen in the stack gas is at the lower end of the range of typical minimum values[4], and if the carbon monoxide emissions are low and there is not smoke, the unit is probably operating at near optimum efficiency - at this particular firing rate. However, complete the remaining portion of this procedure to determine whether still lower oxygen levels are practical. For units subject to Section D.1, note whether the NO_x and carbon monoxide values comply with the applicable limits.

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1. These Rule 361 tune-up procedures differ from SCAQMD Rule 1146.1 and Ventura Rule 74.15.1 (e.g., NO_x (as NO_2) readings are required to be taken in addition to the CO reading if the unit is subject to Section D.1).

2. This tuning procedure is based on a tune-up procedure developed by KVB, Inc. for the EPA.

3. The smoke-spot number can be determined with American Society of Testing and Materials ASTM Test Method D-2156-94 (2003), "Standard Test Method for Smoke Density Flue Gases from Burning Distillate Fuels," American Society of Testing and Materials International or with the Bacharach method.

4. Typical minimum oxygen levels for boilers at high firing rates are:
   a. For natural gas: 0.5% - 3%
   b. For liquid fuels: 2% - 4%

3. Increase combustion air flow to the furnace until stack gas oxygen levels increase by one to two percent over the level measured in Step 2. As in Step 2, record the stack gas temperature, oxygen concentration, carbon monoxide concentration, NO_x concentration (also record the smoke-spot number[5] for liquid fuels only), and the observed flame condition for these higher oxygen levels after boiler operation stabilizes.

4. Decrease combustion air flow until the stack gas oxygen concentration is at the level measured in Step 2. From this level gradually reduce the combustion air flow, in small increments. After each increment, record the stack gas temperature, oxygen concentration, carbon monoxide concentration, NO_x concentration, smoke-spot number (for liquid fuels) and the observed flame condition.

5. Continue to reduce combustion air flow stepwise, until one of these limits in reached:

   a. Unacceptable flame conditions - such as flame impingement on furnace walls or burner parts, excessive flame carryover, or flame instability.

   b. Stack gas carbon monoxide concentrations greater than 400 ppmvd or NO_x concentrations greater than 30 ppmvd (as corrected to 3% O_2).

   c. Smoking at the stack.

   d. Equipment-related limitations - such as low windbox/furnace pressure differential, built in air-flow limits, etc.

6. Develop an oxygen/carbon monoxide curve (for gaseous fuels) or oxygen/smoke curve (for liquid fuels) similar to those shown in Figures 1 and 2 using the excess oxygen, carbon monoxide or smoke-spot number data obtained at each combustion air flow setting.

7. From the curves prepared in Step 6, find the stack gas oxygen levels where the carbon monoxide emissions or smoke-spot number equal the following values:

Fuel	Measurement	Value
Gaseous	carbon monoxide Emissions	400 parts per million
#1 & #2 oils	smoke-spot number	number 1
#4	oil smoke-spot number	number 2
#5	oil smoke-spot number	number 3
Other oils	smoke-spot number	number 4

   The above conditions are referred to as carbon monoxide or smoke threshold, or as the minimum excess oxygen level.

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5. The smoke-spot number can be determined with American Society of Testing and Materials ASTM Test Method D-2156-94 (2003), "Standard Test Method for Smoke Density Flue Gases from Burning Distillate Fuels," American Society of Testing and Materials International or with the Bacharach method.

Compare this minimum value of excess oxygen to the expected value provided by the combustion unit manufacturer. If the minimum level found is substantially higher than the value provided by the combustion unit manufacturer, burner adjustments can probably be made to improve fuel and air mixing, thereby allowing operation with less air.

8. Add 0.5 to 2.0 percent to the minimum excess oxygen level found in Step 7 and reset burner controls to operate automatically at this higher stack gas oxygen level. This margin above the minimum oxygen level accounts for fuel variations, variations in atmospheric conditions, load changes, and nonrepeatability or play in automatic controls.

9. If the load of the combustion unit varies significantly during normal operation, repeat Steps 1-8 for firing rates that represent the upper and lower limits of the range of the load. Because control adjustments at one firing rate may affect conditions at other firing rates, it may not be possible to establish the optimum excess oxygen level at all firing rates. If this is the case, choose the burner control settings that give best performance over the range of firing rates. If one firing rate predominates, settings should optimize conditions at that rate.

10. Verify that the new settings can accommodate the sudden changes that may occur in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack. If any of the conditions in Step 4 result, reset the combustion controls to provide a slightly higher level of excess oxygen at the affect firing rates. Next, verify these new settings in a similar fashion. Then make sure that the final control settings are recorded at steady-state operating conditions for future reference.

11. Take a final combustion analysis for NO_x concentration, carbon monoxide concentration and oxygen concentration. Note these readings, as well as the stack temperature and flame condition, in the *Rule 361 Tune-Up Report* as the *"Final As-Tuned Conditions"*. Confirm that the final settings result in compliance with the regulatory limits. **If compliance with Section D.1 is not achievable, takes actions and provide notification to the District pursuant to the requirements of Section F.4**.

12. When the above checks and adjustments have been made prepare a *Rule 361 Tune-Up Report*. The report shall include all recorded data and combustion analysis data for the unit; the manufacturer, model number and serial number of the portable NOx/CO analyzer; the name, title, signature, company name, and contact information of person performing the tune-up; and date the tune-up was performed. The *Rule 361 Tune-Up Report* shall clearly indicate the *"Initial As-Found Conditions"* and the *"Final As-Tuned Conditions"* and shall (if applicable) state whether Section D.1 emission standards for NO_x and carbon monoxide were met. Calibration records shall be submitted as part of the *Rule 361 Tune-Up Report*.

NOTE

The owner/operator may propose an alternative tuning procedure that meets the same basic requirements of the procedure outlined above for District review and approval. The District may assess fees to reimburse its costs associated with the review of the alternative procedure using either Section I.C.d or Section III.C of Rule 210. District approval of the alternative tuning procedure must be obtained prior to its use.

Figure 1

Oxygen/Carbon Monoxide Characteristic Curve

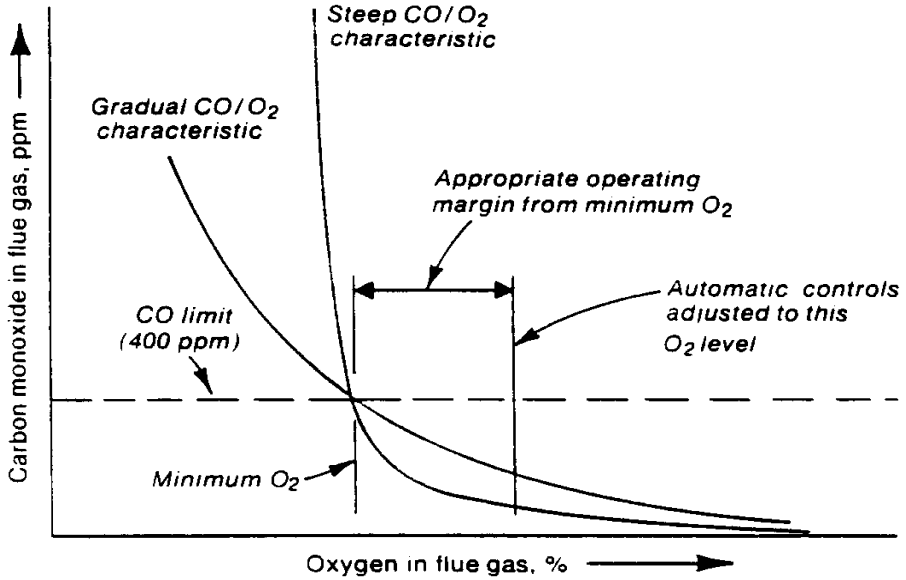
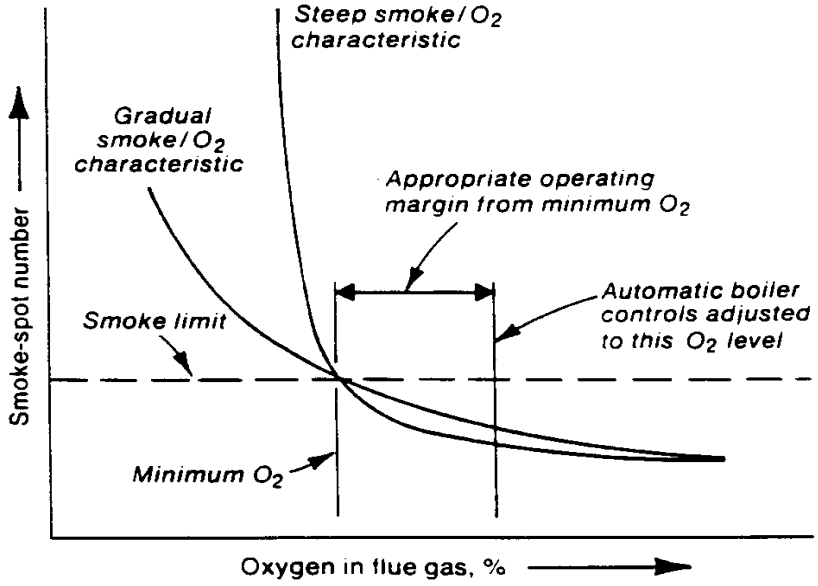


Figure 2

Oxygen/Smoke Characteristic Curve



PROCEDURE B
Equipment Tuning Procedure for Natural Draft-Fired Equipment

Nothing in this Equipment Tuning Procedure shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division) the Federal Occupational Safety and Health Administration, or other relevant regulations and requirements.

As used in this procedure, the requirement to measure Oxides of Nitrogen (NO_x) readings is only required if the unit being tuned is subject to the requirements of Section D.1 (i.e., 30 ppmvd at 3% oxygen [O_2]). Only District-approved portable NO_x and CO analyzers may be used. The analyzer shall be calibrated per ASTM Test Method D-6522-00 (reapproved 2005) prior to each use. Calibration records shall be submitted as part of the *Rule 361 Tune-Up Report*. Analyzer readings shall be taken pursuant to ASTM Test Method D-6522-00 (reapproved 2005). Steps in the Tune-Up Procedure below not applicable to specific units may be omitted.

1. Preliminary Analysis

    a. Verify that the boiler, steam generator, or process heater (unit) is operating at the lowest pressure or temperature that will satisfy load demand. This pressure or temperature will be used as a basis for comparative combustion analysis before and after tune-up.

    b. Verify that the unit operates for the minimum number of hours and days necessary to perform the work required.

    c. Verify that the size of air supply openings is in compliance with applicable codes and regulations. Air supply openings must be fully open when the burner is firing and air flow must be unrestricted.

    d. Verify that the vent is in good condition, properly sized and free from obstruction.

    e. Perform an as-found (i.e., prior to any adjustments) combustion analysis for carbon monoxide concentration, NO_x concentration, oxygen concentration and measure the stack temperature and note the flame condition at both high and low fire, if possible. Note these readings in the *Rule 361 Tune-Up Report* as the *"Initial As-Found Conditions"*. Also record the following:

        (1) Inlet fuel pressure at burner at high and low firing rates.

        (2) Pressure above draft hood or barometric damper at high, medium, and low firing rates.

        (3) Steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the unit.

        (4) Inlet fuel use rate if meter is available.

2. CHECKS AND CORRECTIONS

a. Clean all dirty burners or burner orifices. Verify that fuel filters and moisture traps are in place, clean, and operating properly. Confirm proper location and orientation of burner diffuser spuds, gas canes, etc. Replace or repair all damaged or missing burner parts.

b. Remove external and internal sediment and scale from heating surfaces.

c. Verify that the necessary water or process fluid treatment is being used. Confirm flushing and/or blowdown schedule.

d. Repair all leaks. In addition to the high-pressure lines, check the blow-off, drain, safety valve, bypass lines, and, if used, the feed pump.

3. SAFETY CHECKS

a. Test primary and secondary low water level controls.

b. Check operating and limit pressure and temperature controls.

c. Check pilot safety shut off operation.

d. Check safety valve pressure setting and verify that the setting is consistent with unit load requirements.

e. Check limit safety control and spill switch.

4. ADJUSTMENTS

Perform the following checks and adjustments on a warm unit at high fire:

a. Adjust unit to fire at the maximum inlet fuel use rate: record fuel manifold pressure.

b. Adjust draft and/or fuel pressure to obtain acceptable, clean combustion at high, medium, and low firing rates. The carbon monoxide value should not exceed 400 parts per million at 3% oxygen.

c. Verify that unit light-offs are smooth and safe. Perform a reduced fuel pressure test at both high and low firing rates in accordance with the manufacturer's instructions.

d. Check and adjust the modulation controller. Verify proper, efficient, and clean combustion through the range of firing rates.

When optimum performance has been achieved, record all data.

5. FINAL TEST

After adjustments, perform a final combustion analysis for carbon monoxide concentration, NO_x concentration, oxygen concentration, and measure the stack temperature and note the flame condition on the warm unit at high, medium, and low firing rates, if possible. Note these readings in the *Rule 361 Tune-Up Report* as the "*Final As-Tuned Conditions*". Also record the following:

i. Inlet fuel pressure at burner at high and low firing rates.

ii. Pressure above draft hood or barometric damper at high, medium, and low firing rates.

iii. Steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the unit.

iv. Inlet fuel use rate if meter is available.

If the unit is subject the Section D.1 limits for NO_x (30 ppmvd at 3% O_2) and carbon monoxide (400 ppmvd at 3% O_2), confirm that the final settings result in compliance with the regulatory limits. **If compliance is not achievable, takes actions and provide notification to the District pursuant to the requirements of Section F.4**.

6. RULE 361 TUNE-UP REPORT

When the above checks and adjustments have been made, prepare a *Rule 361 Tune-Up Report*. The report shall include all recorded data and combustion analysis data for the unit; the manufacturer, model number and serial number of the portable NO_x/CO analyzer; the name, title, signature, company name and contact information of person performing the tune-up; and date the tune-up was performed. The *Rule 361 Tune-Up Report* shall clearly indicate the "*Initial As-Found Conditions*" and the "*Final As-Tuned Conditions*" and shall (if applicable) state whether Section D.1 emission standards for NO_x and CO were met. Calibration records shall be submitted as part of the *Rule 361 Tune-Up Report.*

NOTE

The owner or operator may propose an alternative tuning procedure that meets the same basic requirements of the procedure outlined above for review and approval by the Control Officer. The District may assess fees to reimburse its costs associated with the review of the alternative procedure using either Section I.C.d or Section III.C of Rule 210. Control Officer approval of the alternative tuning procedure must be obtained in writing prior to its use.

8/10/95

8-10-95

RULE 370. POTENTIAL TO EMIT -- LIMITATIONS FOR PART 70 SOURCES (Adopted June 15, 1995)

A. Applicability

1. General Applicability:

This rule shall apply to any stationary source which would, if it did not comply with the limitations set forth in this rule, have the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants or a major source of hazardous air pollutants (HAPs) and which meets one of the following conditions:

a. In every 12-month period, the actual emissions of the stationary source are less than or equal to the emission limitations specified in section D.1 below; or

b. In every 12-month period, at least 90 percent of the emissions from the stationary source are associated with an operation limited by any one of the alternative operational limits specified in section G.1 below.

2. Stationary Source with De Minimis Emissions:

The recordkeeping and reporting provisions in sections E, F and G below shall not apply to a stationary source with de minimis emissions or operations as specified in either subsection a. or b. below:

a. In every 12-month period, the stationary source emits less than or equal to the following quantities of emissions:

1) 5 tons per year of a regulated air pollutant (excluding HAPs),
2) 2 tons per year of a single HAP,
3) 5 tons per year of any combination of HAPs, and
4) 20 percent of any lesser threshold for a single HAP that the United States Environmental Protection Agency (U.S. EPA) may establish by rule.

b. In every 12-month period, at least 90 percent of the stationary source's emissions are associated with an operation for which the throughput is less than or equal to one of the quantities specified in subsections 1) through 9) below:

1) 1,400 gallons of any combination of solvent-containing materials but no more than 550 gallons of any one solvent-containing material, provided that the materials do not contain the following: methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichloroethylene;
2) 750 gallons of any combination of solvent-containing materials where the materials contain the following: methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichloroethylene, but not more than 300 gallons of any one solvent-containing material;
3) (a) 1,200 gallons of solvent-containing (or, volatile organic compound containing) material, including no more than 480 gallons of solvent-containing (or, volatile organic compound containing) material that also contains any hazardous air pollutants, used at a paint spray unit(s);

(b) The volatile organic compound/solvent content of the material used at a paint spray unit(s) shall not exceed 1000 gms solvent per liter coating, as applied, less water and exempt compounds.

4) 4,400,000 gallons of gasoline dispensed from equipment with Phase I and II vapor recovery systems;
5) 470,000 gallons of gasoline dispensed from equipment without Phase I and II vapor recovery systems;
6) 1,400 gallons of gasoline combusted;
7) 16,600 gallons of diesel fuel combusted;
8) 500,000 gallons of distillate oil combusted, or
9) 71,400,000 cubic feet of natural gas combusted.

Within 30 days of a written request by the Air Pollution Control District (APCD) or the U.S. EPA, the owner or operator of a stationary source not maintaining records pursuant to sections E or G shall demonstrate that the stationary source's emissions or throughput are not in excess of the applicable quantities set forth in subsection a. or b. above.

3. Provision for Air Pollution Control Equipment:

The owner or operator of a stationary source may take into account the operation of air pollution control equipment on the capacity of the source to emit an air contaminant if the equipment is required by Federal, State, or APCD rules and regulations or permit terms and conditions. The owner or operator of the stationary source shall maintain and operate such air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. This provision shall not apply after January 1, 1999 unless such operational limitation is federally enforceable or unless the APCD Board specifically extends this provision and it is submitted to the U.S. EPA. Such extension shall be valid unless, and until, the U.S. EPA disapproves the extension of this provision.

4. List of Sources to Which This Rule Applies

Within three years of the effective date of Regulation XIII (Part 70 Operating Permit Program), the Air Pollution Control District shall maintain and make available to the public upon request, for each stationary source subject to this rule, information identifying the provisions of this rule applicable to the source.

5. Compliance by Sources with Pre-construction Permit Conditions

This rule shall not relieve any stationary source from complying with requirements pertaining to any otherwise applicable preconstruction permit, or to replace a condition or term of any preconstruction permit, or any provision of a preconstruction permitting program, e.g.,Prevention of Significant Deterioration, New Source Review or Authority to Construct. This does not preclude issuance of any preconstruction permit with conditions or terms necessary to ensure compliance with this rule.

B. Exemptions

1. Stationary Source Subject to Regulation XIII (Part 70 Operating Permit Program)

This rule shall not apply to the following stationary sources:

a. Any stationary source whose actual emissions, throughput, or operation, at any time

after the effective date of this rule, is greater than the quantities specified in sections D.1 or G.1 below and which meets both of the following conditions:

1) The owner or operator has notified the APCD at least 30 days prior to any exceedance that s/he will submit an application for a Part 70 permit, or otherwise obtain federally-enforceable permit limits, and
2) A complete Part 70 permit application is received by the APCD, or the permit action to otherwise obtain federally-enforceable limits is completed, within 12 months of the date of notification.

However, the stationary source may be immediately subject to applicable federal requirements, including but not limited to, a maximum achievable control technology (MACT) standard.

b. Any stationary source that has applied for a Part 70 permit in a timely manner and in conformance with Regulation XIII, and is awaiting final action by the APCD and U.S. EPA.

c. Any stationary source required to obtain an operating permit under Regulation XIII for any reason other than being a major source.

d. Any stationary source with a valid Part 70 permit.

Notwithstanding subsections b. and d. above, nothing in this section shall prevent any stationary source which has had a Part 70 permit from qualifying to comply with this rule in the future in lieu of maintaining an application for a Part 70 permit or upon rescission of a Part 70 permit if the owner or operator demonstrates that the stationary source is in compliance with the emissions limitations in section D.1 below or an applicable alternative operational limit in section G.1 below.

2. Stationary Source with a Limitation on Potential to Emit:

This rule shall not apply to any stationary source which has a valid operating permit with federally-enforceable conditions or other federally-enforceable limits limiting its potential to emit to below the applicable threshold(s) for major sources of regulated air pollutants and HAPs as defined in section C (Definitions) below.

C. Definitions

All terms shall retain the definitions provided under 40 CFR Part 70.2 or APCD Rule 1301, as applicable, unless otherwise defined herein.

"12-month period" means a period of twelve consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month.

"Actual Emissions" means the emissions of a regulated air pollutant from a stationary source for every 12-month period. Valid continuous emission monitoring data or source test data shall be preferentially used to determine actual emissions. In the absence of valid continuous emissions monitoring data or source test data, the basis for determining actual emissions shall be: throughputs of process materials; throughputs of materials stored; usage of materials; data provided in manufacturer's product specifications, material volatile organic compound (VOC) content reports or laboratory analyses; other information required by this rule and applicable APCD, State and Federal regulations; or information

requested in writing by the APCD. All calculations of actual emissions shall use U.S. EPA, California Air Resources Board (CARB) or APCD approved methods, including emission factors and assumptions.

"Alternative Operational Limit" means a limit on a measurable parameter, such as hours of operation, throughput of materials, use of materials, or quantity of product, as specified in Section G, Alternative Operational Limit and Requirements.

"Emission Unit" means any article, machine, equipment, operation, contrivance or related groupings of such that may produce and/or emit any regulated air pollutant or hazardous air pollutant.

"Federal Clean Air Act" means the federal Clean Air Act (CAA) as amended in 1990 (42 U.S.C. section 7401 et seq.) and its implementing regulations.

"Hazardous Air Pollutant" means any air pollutant listed pursuant to section 112(b) of the federal Clean Air Act.

"Major Source of Regulated Air Pollutants (excluding HAPs)" means a stationary source that emits or has the potential to emit a regulated air pollutant (excluding HAPs) in quantities equal to or exceeding the following threshold:

100 tons per year (tpy) of any regulated air pollutant.

Fugitive emissions of these pollutants shall be considered in calculating total emissions for stationary sources in accordance with 40 CFR Part 70.2 "Definitions- Major source(2)."

"Major Source of Hazardous Air Pollutants" means a stationary source that emits or has the potential to emit 10 tons per year or more of a single HAP listed in section 112(b) of the CAA, 25 tons per year or more of any combination of HAPs, or such lesser quantity as the U.S. EPA may establish by rule. Fugitive emissions of HAPs shall be considered in calculating emissions for all stationary sources. The definition of a major source of radionuclides shall be specified by rule by the U.S. EPA .

"Part 70 Permit" means an operating permit issued to a stationary source pursuant to an interim, partial or final Title V program approved by the U.S. EPA.

"Potential to Emit" means the maximum capacity of a stationary source to emit a regulated air pollutant based on its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation is federally enforceable.

"Process Statement" means an annual report on permitted emission units from an owner or operator of a stationary source certifying under penalty of perjury the following: throughputs of process materials; throughputs of materials stored; usage of materials; fuel usage; any available continuous emissions monitoring data; hours of operation; and any other information required by this rule or requested in writing by the APCD.

"Regulated Air Pollutant" means the following air pollutants as regulated under the federal Clean Air Act:

a. Oxides of nitrogen and volatile organic compounds;

b. Any pollutant for which a national ambient air quality standard has been promulgated;

c. Any Class I or Class II ozone depleting substance subject to a standard promulgated under Title VI of the federal Clean Air Act;

d. Any pollutant that is subject to any standard promulgated under section 111 of the federal Clean Air Act; and

e. Any pollutant subject to a standard or requirement promulgated pursuant to section 112 of the federal Clean Air Act, including:

1) Any pollutant listed pursuant to section 112(r) (Prevention of Accidental Releases) shall be considered a regulated air pollutant upon promulgation of the list.

2) Any HAP subject to a standard or other requirement promulgated by the U.S. EPA pursuant to section 112(d) or adopted by the APCD pursuant to 112(g) and (j) shall be considered a regulated air pollutant for all sources or categories of sources: (i) upon promulgation of the standard or requirement, or (ii) 18 months after the standard or requirement was scheduled to be promulgated pursuant to section 112(e)(3).

3) Any HAP subject to a APCD case-by-case emissions limitation determination for a new or modified source, prior to the U.S. EPA promulgation or scheduled promulgation of an emissions limitation shall be considered a regulated air pollutant when the determination is made pursuant to section 112(g)(2). In case-by-case emissions limitation determinations, the HAP shall be considered a regulated air pollutant only for the individual source for which the emissions limitation determination was made.

D. Emission Limitations

1. Unless the owner or operator has chosen to operate the stationary source under an alternative operational limit specified in section G.1 below, no stationary source subject to this rule shall emit in every 12-month period more than the following quantities of emissions:

a. 50 percent of the major source thresholds for regulated air pollutants (excluding HAPs),

b. 5 tons per year of a single HAP,

c. 12.5 tons per year of any combination of HAPs, and

d. 50 percent of any lesser threshold for a single HAP as the U.S. EPA may establish by rule.

2. The Air Pollution Control Officer shall evaluate a stationary source's compliance with the emission limitations in section D.1 above annually. In performing the evaluation, the Air Pollution Control Officer shall consider any annual process statement submitted pursuant to Section F, Reporting Requirements. In the absence of valid continuous emission monitoring data or source test data, actual emissions shall be calculated using emissions factors approved by the U.S. EPA , CARB, or the Air Pollution Control Officer.

3. Unless the owner or operator has chosen to operate the stationary source under an alternative operational limit specified in section G.1 below, the owner or operator of a stationary source subject to this rule shall obtain any necessary permits prior to commencing any physical or operational change or activity which will result in actual emissions that exceed the limits specified in section D.1 above.

E. Recordkeeping Requirements

Immediately after the date of adoption of this rule, the owner or operator of a stationary source subject to this rule shall comply with any applicable recordkeeping requirements in this section. However, for a stationary source operating under an alternative operational limit, the owner or operator shall instead comply with the applicable recordkeeping and reporting requirements specified in Section G, Alternative Operational Limit and Requirements. The recordkeeping requirements of this rule shall not replace any recordkeeping requirement contained in an operating permit or in an APCD, State, or Federal rule or regulation.

1. A stationary source previously covered by the provisions in section A.2 above shall comply with the applicable provisions of section E above and sections F and G below if the stationary source exceeds the quantities specified in section A.2.a above.

2. The owner or operator of a stationary source subject to this rule shall keep and maintain records for each permitted emission unit or groups of permitted emission units sufficient to determine actual emissions. Such information shall be summarized in a monthly log, maintained on site for five years, and be made available to APCD, CARB, or U.S. EPA staff upon request.

   a. Coating/Solvent Emission Unit

   The owner or operator of a stationary source subject to this rule that contains a coating/solvent emission unit or uses a coating, solvent, ink or adhesive shall keep and maintain the following records:

   1) A current list of all coatings, solvents, inks and adhesives in use. This list shall include: information on the manufacturer, brand, product name or code, VOC content in grams per liter or pounds per gallon, HAPS content in grams per liter or pounds per gallon, or manufacturer's product specifications, material VOC content reports or laboratory analyses providing this information;
   2) A description of any equipment used during and after coating/solvent application, including type, make and model; maximum design process rate or throughput; control device(s) type and description (if any); and a description of the coating/solvent application/drying method(s) employed;
   3) A monthly log of the consumption of each solvent (including solvents used in clean-up and surface preparation), coating, ink and adhesive used; and
   4) All purchase orders, invoices, and other documents to support information in the monthly log.

   b. Organic Liquid Storage Unit

   The owner or operator of a stationary source subject to this rule that contains a permitted organic liquid storage unit shall keep and maintain the following records:

   1) A monthly log identifying the liquid stored and monthly throughput; and
   2) Information on the tank design and specifications including control equipment.

   c. Combustion Emission Unit

   The owner or operator of a stationary source subject to this rule that contains a combustion emission unit shall keep and maintain the following records:

1) Information on equipment type, make and model, maximum design process rate or maximum power input/output, minimum operating temperature (for thermal oxidizers) and capacity, control device(s) type and description (if any) and all source test information; and
2) A monthly log of hours of operation, fuel type, fuel usage, fuel heating value (for non-fossil fuels; in terms of BTU/lb or BTU/gal), percent sulfur for fuel oil and coal, and percent nitrogen for coal.

d. Emission Control Unit

The owner or operator of a stationary source subject to this rule that contains an emission control unit shall keep and maintain the following records:

1) Information on equipment type and description, make and model, and emission units served by the control unit;
2) Information on equipment design including where applicable: pollutant(s) controlled; control effectiveness; maximum design or rated capacity; inlet and outlet temperatures, and concentrations for each pollutant controlled; catalyst data (type, material, life, volume, space velocity, ammonia injection rate and temperature); baghouse data (design, cleaning method, fabric material, flow rate, air/cloth ratio); electrostatic precipitator data (number of fields, cleaning method, and power input); scrubber data (type, design, sorbent type, pressure drop); other design data as appropriate; all source test information; and
3) A monthly log of hours of operation including notation of any control equipment breakdowns, upsets, repairs, maintenance and any other deviations from design parameters.

e. General Emission Unit

The owner or operator of a stationary source subject to this rule that contains an emission unit not included in subsections a, b or c above shall keep and maintain the following records:

1) Information on the process and equipment including the following: equipment type, description, make and model; maximum design process rate or throughput; control device(s) type and description (if any);
2) Any additional information requested in writing by the Air Pollution Control Officer;
3) A monthly log of operating hours, each raw material used and its amount, each product produced and its production rate; and
4) Purchase orders, invoices, and other documents to support information in the monthly log.

F. Reporting Requirements

1. At the time of annual renewal of a permit to operate under Regulation II (Permits), each owner or operator of a stationary source subject to this rule shall submit to the APCD a process statement. The statement shall be signed by the owner or operator and certify that the information provided is accurate and true.

2. For the purpose of determining compliance with this rule, this requirement shall not apply to stationary sources which emit in every 12-month period less than or equal to the following quantities:

a. For any regulated air pollutant (excluding HAPs), 25 tons per year including a regulated air pollutant,

b. 2.5 tons per year of a single HAP,

c. 6.25 tons per year of any combination of HAPs, and

d. 25 percent of any lesser threshold for a single HAP as the U.S. EPA may establish by rule.

3. A stationary source previously covered by provisions in section F.2 above shall comply with the provisions of section F.1 above if the stationary source exceeds the quantities specified in section F.2.

4. Any additional information requested by the Air Pollution Control Officer under section F.1 above shall be submitted to the Air Pollution Control Officer within 30 days of the date of request.

G. Alternative Operational Limit and Requirements

The owner or operator may operate the permitted emission units at a stationary source subject to this rule under any one alternative operational limit, provided that at least 90 percent of the stationary source's emissions in every 12-month period are associated with the operation(s) limited by the alternative operational limit.

1. Upon choosing to operate a stationary source subject to this rule under any one alternative operational limit, the owner or operator shall operate the stationary source in compliance with the alternative operational limit and comply with the specified recordkeeping and reporting requirements.

a. The owner or operator shall report within 24 hours to the Air Pollution Control Officer any exceedance of the alternative operational limit.

b. The owner or operator shall maintain all purchase orders, invoices, and other documents to support information required to be maintained in a monthly log. Records required under this section shall be maintained on site for five years and be made available to APCD or U.S. EPA staff upon request.

c. Gasoline Dispensing Facility Equipment with Phase I and II Vapor Recovery Systems

The owner or operator shall operate the gasoline dispensing equipment in compliance with the following requirements:

1) No more than 7,000,000 gallons of gasoline shall be dispensed in every 12-month period.
2) A monthly log of gallons of gasoline dispensed in the preceding month with a monthly calculation of the total gallons dispensed in the previous 12 months shall be kept on site.
3) A copy of the monthly log shall be submitted to the Air Pollution Control Officer at the time of annual permit renewal. The owner or operator shall certify that the log is accurate and true.

d. Degreasing or Solvent-Using Unit

The owner or operator shall operate the degreasing or solvent-using unit(s) in compliance with the following requirements:

1) (a) If the solvents do not include methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichloroethylene, no more than 5,400 gallons of any combination of solvent-containing materials and no more than 2,200 gallons of any one solvent-containing material shall be used in every 12-month period,.

(b) If the solvents include methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichloroethylene, no more than 2,900 gallons of any combination of solvent-containing materials and no more than 1,200 gallons of any one solvent-containing material shall be used in every 12-month period.

2) A monthly log of amount and type of solvent used in the preceding month with a monthly calculation of the total gallons used in the previous 12 months shall be kept on site.

3) A copy of the monthly log shall be submitted to the Air Pollution Control Officer at the time of annual permit renewal. The owner or operator shall certify that the log is accurate and true.

e. Paint Spraying Unit

The owner or operator shall operate the paint spraying unit(s) in compliance with the following requirements:

1) (a) The total usage rate of all volatile organic compound-containing materials at the paint spray units shall not exceed 19,200 gallons in every 12-month period, with no more than 1,920 gallons of volatile organic compound-containing materials that also contain any hazardous air pollutant in every 12-month period.

(b) The volatile organic compound/solvent content of the material used at a paint spray unit(s) shall not exceed 1000 gms solvent per liter of coating, as applied, less water and exempt compounds.

2) A monthly log of the gallons of VOC-containing materials used in the preceding month with a monthly calculation of the gallons of volatile organic compound-containing materials that also contain hazardous air pollutants used in the previous 12 months, and of the total gallons of volatile organic compound-containing materials used in the previous 12 months, shall be kept on site.

3) A copy of the monthly log shall be submitted to the Air Pollution Control Officer at the time of annual permit renewal. The owner or operator shall certify that the log is accurate and true.

f. Diesel-Fueled Emergency Standby Engine(s) with Output Less Than 1,000 Brake Horsepower

The owner or operator shall operate the emergency standby engine(s) in compliance with the following requirements:

1) For a federal ozone area designation of attainment, unclassified, transitional, or moderate nonattainment, the emergency standby engine(s) shall not operate more than 5,200 hours in every 12-month period and shall not use more than 265,000 gallons of diesel fuel in every 12-month period.

2) A monthly log of hours of operation, gallons of fuel used, and a monthly calculation of the total hours operated and gallons of fuel used in the previous 12 months shall be kept on site.

3) A copy of the monthly log shall be submitted to the Air Pollution Control Officer at the time of annual permit renewal.. The owner or operator shall certify that the log is accurate and true.

2. The owner or operator of a stationary source subject to this rule shall obtain any necessary permits prior to commencing any physical or operational change or activity which will result in an exceedance of an applicable operational limit specified in section G.1 above.

H. Violations

1. Failure to comply with any of the applicable provisions of this rule shall constitute a violation of this rule. Each day during which a violation of this rule occurs is a separate offense.

2. A stationary source subject to this rule shall be subject to applicable federal requirements for a major source, including Regulation XIII (APCD Title V rules) when the conditions specified in either subsections a. or b. below, occur:

a. Commencing on the first day following every 12-month period in which the stationary source exceeds a limit specified in section D.1 above and any applicable alternative operational limit specified in section G.1, above, or

b. Commencing on the first day following every 12-month period in which the owner or operator can not demonstrate that the stationary source is in compliance with the limits in section D.1 above or any applicable alternative operational limit specified in section G.1 above.

I. Applicability Review

The owner or operator of a stationary source may request the APCD (Attn: Engineering Manager) to review the applicability of this rule to the source. Such request shall be submitted with appropriate support materials, as follows:

1. Sources subject to Section D (Emission Limitations) will submit appropriate information providing data for "actual emissions" from the source, as specified in Section C of this rule. All work performed by the Air Pollution Control District staff to process such request shall be cost-reimbursable and subject to the provisions of the Air Pollution Control District Rule 210.I.C.

2. Sources subject to Section G (Alternative Operational Limit and Requirements) will submit information providing data on "operational parameters" appropriate for the source as listed in Section E of this rule. A fee for work performed by the Air Pollution Control District staff to process such request shall be charged to the source, based on the provisions listed in the Air Pollution Control District Rule 210.II.B.

J. Effective Date of Rule

This rule becomes effective on the date of its adoption by the APCD Board.

RULE 401. AGRICULTURAL AND PRESCRIBED BURNING. (Adopted 10/18/1971, readopted 10/23/1978, revised 10/2/1990, and 5/16/2002)

A. Applicability

This rule applies to all agricultural and prescribed burning conducted in Santa Barbara County.

The provisions of this Rule implement the Smoke Management Guidelines for Agricultural and Prescribed Burning, promulgated under Article I, Subchapter 2, Title 17, California Code of Regulations and as amended in January 2001.

B. Definitions

See Rule 102 for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

1. **"Air quality"** means the characteristics of the ambient air as indicated by state ambient air quality standards which have been adopted by the state board pursuant to Section 39606 of the California Health and Safety Code and by National Ambient Air Quality Standards which have been established pursuant to Sections 108 and 109 of the federal Clean Air Act pertaining to criteria pollutants and Section 169A of the federal Clean Air Act pertaining to visibility.

2. **"Ambient air"** means that portion of the atmosphere, external to buildings, to which the general public has access.

3. **"Burn Plan"** means an operational plan for managing a specific fire to achieve resource benefits and specific management objectives. The plan includes, at a minimum, the project objectives, contingency responses for when the fire is out of prescription with the smoke management plan, the fire prescription (including smoke management component), and a description of the personnel, organization, and equipment.

4. **"Burn project"** means an active or planned prescribed burn or a naturally ignited wildland fire managed for resource benefit.

5. **"Designated agency"** means any agency designated by the Air Resources Board as having authority to issue agricultural or prescribed burning permits. The District may request such a designation for an agency. The U.S. Department of Agriculture Forest Service and the California Department of Forestry and Fire Protection are so designated within their respective areas of jurisdiction.

6. **"Fire protection agency"** means any agency with the responsibility and authority to protect people, property, and the environment from fire, and having jurisdiction within a district or region.

7. **"Forty-eight hour forecast"** means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 48 hours from the day of the prediction. The prediction shall indicate a degree of confidence.

8. **"Land manager"** means any federal, state, local, or private entity, or his or her designee, who administers, directs, oversees, or controls the use of public or private land, including the application of fire to the land.

9. **"Marginal burn day"** means a day when limited amounts of prescribed burning, for individual projects in specific areas for limited times, is not prohibited by the state board and burning is authorized by the District consistent with this rule.

10. **"Ninety-six hour trend"** means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 96 hours from the day of the prediction.

11. **"No-burn day"** means any day on which agricultural burning, including prescribed burning, is prohibited by the Air Resources Board or the District.

12. **"Permissive-burn day," or "burn day"** means any day on which agricultural burning, including prescribed burning, is not prohibited by the state board and burning is authorized by the District consistent with this rule.

13. **"Pre-fire fuel treatment"** means any of several vegetation removal techniques that can reasonably be employed prior to prescribed burning to reduce the amount of vegetation that would otherwise be consumed in a prescribed fire.

14. **"Prescribed burning"** means the planned application of fire to vegetation to achieve any specific objective on lands selected in advance of that application. The planned application of fire may also include natural or accidental ignition.

15. **"Prescribed fire"** means any fire ignited by management actions to meet specific objectives, and may include naturally ignited wildland fires managed for resource benefits.

16. **"Residential burning"** means burning for the disposal of the combustible or flammable solid waste of a single-or two-family dwelling on its premises.

17. **"Seventy-two hour outlook"** means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 72 hours from the day of the prediction.

18. **"Smoke management plan"** means a document prepared for each fire by land managers or fire managers that provides the information and procedures required in Section D.

19. **"Smoke management prescription"** means measurable criteria that define conditions under which a prescribed fire may be ignited, guide selection of appropriate management responses, and indicate other required actions. Prescription criteria may include, but are not limited to, minimizing smoke impacts, and safety, economic, public health, environmental, geographic, administrative, social, or legal considerations such as complying with Health and Safety Code section 41700, public nuisance statute.

20. **"Smoke Management Program"** means the program defined in the Smoke Management Guidelines for Agricultural and Prescribed Burning, promulgated under Article I, Subchapter 2, Title 17, California Administrative Code.

21. **"Smoke sensitive areas"** are populated areas and other areas where the District determines that smoke and air pollutants can adversely affect public health or welfare. Such areas can include, but are not limited to, towns and villages, campgrounds, trails, and other populated recreational areas, hospitals, nursing homes, schools, roads, airports, public events, shopping centers, and mandatory Class I areas.

22. **"Wildfire"** means an unwanted wildland fire.

23. **"Wildland"** means an area where development is generally limited to roads, railroads, power lines, and widely scattered structures. Such land is not cultivated (i.e., the soil is disturbed less frequently than once in 10 years), is not fallow, and is not in the United States Department of

Agriculture Conservation Reserve Program. The land may be neglected altogether or managed for such purposes as wood or forage production, wildlife, recreation, wetlands, or protective plant cover.

24. **"Wildland fire"** means any non-structural fire, other than prescribed fire, that occurs in the wildland.

25. **"Wildland/urban interface"** means the line, area, or zone where structures and other human development meet or intermingle with the wildland.

C. General Requirements – Agricultural and Prescribed Burning

1. Burn Permits

a. No person shall knowingly set or allow agricultural or prescribed burning unless he or she has a valid permit from the District or designated agency.

b. A valid burn permit is also required from the fire protection agency that has jurisdiction in the area of the proposed burn project.

c. Burning conducted pursuant to permits issued by the Control Officer or a designated agency shall comply with all the conditions specified on the permits. Failure to abide by permit conditions is a violation of section 48152 of the California Health and Safety Code and District Regulation IV.

d. All permits issued by the Control Officer or designated agencies for agricultural and prescribed burning must contain the following words or words of similar import: "This permit is valid only on those days during which agricultural burning, including prescribed burning, is not prohibited by the Air Resources Board or by the District pursuant to section 41855 of the California Health and Safety Code, and when burning on the lands identified has been approved by the District."

e. Permits issued by designated agencies and fire protection agencies shall be subject to the rules and regulations of the District.

f. The Control Officer may issue special permits for agricultural and prescribed burning on days designated as no-burn days if the denial of such permit would threaten imminent and substantial economic loss. In authorizing such burning, the District may limit the amount of material that can be burned in any one day such that the burning is not likely to cause or contribute to exceedances of air quality standards or result in smoke impacts to smoke sensitive areas.

g. Each applicant for a permit shall provide information required by the designated agency for fire protection purposes.

h. Each applicant for a permit shall provide information requested by the District.

2. Registration and Reporting

a. All persons desiring to conduct prescribed burning in the District in any particular calendar year shall register their planned burn projects with the District by May 15th of each year. Project updates or additions to this registration process are required to be submitted throughout the year. The burn registration shall include: the name of the permittee, including a contact person with phone number; a listing of planned projects; project location and total acreage to be burned.

b. Designated agencies shall submit a written report to the District on agricultural and prescribed burning conducted pursuant to this rule by February 1st of each year. The report shall include the estimated tonnage or acreage burned in agricultural burning operations and the estimated tonnage burned in prescribed burning operations during the prior calendar year.

c. Designated agencies shall issue agricultural burning permits for open burning in agricultural operations only.

3. Permissive Burn, Marginal Burn, or No-Burn Days

a. Agricultural burning is permitted only on days designated as permissive burn days by the Air Resources Board. Such designations will be announced by 3:00 p.m. every day whether the following day is a permissive burn day, a marginal burn day, or a no-burn day, or whether the decision will be announced the following day. If conditions preclude a forecast until the next day, the decision will be announced by the Air Resources Board by 0745. Such notices are based on Meteorological Criteria for Regulating Agricultural Burning and Prescribed burning, set forth in the Air Resources Board's Smoke Management Guidelines for Agricultural and Prescribed Burning.

b. Burning of empty sacks or containers which contained pesticides or other toxic substances is permitted on no-burn days providing the sacks or containers are within the definition in Rule 102 of Open Burning in Agricultural Operations.

c. A marginal burn day may be declared if meteorological conditions approach criteria for permissive burn days in the Air Resources Board's Smoke Management Guidelines for Agricultural and Prescribed Burning, and smoke impacts are not expected. On marginal burn days the Control Officer may authorize limited amounts of prescribed burning for individual projects when smoke impacts to smoke sensitive areas are not expected as a result of that burning. Agricultural and residential burning is prohibited on any day during which prescribed burning is authorized and on any marginal burn day.

d. Agricultural burning, including prescribed burning, is prohibited on no-burn days, except as specified in Section C.1 of this rule.

4. Daily Burn Authorization System

a. A burn authorization shall be requested and obtained from the Control Officer, on a daily basis, before any prescribed burning may commence. To request a burn authorization, a burn operator shall submit a District-approved smoke management plan.

b. Burn authorizations for prescribed burning shall be granted on a first come – first served basis. To avoid conflict in burn planning, the Control officer will authorize no more than one burn on the same day in the same general area. The Control Officer may immediately rescind a burn authorization if meteorological conditions change such that adverse air quality impacts are likely, or if burning by a fire protection agency to abate an imminent fire hazard is required suddenly and unexpectedly in the same area.

c. Smoke management plan conditions must be met at the time of burn ignition and must be expected to be met for the duration of the burn, regardless of the issuance of a burn authorization. The burn operator is responsible for ensuring that all conditions listed in the smoke management plan are met prior to ignition of the burn.

d. Multi-day burns shall require District authorization on a daily basis to continue with the burn.

e. Agricultural burning shall take place only on days permitted by public fire protection agencies having jurisdiction for purposes of fire control or prevention.

f. Waste materials to be burned in open fires in agricultural operations, including prescribed burning, shall be free of waste not conforming to the definition of "Open Burning in Agricultural Operations" in Rule 102. The following materials are not considered agricultural waste: tires, rubbish, tar paper, plastic, treated wood, construction/demolition debris, or material containing asbestos, weeds, shrubs and trees from non-productive areas such as along roads and around buildings, and waste foreign to land being cleared for agricultural use. Weeds, shrubs and trees in pastures or crop production areas or in fences which are around pastures or crop production areas or on land being cleared for the growing of crops or animals are considered to be agricultural waste.

g. Waste materials to be burned in agricultural operations, including prescribed burning, shall be ignited as rapidly as practicable within applicable fire control restrictions.

h. Waste materials to be burned in open fires in agricultural operations shall be arranged so as to burn with a minimum of smoke. Materials shall be loosely stacked to allow maximum drying in preparation for burning so as to provide good combustion. The materials shall be free of dirt and soil to the extent that such dirt or soil will not hinder burning nor be carried into the air as particulate matter, and shall be reasonably free of visible surface moisture.

i. Waste materials to be burned in open fires in agricultural operations shall have been dried for the minimum periods listed below. These periods include the period from drying or cutting to the day of burning.

    1) Six (6) weeks for trees and large branches;

    2) Three (3) weeks for prunings and small branches;

    3) Ten (10) days for wastes from field crops.

j. The Control Officer may restrict the amount of agricultural burning conducted on any day to selected sequentially numbered permits on specified days. The goal of this option is to ensure that a major portion of the total tonnage of agricultural waste is not ignited at one time during adverse conditions.

k. Agricultural burning may commence at any time after the announcement of a burn-day, but in no case shall it commence before sunrise. No additional waste material or ignition fuel shall be ignited or added to any fire after two hours before sunset. This subsection does not apply to prescribed burning.

l. The wind direction at the burning site shall be such that the smoke will not cause a public nuisance.

m. The materials to be burned shall be ignited only by use of ignition devices approved by the Control Officer. Tires, tar paper, plastic, dirty oils, and similar materials shall not be used.

D. Special Requirements - Prescribed Burning and Prescribed Fires in Wildland and Wildland/Urban Interface Area

1. The land manager shall submit a smoke management plan to the District for all burn projects. Smoke management plans must contain, at a minimum, the following information:

    a. Project name, location, size (acres), types, and amounts of material to be burned;

    b. Expected duration of the fire from ignition to extinction;

    c. Identification of responsible personnel, including telephone contacts; and

    d. Identification and location of all smoke sensitive areas;

    e. Particulate matter emissions and Environmental Protection-Agency approved calculation method;

    f. When a natural ignition occurs on a no-burn day, the fire may be managed as a prescribed fire if the Control Officer determines the following:

        i) For smoke management purposes, that the burn can be managed for resource benefit; or
        ii) For periods of less than 24 hours, a reasonable effort has been made to contact the District, or if the District is not available, the Air Resources Board;
        iii) After 24 hours, the District has been contacted, or if the District is not available, the Air Resources Board has been contacted and concurs that the burn can be managed for resource benefit.

    A "no-go" decision does not necessarily mean that the fire must be extinguished, but that the fire cannot be managed as a prescribed fire;

    g. Identification of vegetation conditions and burn limitations to minimize smoke, including requirements for materials to be piled, where possible;

    h. If applicable, California Department of Fish and Game statement certifying that the burn is desirable and proper;

    i. The burn project shall not occur unless all conditions and requirements stated in the Smoke Management Plan are met prior to ignition on the day of the burn event, the Air Resources Board and the District have both declared the day to be a burn day, and the Control Officer has authorized the burn on the day of the burn;

    j. Public notification procedures, including requirement for appropriate signage at burn sites, and for reporting of public smoke complaints; and

    k. Procedures for permittees to report public smoke complaints to the District.

2. For prescribed burn projects greater than 10 acres in size or estimated to produce more than 1 ton of particulate matter, the land manager shall submit a smoke management plan that contains at a minimum, the information contained in Section D.1 and the following additional information:

    a. A smoke management plan within 72 hours of the start of any naturally ignited wildland fire managed for resource benefits that is expected to exceed 10 acres in size;

b. Identification of method of ignition;

3. For prescribed burn projects greater than 100 acres in size or estimated to produce more than 10 tons of particulate matter, the land manager shall submit a smoke management plan that contains at a minimum, the information contained in Section D. 1 and D.2 and the following additional information:

   a. Identification of meteorological conditions necessary for burning;

   b. The smoke management criteria the land manager will use for making burn ignition decisions;

   c. Projections, including a map, of where the smoke from burns is expected to travel, both day and night;

   d. Specific contingency actions (such as fire suppression or containment) that will be taken if smoke impacts occur or meteorological conditions deviate from those specified in the smoke management plan;

   e. An evaluation of alternatives to burning considered; if an analysis of alternatives has been prepared as part of the environmental documentation required for the burn project pursuant to the National Environmental Policy Act (NEPA) or the California Environmental Quality Act (CEQA), as applicable, the analysis shall be attached to the smoke management plan in satisfaction of this requirement; and

4. If smoke may impact smoke sensitive areas, smoke management plans shall include appropriate monitoring, that may include visual monitoring, ambient particulate matter monitoring or other monitoring approved by the District, as required by the District for the following burn projects:

   a. Projects greater than 250 acres;

   b. Projects that will continue burning or producing smoke overnight;

   c. Projects conducted near smoke sensitive areas; or

   d. Where the Control Officer determines monitoring is necessary for public health and safety.

5. The land manager shall coordinate daily with the District or the Air Resources Board for multi-day burns that may impact smoke sensitive areas, to affirm that the burn project remains within the conditions specified in the smoke management plan, or whether contingency actions are necessary.

6. Alternate thresholds to those specified in Sections D.1, D.2, D.3, and D.4 may be specified by the District where the Control Officer determines such alternative thresholds are necessary to protect public health.

7. The land manager conducting a prescribed burn shall ensure that all conditions and requirements stated in the smoke management plan are met on the day of the burn event and prior to ignition.

8. The land manager shall submit a post-burn smoke management evaluation to the District for fires greater than 250 acres within 30 days of project completion. The evaluation shall address whether the smoke management plan objectives were met. The evaluation shall also address the following:

a. What were the meteorological conditions (wind speed, direction, temperature, relative humidity (percent), prior to, during and following the burn?

b. Did the weather meet the prescription?

c. Were there smoke impacts? If so, where? How were the impacts monitored and documented?

d. Were there complaints related to smoke impacts from the burn? If so, list them. How were the complaints responded to and remedied?

e. What went wrong, if anything, with the weather or smoke? How can this be improved upon for future burns?

9. Vegetation to be burned shall be in a condition that will minimize the smoke emitted during combustion when feasible, considering fire safety and other factors.

10. Material to be burned shall be piled where possible, unless good silvicultural practices or ecological goals dictate otherwise.

11. Piled material to be burned shall be prepared so that it will burn with a minimum of smoke.

12. The permit applicant shall file with the District a statement from the Department of Fish and Game certifying that the burn is desirable and proper if the burn is to be done primarily for improvement of land for wildlife and game habitat. The Department of Fish and Game may specify the amount of brush treatment required, along with any other conditions it deems appropriate.

E. Enforcement Procedures

1. Designated fire protection agencies or the District shall enforce the provisions of this Rule by not allowing agricultural burning unless the person responsible for the burn has a valid agricultural burning permit.

2. Those fire protection agencies having the required authority shall issue a notice of violation or citation or shall order other corrective action when permit violation occurs.

3. Smoke complaints or other air pollution complaints not involving permit violations, or for any violation found by an agency not having authority to take enforcement action, shall be referred to the District for investigation

F. Meteorological Criteria for Regulating Agricultural and Prescribed Burning

The meteorological criteria for the South Central Coast Air Basin at Section 80210 of Title 17 of the California Code of Regulations, Subchapter 2, Smoke Management Guidelines for Agricultural and Prescribed Burning are incorporated herein by reference.

G. Compliance Date

The provisions of this Rule shall be effective on May 16, 2002.

5/23/79

~~for maximum penalties and recovery procedures. Any violation of the provisions of the Regulation regarding agricultural burning will be subject to the enforcement provisions of Section 41852 Chapter 3, Part 4, Division 26, of the Health and Safety Code.~~

RULE 403. BURNING PERMIT FOR NON-BURNING DAYS: REPORT REQUIREMENTS.

The District shall require regular reports of permits issued authorizing agricultural burning on non-burning days. The report shall include the number of such permits issued, the date of issuance of each permit, the person or persons to whom the permit was issued, and any other information requested by the District.

5/23/79

5-23-79

RULE 505. BREAKDOWN CONDITIONS.

A. Definition:

For the purpose of this Rule, a breakdown condition means an unforeseeable failure or malfunction of 1) any air pollution control equipment or related operating equipment which causes a violation of an emission limitation or restriction prescribed by these Rules and Regulations, or by State law, or 2) any in-stack continuous monitoring equipment, provided such failure or malfunction:

1. Is not the result of neglect or disregard of any air pollution control law or rule or regulation;

2. Is not the result of an intentional or negligent act or omission on the part of the owner or operator;

3. Is not the result of improper maintenance;

4. Does not constitute a nuisance as defined in Section 41700 of the Health and Safety Code;

5. Is not a recurrent breakdown of the same equipment.

B. Breakdown Procedures:

1. The owner or operator shall notify the District of any occurrence which constitutes a breakdown condition; such notification shall identify the time, specific location, equipment involved, and (to the extent known) the cause(s) of the occurrence, and shall be given as soon as reasonably possible, after its detection by such owner or operator, or his agents or employees, but in any case not later than four (4) hours after the start of the next regular business day.

2. The District shall establish written procedures and guidelines, including appropriate forms and logging of initial reports, investigation, and enforcement follow-up, to ensure that all reported breakdown occurrences are handled uniformly to final disposition.

3. Upon receipt of notification pursuant to sub-paragraph B.1., the District shall promptly investigate and determine whether the occurrence constitutes a breakdown condition. If the District determines that the occurrence does not constitute a breakdown condition, the District may take appropriate enforcement action, including, but not limited

to seeking fines, an abatement order, or an injunction against further operation.

C. Disposition of Short-Term Breakdown Conditions:

1. An occurrence which constitutes a breakdown condition, and which persists only until the end of the production run or 24 hours, whichever is sooner (except for continuous monitoring equipment, for which the period shall be ninety-six (96) hours), shall constitute a violation of the applicable emission limitation or restriction of these Rules and Regulations; however, the Control Officer may elect to take no enforcement action if the owner or operator demonstrates to his satisfaction that a breakdown condition exists and the following requirements are met:

a. The owner or operator submits the notification required by subparagraph B.1; and

b. The owner or operator immediately undertakes appropriate corrective measures and comes into compliance or elects to shut down for corrective measures before commencement of the next production run or within 24 hours, whichever is sooner (except for continuous monitoring equipment for which the period shall be ninety-six (96) hours). If the owner or operator elects to shut down rather than come into immediate compliance, he must nonetheless take whatever steps are possible to minimize the impact of the breakdown within the 24-hour period.

c. The breakdown does not interefere with the attainment and maintenance of any national (primary) ambient air quality standard.

2. An occurence which constitutes a short-term breakdown condition shall not persist longer than the end of the production run or 24 hours, whichever is sooner (except for continuous monitoring equipment, for which the period shall be ninety-six (96) hours, unless the owner or operator has ~~requested~~ obtained an emergency variance.

D. Reporting Requirements:

Within one week after a breakdown occurrence has been corrected, the owner or operator shall submit a written report to the Control Officer which includes:

1. A statement that the breakdown condition has been corrected, together with the date of correction and proof or demonstration of compliance;

2. A specific statement of the reasons or causes for the occurrence;

3. A description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future. The Control Officer may, at the request of the owner or operator, for good cause, extend up to thirty (30) days the deadline for submitting the description required by this subparagraph;

4. An estimate of the amount of emissions caused by the occurrence; and

5. Pictures of the equipment or controls which failed, if available.

E. Burden of Proof:

The burden shall be on the owner or operator of the

source to provide sufficient information to demonstrate that a breakdown did occur. If the owner or operator fails to provide sufficient information, the District shall undertake appropriate enforcement action.

F. Failure to Comply with Reporting Requirements:

Any failure to comply with the reporting requirements established in subparagraphs B.1 and D.1 through D.5 of this Rule shall constitute a separate violation of this Rule.

G. False Claiming of Breakdown Occurrence:

It shall constitute a separate violation of this Rule for any person to file with the District a report which is willfully false, or claims without probable cause, that an occurrence is a breakdown occurrence.

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5/23/79

COMPANY _____

Date	Location	Reported by Person	Phone No.	Time Reported	Time Corrected	Equipment Failure	Monitor Alarm

5/23/79

RULE 601. GENERAL.

(Adopted 3/24/1974, revised 8/1975, readopted 10/23/1978, revised 6/15/1981)

Notwithstanding any other provisions of these Rules and Regulations, this Regulation shall apply within the District to control the emissions of air contaminants during Stage 1, Stage 2, and Stage 3 air pollution episodes, and air pollution disasters.

SBAPCD RULE 602 EPISODES/DISASTERS
LAST REVISED 06/13/81

RULE 602. EPISODES/DISASTERS.

(Adopted 3/24/1974, revised and readopted 8/1975, readopted 10/23/1978, revised 6/15/1981)

A. Impact

1. Stage 1 Episode - Persons with special health problems should take precautions against exposure. Children of school age should refrain from excessive physical exercise. First steps in abatement action plans must be implemented.

2. Stage 2 Episode - Precautions of paragraph one emphasized. Abatement actions must be taken with a minimum of delay to reduce the pollution concentration.

3. Stage 3 Episode - Extensive actions must be taken to prevent exposure of people to the pollutant concentrations.

4. Air Pollution Disaster - A substantial number of persons are suffering or likely to suffer incapacitating effects from the air pollution concentrations.

B. Episode Stage Criteria and Declaration

1. The Air Pollution Control Officer shall declare the appropriate episode stage (Rule 602 E, F or G) when the pollutant concentrations shown in the table below are reached or are expected to be reached.

	Averaging Time	**Stage 1**	**Stage 2**	**Stage 3**
Photochemical Oxidant, as Ozone	1 Hour	0.20 ppm	0.35 ppm	0.50 ppm for one hour & predicted to persist for 1 additional hour
Carbon Monoxide	1 Hour	40 ppm	75 ppm	100 ppm for one hour & predicted to persist for 1 additional hour
	4 Hours	25 ppm	45 ppm	60 ppm
	8 Hours	15 ppm	30 ppm	40 ppm

Particulate Matter	24 Hours	375 ug/m^3	625 ug/m^3	875 ug/m^3
Sulfur Dioxide	1 Hour	0.5 ppm	1.0 ppm	2.0 ppm
	24 Hours	0.2 ppm	0.7 ppm	0.9 ppm

2. Air Pollution Disaster (State of Emergency)

When it is determined by medical authorities or local officials that a substantial number of persons are suffering or are likely to suffer incapacitating effects from air pollution, regardless of measured pollutant concentration, and analysis of meteorological and air quality data by the Air Resources Board or the District indicates that the condition is likely to continue or recur, the Chairman or the Executive Officer of the Air Resources Board shall confer with the Director of the Office of Emergency Services (OES) and they shall jointly recommend to the Governor that an air pollution disaster (State of Emergency) be declared.

C. Episode Notifications

1. Following the prediction or declaration of a first, second, or third-stage episode, the Control Officer shall communicate notification to:

a. Appropriate elected officials.

b. The press, radio stations and television stations.

c. Sources of air contaminants specified in Rule 603 which requires alert status in preparation for implementation of prearranged emission reduction plans.

d. Local public health officials and hospitals.

e. School officials.

f. Local and state law enforcement agencies.

g. Air pollution control officers with the South Coast Air Basin and South Central Coast Air Basin.

h. The California Air Resources Board.

i. Public safety personnel, who have responsibilities for, or interests in, air pollution control.

j. District personnel.

k. Other parties as deemed necessary by the Control Officer.

2. The notice of prediction or declaration of a first-, second-, or third-stage episode shall include the following information:

a. The specific level predicted or achieved.

b. The contaminant for which the declaration is made.

c. The geographical area to be affected, or currently affected.

d. The geographic location where the air contaminants are measured.

3. Whenever the Control Officer predicts that a first-, second-, or third-stage episode will occur on the next day, he shall announce such a prediction not later than 4:00 p.m., when possible. Such predictions shall be public records and shall be made available to the public, press, radio, television and other mass media of communication.

D. Termination of Episodes

The Control Officer shall declare the termination of the appropriate episode whenever the concentration of an air contaminant which caused the declaration of such episode has been verified to be below standards set forth in Rule 602.B 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 episode. The Control Officer shall immediately communicate the declaration of the termination of the episode in the manner provided in Rule 602.C. for the declaration of episodes.

E. First Stage Episode Actions

When a first-stage episode is declared, the Control Officer shall take the following actions:

1. The notifications required by Rule 602.C.

2. Radio and television stations shall be requested to announce or display at least once each hour, the Control Officer's declaration of a first-stage episode and to:

a. Advise the public that those individuals with special health problems should follow the precautions recommended by their physicians.

b. Request the public to stop all unnecessary driving.

c. Request the public to operate all privately owned vehicles on a pool basis.

d. Request all employers to activate employee car pools.

3. Notify members of the public who telephone the District's headquarters.

4. Ban the burning of any combustible refuse at any location within the District.

5. Insure that any person operating or maintaining any governmental, industrial, commercial or business establishment which emits hydrocarbons, nitrogen oxides or any of the contaminants named in Rule 602.B. and any person operating any gasoline-fueled fleet vehicles takes the necessary preliminary steps for the action which will be required by the predeveloped plans should a second-stage episode be declared.

F. Second-Stage Episode Actions

When a second-stage episode is declared, the Control Officer shall take the following actions, in addition to the actions taken for Stage 1:

1. Suspend programs which involve outdoor physical exertion by participants using public parks or public recreational facilities in receptor areas. Such programs which are for adult participants in scheduled athletic events with paid attendance are expected.

2. Abatement actions:

a. Request the public to avoid all but emergency use of motor vehicles in emission source and receptor areas.

b. Request the public to avoid receptor areas.

c. Instruct participants in the traffic abatement plan in emission source and receptor areas to implement Stage 2 abatement plan provisions.

d. Instruct participants in the stationary source curtailment plan to implement Stage 2 curtailment plan provisions in emission source and receptor areas.

3. Inspect as many stationary sources as possible, pursuant to Rule 604.

4. Request radio and television stations to announce or display, at least once each hour, the pertinent facts and inform the public of the actions taken in accordance with the provisions of this Rule.

G. Third Stage Episode Actions

The following actions shall be taken upon the Control Officer's declaration of a third-stage episode in addition to the actions taken for Stages 1 and 2:

1. Abatement Action:

a. Instruct participants in the traffic abatement plan in emission source and receptor areas to implement Stage 3 abatement plan provisions, except for operations required for emergency reasons.

b. Instruct participants in the stationary source curtailment plan in emission source and receptor areas to implement Stage 3 curtailment plan provisions, except for operations necessary for emergency reasons.

c. During carbon monoxide (CO) episodes, instruct combustion sources of CO emissions to shut down in emission source and receptor areas.

d. During oxidant episodes, prohibit in emission source areas commercial and industrial spray painting, and other activities such as tar roofing, asphalt mixing and pouring and surface coating involving use of substantial quantities of volatile organic material.

e. If appropriate and feasible, request the public to evacuate the receptor area.

2. Implement Air Pollution Control District Source inspection plans, pursuant to Rule 604.

H. Air Pollution Disaster (State of Emergency) Actions

1. Notwithstanding the episode actions required of the Air Pollution Control Officer in this Regulation, only the Governor of the State of California shall declare an Air Pollution Disaster and order the institution of any health protection and abatement actions he considers necessary.

2. On declaration of an Air Pollution Disaster (State of Emergency), the Air Pollution Control Officer shall continue maximum Stage 3 abatement actions in accordance with this Regulation; the Air Pollution Control District shall commit all its available resources to the service of the Governor.

SBAPCD RULE 603 EMERGENCY EPISODE PLANS
LAST REVISED 06/15/81

RULE 603. EMERGENCY EPISODE PLANS.

(Adopted 3/24/1974, revised 8/1975, readopted 10/23/1978 and 6/15/1981)

Stationary source curtailment plans and traffic abatement plans shall be prepared by business, commercial, industrial and governmental establishments in the Santa Barbara Air Quality Management Area as follows:

A. Stationary Source Curtailment Plans

1. Applicability

The owner or operator of any business, commercial, industrial, or governmental facility or activity listed herein shall submit to the Control Officer plans to curtail or cease operations causing stationary source air contaminants in such activity: Stationary sources which can be expected to emit 100 tons or more per year of hydrocarbons, nitrogen oxides, carbon monoxide or particulate matter. "Stationary source" as used in this regulation means nonvehicular sources as defined in Section 39043 of the Health and Safety Code.

2. Contents

The plans required by subparagraph 1. of this paragraph shall include the following information:

a. Name and location of the facility.

b. Type of equipment that emits air pollutants and number of units of each type.

c. Total emissions of each pollutant in pounds per operating day from each type of equipment including any significant variations occurring seasonally and on weekends and holidays.

d. Procedures for briefing employees regarding the curtailment plan requirements.

e. Procedures for notifying employees and individuals responsible for emissions curtailment actions to be taken at each episode stage.

f. The names and telephone numbers of a person and alternates to contact in case curtailment is necessary.

g. The name of the official responsible for implementation of the plan.

h. The total number of employees at the facility during each shift on a normal weekday and on a major national holiday.

i. The amount of energy (gas, fuel oil and electricity) used on a normal weekday and on a major national holiday.

j. As a minimum, the following information regarding abatement actions:

i. Identification of equipment for which emissions are to be curtailed at each episode stage and expected reduction of emissions of each pollutant in pounds per operating day.

ii. Time required to accomplish the emission curtailment at each stage.

iii. Reductions in fuel oil, gas and electrical consumption at each stage.

k. For first-stage episodes, the measures to voluntarily curtail equipment emitting air pollutants.

l. For second-stage episodes:

i. The measures to curtail as much as possible, without damaging any equipment used for production or distribution, equipment operations that emit air pollutants specific to the type of episode and, in the case of oxidant episodes, the equipment operations that emit hydrocarbons and nitrogen oxides.

ii. The measures to postpone operations which can be postponed until after the episode.

iii. The measures described in subparagraph k. of this paragraph.

m. For third-stage episodes:

i. A list of equipment, with permit numbers if applicable, which can be shut down without jeopardizing the public health, welfare, or safety, and without damaging any equipment used for production or distribution, and an estimate of the resultant reductions in hydrocarbons, nitrogen oxides, carbon monoxide, and particulate matter emissions.

ii. A list of all equipment, with permit numbers if applicable, which must be operated to protect the public health and safety, and an estimate of the hydrocarbons, nitrogen oxides, carbon monoxide, and particulate matter emissions from such equipment.

iii. The measures described in subparagraph k. of this paragraph.

n. Provisions for a report, upon the Air Pollution Control Officer's request, after an episode or Air Pollution Disaster, of the plan's effectiveness, to include the following:

i. An estimate of the source emission reductions and the basis for the estimate.

ii. Identification of problems encountered in implementing the plan.

iii. Comments on the effectiveness of the plan, actions implemented and recommendations for improved effectiveness.

o. Other information that may be required by the Air Pollution Control Officer to improve the source's plan effectiveness.

B. Traffic Abatement Plan

1. Applicability

The owner or operator of any industrial, business, commercial, or governmental facility or activity listed below shall submit to the Control Officer plans to curtail or cease operations causing air contaminants from vehicle use:

a. Operators of 50 or more fleet vehicles.

b. Industrial, business, commercial or governmental establishments employing more than 100 persons per shift at one business address.

2. Contents

The plans required by subparagraphs 1.a. and b. hereof shall include the following information:

a. Name and location of the facility.

b. Number of employees.

c. The total number of employees at the facility during each shift.

d. The total number of motor vehicles and vehicle miles traveled for motor vehicles operated:

i. By the company on company business on a normal weekday and on a major national holiday.

ii. By the employees commuting between home and the place of business on a normal weekday and on a major national holiday.

iii. The minimum number of motor vehicles to be operated that are necessary to protect public health or safety.

e. Procedures for briefing employees regarding the plan requirements.

f. Procedures for notifying employees and individuals responsible for abatement plan requirements, at each episode stage.

g. The names and telephone numbers of a person and alternate to contact in case abatement is necessary.

h. The measures to be taken to decrease public patronage in the event of the declaration a day in advance or far enough in advance for the public to be reached.

i. The measures to be taken to decrease the number of employee vehicles used in commuting in the event of the declaration of an episode a day in advance or far enough in advance for employees to be reached before they leave for work.

j. The measures to be taken to decrease the operation of vehicles used for company or agency business in the event of declaration of an episode.

k. An estimate of the reduction of miles traveled that will be made through decreasing employee and company vehicle travel, and an estimate of the decrease in public patronage, when the plan is used during an episode.

l. The name of the official responsible for implementing the plan.

m. Provisions for a report, upon the Air Pollution Control Officer's request, after an episode of the Air Pollution Disaster, of the plan's effectiveness, to include the following:

i. An estimate of the reduction in travel and the basis for the estimate.

ii. Identification of the problems encountered in implementing the plan.

iii. Comments on the effectiveness of the plan, actions implemented and recommendations for improved effectiveness.

n. Other information that may be required by the Air Pollution Control Officer to improve the source's plan

effectiveness.

C. Availability of Plans for Inspection

A copy of the stationary source curtailment and/or traffic abatement plans approved in accordance with the provisions of this Rule shall be on file and readily available on the premises to any person authorized to enforce the provisions of this Rule.

D. Time Schedule for Initiation of Plans

1. The owner or operator of any governmental, business, commercial, or industrial activity or facility listed in subparagraphs A.1. and B.1. of this Rule shall submit a stationary source curtailment plan and/or traffic abatement plan to the Control Officer within 60 days after May 28, 1980, or written notification by the Control Officer to the source of necessity for filing a plan, whichever is later.

2. The plans submitted pursuant to the requirements of this Rule shall be reviewed by the Control Officer for approval or disapproval according to the following schedule:

a. For sources with emissions of hydrocarbons, carbon monoxide, nitrogen oxides or particulate matter greater than or equal to 454 metric tons (500 tons) per year, or for establishments employing 400 or more employees per shift, within 45 days after receipt.

b. For sources with emissions of hydrocarbons, nitrogen oxides, carbon monoxide or particulate matter greater than or equal to 91 metric tons (100 tons) per year and less than 454 metric tons (500 tons) per year, or for establishments employing more than 200 and less than 400 employees per shift, within 90 days after receipt.

c. For sources with emissions of hydrocarbons, nitrogen oxides, carbon monoxide or particulate matter less than 91 metric tons (100 tons) per year, or for establishments employing 100 to 200 persons per shift, within 180 days after receipt.

3. The owner or operator of any industrial, business, governmental or commercial establishment required to submit a plan shall be notified by the Control Officer within 30 days after the plan has been evaluated as to whether the plan has been approved or disapproved. Any plan disapproved by the Control Officer shall be modified to overcome the disapproval and resubmitted to the Control Officer within 30 days of receipt of the notice of disapproval.

E. Every plan submitted in accordance with the provisions of this Rule shall demonstrate to the Control Officer that the plan will, in the event of a prediction or occurrence of a second- or third- stage episode, effectively reduce or eliminate emissions of air contaminants as delineated in the actions described at Stage 2 and Stage 3.

F. The Control Officer shall prepare appropriate plans to be made effective and action to be taken in respect to a first-, second- or third-stage episode as delineated in Rule 602.E, F and G. Such plans shall effect a decrease or prevent an increase of the air contaminants which occasioned the first-, second- or third-stage episode to protect the health of all

persons within the areas affected. It shall be the objective of such plans that they curtail motor vehicle traffic, industrial, business, commercial and other activities within the area.

G. The plans submitted in accordance with the provisions of this Rule must be approved by the Control Officer. Any plan disapproved by the Control Officer must be modified to overcome his disapproval. Any plan disapproved by the Control Officer will not be considered to have satisfied the requirements of any of the sections of this Rule.

SBAPCD RULE 604 SOURCE INSPECTION
LAST REVISED 06/15/81

RULE 604. SOURCE INSPECTION.

(Adopted 6/15/1981)

In the event a second- or third-stage episode or an Air Pollution Disaster is declared, the Air Pollution Control Officer shall inspect stationary sources subject to mandatory curtailment pursuant to Rule 603 during the time curtailment is required in order to assure compliance and to determine effects of compliance.

SBAPCD RULE 605 ENFORCEMENT
LAST REVISED 06/15/81

RULE 605. ENFORCEMENT.

(Adopted 3/24/1974, readopted 8/1975, 10/23/1978, and 6/15/1981)

When an episode has been declared, the Control Officer, the Sheriff, Fire Chiefs, their deputies and all other peace officers having jurisdiction within the affected area shall enforce the appropriate provisions of this Regulation and all orders of the Control Officer made pursuant to this Regulation, against any person who, having knowledge of the declaration of an episode, refuses to comply with the rules set forth in this Regulation or any order of the Board or the Control Officer made pursuant to this Regulation. Any source that violates any requirement of this Regulation shall be subject to enforcement action under Section 113 of the Clean Air Act (as amended August 1977).

SBAPCD RULE 606 COMMUNICATION NETWORK
LAST REVISED 06/15/81

RULE 606. COMMUNICATION NETWORK.

(Adopted 8/1975, readopted 10/23/1978, and 6/15/1981)

The Control Officer shall implement an effective system of communications to carry out the notifications and coordination required by Rules 602 and 609.

SBAPCD RULE 607 AIR MONITORING STATIONS
LAST REVISED 06/15/81

RULE 607. AIR MONITORING STATIONS.

(Adopted 3/24/1974, revised 8/1975, readopted 10/23/1978 and 6/15/1981)

The Control Officer shall maintain at least one (1) permanently located, adequately equipped atmospheric monitoring station. This monitoring station shall be continuously maintained at the location designated by the Control Officer after consultation with the California Air Resources Board. The Control Officer may maintain additional monitoring stations as necessary. These additional stations may be permanent, temporary, fixed or mobile and may be activated upon orders by the Control Officer.

SBAPCD 608 AIR MONITORING SUMMARIES LAST REVISED 06/15/81

RULE 608. AIR MONITORING SUMMARIES.

(Adopted 3/24/1974, readopted 8/1975, 10/23/1978 and 6/15/1981)

The Control Officer shall make daily summaries of air monitoring data in such form as to be understandable by the public. These summaries shall be public records and immediately after preparation shall be filed at the main office of the District and be available to the public, press, radio, television and other mass media of communication.

SBAPCD RULE 609 INTERDISTRICT COORDINATION
LAST REVISED 06/15/81

RULE 609. INTERDISTRICT COORDINATION.

(Adopted 8/1975, readopted 10/23/1978 and 6/15/1981)

A. The Control Officer shall exchange air pollution episode information with other Air Pollution Control Districts within the South Coast Air Basin and South Central Coast Air Basin. It shall be the Control Officer's objective to exchange air contaminant and meteorological information with other Air Pollution Control Districts to delineate source and receptor areas.

B. Upon request of an Air Pollution Control Officer of an Air Pollution Control District within the South Central Coast Air Basin for action to abate a second or third-stage episode occurring within that district, the Control Officer shall consult with the Board of Supervisors to identify any significant source area within the geographical limits of the area. After such consultation and determination, and the need for action is confirmed, the Control Officer shall direct the implementation of the action required in Rule 602 for any significant source area identified within the District.

SBAPCD RULE 702 GENERAL CONFORMITY
LAST REVISED 10/20/94

RULE 702. GENERAL CONFORMITY.

(Adopted 10/20/1994)

NOTE: All sections of Rule 702 are adopted verbatim from the federal General Conformity regulation (58 FR 63214, November 30, 1993) except for provision §51.860. Because of numerous cross-references between the federal General Conformity regulation provisions, the numbering scheme from the federal regulation has been retained.

§ 51.850 Prohibition.

(a) No department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan.

(b) A Federal agency must make a determination that a Federal action conforms to the applicable implementation plan in accordance with the requirements of this rule before the action is taken.

(c) The preceding sentence does not include Federal actions where either:

(1) A National Environmental Policy Act (NEPA) analysis was completed as evidenced by a final environmental assessment (EA), environmental impact statement (EIS), or finding of no significant impact (FONSI) that was prepared prior to the effective date of this rule, or

(2)

(i) Prior to the effective date of this rule, an EA was commenced or a contract was awarded to develop the specific environmental analysis,

(ii) Sufficient environmental analysis is completed by March 15, 1994 so that the Federal agency may determine that the Federal action is in conformity with the specific requirements and the purposes of the applicable SIP pursuant to the agency's affirmative obligation under section 176(c) of the Clean Air Act (Act), and

(iii) A written determination of conformity under section 176(c) of the Act has been made by the Federal agency responsible for the Federal action by March 15, 1994.

(d) Notwithstanding any provision of this rule, a determination that an action is in conformance with the applicable implementation plan does not exempt the action from any other requirements of the applicable implementation plan, the NEPA, or the Act.

§51.852 Definitions.

Terms used but not defined in this rule shall have the meaning given them by the Act and EPA's regulations, in that order of priority.

Affected Federal land manager means the Federal agency or the Federal official charged with direct responsibility for management of an area designated as Class I under 42 U.S.C. 7472 of the Act that is located within 100 km of the proposed Federal action.

Applicable implementation plan or applicable SIP means the portion (or portions) of the SIP or most recent revision thereof, which has been approved under section 110 of the Act, or promulgated under section 110(c) of the Act (Federal implementation plan), or promulgated or approved pursuant to regulations promulgated under section 301(d) of the Act and which implements the relevant requirements of the Act.

Areawide air quality modeling analysis means an assessment on a scale that includes the entire nonattainment or maintenance area which uses an air quality dispersion model to determine the effects of emissions on air quality.

Cause or contribute to a new violation means a Federal action that:

(1) Causes a new violation of a national ambient air quality standard (NAAQS) at a location in a nonattainment or maintenance area which would otherwise not be in violation of the standard during the future period in question if the Federal action were not taken, or

(2) Contributes, in conjunction with other reasonably foreseeable actions, to a new violation of a NAAQS at a location in a nonattainment or maintenance area in a manner that would increase the frequency or severity of the new violation.

Caused by, as used in the terms "direct emissions" and "indirect emissions," means emissions that would not otherwise occur in the absence of the Federal action.

Criteria pollutant or standard means any pollutant for which there is established a NAAQS at 40 CFR part 50.

Direct emissions means those emissions of a criteria pollutant or its precursors that are caused or initiated by the Federal action and occur at the same time and place as the action.

Emergency means a situation where extremely quick action on the part of the Federal agencies involved is needed and where the timing of such Federal activities makes it impractical to meet the requirements of this rule, such as natural disasters like hurricanes or earthquakes, civil disturbances such as terrorist acts, and military mobilizations.

Emissions budgets are those portions of the applicable SIP's projected emissions inventories that describe the levels of emissions (mobile, stationary, area, etc.) that provide for meeting reasonable further progress milestones, attainment, and/or maintenance for any criteria pollutant or its precursors.

Emission offsets, for purposes of section 51.858, are emissions reductions which are quantifiable, consistent with the applicable SIP attainment and reasonable further progress demonstrations, surplus to reductions required by, and credited to, other applicable SIP provisions, enforceable at both the State and Federal levels, and permanent within the timeframe specified by the program.

Emissions that a Federal agency has a continuing program responsibility for means emissions that are specifically caused by an agency carrying out its authorities, and does not include emissions that occur due to subsequent activities, unless such activities are required by the Federal agency. Where an agency, in performing its normal program responsibilities, takes actions itself or imposes conditions that result in air pollutant emissions by a non-Federal entity taking subsequent actions, such emissions are covered by the meaning of a continuing program responsibility.

EPA means the United States Environmental Protection Agency.

Federal action means any activity engaged in by a department, agency, or instrumentality of the Federal government, or any activity that a department, agency or instrumentality of the Federal government supports in any way, provides financial assistance for, licenses, permits, or approves, other than activities related to transportation plans, programs, and projects developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.). Where the Federal action is a permit, license, or other approval for some aspect of a non-Federal undertaking, the relevant activity is the part, portion, or phase or the non-Federal undertaking that requires the Federal permit, license, or approval.

Federal agency means, for purposes of this rule, a Federal department, agency, or instrumentality of the Federal government.

Increase the frequency or severity of any existing violation of any standard in any area means to cause a nonattainment area to exceed a standard more often or to cause a violation at a greater concentration than previously existed and/or would otherwise exist during the future period in question, if the project were not implemented.

Indirect emissions means those emissions of a criteria pollutant or its precursors that:

(1) Are caused by the Federal action, but may occur later in time and/or may be farther removed in distance from the action itself but are still reasonably foreseeable, and

(2) The Federal agency can practicably control and will maintain control over due to a continuing program responsibility of the Federal agency.

Local air quality modeling analysis means an assessment of localized impacts on a scale smaller than the entire nonattainment or maintenance area, including, for example, congested roadway intersections and highways or transit terminals, which uses an air quality dispersion model to determine the effects of emissions on air quality.

Maintenance area means an area with a maintenance plan approved under section 175A of the Act.

Maintenance plan means a revision to the applicable SIP, meeting the requirements of section 175A of the Act.

Metropolitan Planning Organization (MPO) is that organization designated as being responsible, together with the State, for conducting the continuing, cooperative, and comprehensive planning process under 23 U.S.C. 134 and 49 U.S.C. 1607.

Milestone has the meaning given in sections 182(g)(1) and 189(c)(1) of the Act.

National ambient air quality standards (NAAQS) are those standards established pursuant to section 109 of the Act and include standards for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone, particulate matter (PM-10), and sulfur dioxide (SO_2).

NEPA is the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.).

Nonattainment Area (NAA) means an area designated as nonattainment under section 107 of the Act and described in 40 CFR part 81.

Precursors of a criteria pollutant are:

(1) For ozone, nitrogen oxides (NOx), unless an area is exempted from NOx requirements under section 182(f) of the Act, and volatile organic compounds (VOC) and

(2) For PM-10, those pollutants described in the PM-10 nonattainment area applicable SIP as significant contributors to the PM-10 levels.

Reasonably foreseeable emissions are projected future indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known and the emissions are quantifiable, as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency.

Regionally significant action means a Federal action for which the direct and indirect emissions of any pollutant represent 10 percent or more of a nonattainment or maintenance area's emissions inventory for that pollutant.

Regional water and/or wastewater projects include construction, operation, and maintenance of water or wastewater conveyances, water or wastewater treatment facilities, and water storage reservoirs which affect a large portion of a nonattainment or maintenance area.

Total of direct and indirect emissions means the sum of direct and indirect emissions increases and decreases caused by the Federal action; i.e., the "net" emissions considering all direct and indirect emissions. The portion of emissions which are exempt or presumed to conform under section 51.853, paragraph (c), (d), (e), or (f) are not included in the "total of direct and indirect emissions." The "total of direct and indirect emissions" includes emissions of criteria pollutants and emissions of precursors of criteria pollutants.

§51.853 Applicability.

(a) Conformity determinations for Federal actions related to transportation plans, programs, and projects developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must meet the procedures and criteria of Rule 701 in lieu of the procedures set forth in this rule.

(b) For Federal actions not covered by paragraph (a) of this section, a conformity determination is required for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs (b)(1) or (2) of this section.

(1) For purposes of paragraph (b) of this section, the following rates apply in nonattainment areas (NAAs):

	Tons/Year
Oxone (VOC's or NOx)	
Serious NAA's	50
Sever NAA's	25
Extreme NAA's	10
Other ozone NAA's outside an ozone transport region	100
Marginal and moderate NAA's inside an ozone transport region:	
VOC	50
NOx	100
Carbon monoxide	
All NAA's	100
SO_2 or NO_2	
All NAA's	100
PM10	
Moderate NAA's	100
Serious NAA's	70
Pb	
All NAA's	25

(2) For purposes of paragraph (b) of this section, the following rates apply in maintenance areas:

Ozone (NOx), SO_2 or NO_2	
All Maintenance Areas	100
Ozone (VOC's)	
Maintenance areas inside an ozone transport region	50
Maintenance areas outside an ozone transport region	100
Carbon monoxide	
All maintenance areas	100

PM10		
	All maintenance areas	100
Pb		
	All maintenance areas	25

(c) The requirements of this rule shall not apply to:

(1) Actions where the total of direct and indirect emissions are below the emissions levels specified in paragraph (b) of this section.

(2) The following actions which would result in no emissions increase or an increase in emissions that is clearly de minimis:

(i) Judicial and legislative proceedings.

(ii) Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted.

(iii) Rulemaking and policy development and issuance.

(iv) Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities.

(v) Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions, and the training of law enforcement personnel.

(vi) Administrative actions such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties and fees.

(vii) The routine, recurring transportation of materiel and personnel.

(viii) Routine movement of mobile assets, such as ships and aircraft, in home port reassignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul.

(ix) Maintenance dredging and debris disposal where no new depths are required, applicable permits are secured, and disposal will be at an approved disposal site.

(x) Actions, such as the following, with respect to existing structures, properties, facilities and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands; for example, relocation of personnel, disposition of federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, assistance in purchasing structures, and the production of coins and currency.

(xi) The granting of leases, licenses such as for exports and trade, permits, and easements where activities conducted will be similar in scope and operation to activities currently being conducted.

(xii) Planning, studies, and provision of technical assistance.

(xiii) Routine operation of facilities, mobile assets and equipment.

(xiv) Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of the transfer.

(xv) The designation of empowerment zones, enterprise communities, or viticultural areas.

(xvi) Actions by any of the Federal banking agencies or the Federal Reserve Banks, including actions regarding charters, applications, notices, licenses, the supervision or examination of depository institutions or depository institution holding companies, access to the discount window, or the provision of financial services to banking organizations or to any department, agency or instrumentality of the United States.

(xvii) Actions by the Board of Governors of the Federal Reserve System or any Federal Reserve Bank to effect monetary or exchange rate policy.

(xviii) Actions that implement a foreign affairs function of the United States.

(xix) Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and where the Federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties.

(xx) Transfers of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity and assignments of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity for subsequent deeding to eligible applicants.

(xxi) Actions by the Department of the Treasury to effect fiscal policy and to exercise the borrowing authority of the United States.

(3) The following actions where the emissions are not reasonably foreseeable:

(i) Initial Outer Continental Shelf lease sales which are made on a broad scale and are followed by exploration and development plans on a project level.

(ii) Electric power marketing activities that involve the acquisition, sale and transmission of electric energy.

(4) Actions which implement a decision to conduct or carry out a conforming program such as prescribed burning actions which are consistent with a conforming land management plan.

(d) Notwithstanding the other requirements of this rule, a conformity determination is **not** required for the following Federal actions (or portion thereof):

(1) The portion of an action that includes major new or modified stationary sources that require a permit

under the new source review (NSR) program (section 173 of the Act) or the prevention of significant deterioration (PSD) program (title I, part C of the Act).

(2) Actions in response to emergencies or natural disasters such as hurricanes, earthquakes, etc., which are commenced on the order of hours or days after the emergency or disaster and, if applicable, which meet the requirements of paragraph (e) of this section;

(3) Research, investigations, studies, demonstrations, or training [other than those exempted under section 51.853(c)(2)], where no environmental detriment is incurred and/or, the particular action furthers air quality research, as determined by the State agency primarily responsible for the applicable SIP;

(4) Alteration and additions of existing structures as specifically required by new or existing applicable environmental legislation or environmental regulations (e.g., hush houses for aircraft engines and scrubbers for air emissions).

(5) Direct emissions from remedial and removal actions carried out under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and associated regulations to the extent such emissions either comply with the substantive requirements of the PSD/NSR permitting program or are exempted from other environmental regulation under the provisions of CERCLA and applicable regulations issued under CERCLA.

(e) Federal actions which are part of a continuing response to an emergency or disaster under section 51.853(d)(2) and which are to be taken more than 6 months after the commencement of the response to the emergency or disaster under section 51.853(d)(2) are exempt from the requirements of this rule only if:

(1) The Federal agency taking the actions makes a written determination that, for a specified period not to exceed an additional 6 months, it is impractical to prepare the conformity analyses which would otherwise be required and the actions cannot be delayed due to overriding concerns for public health and welfare, national security interests and foreign policy commitments; or

(2) For actions which are to be taken after those actions covered by paragraph (e)(1) of this section, the Federal agency makes a new determination as provided in paragraph (e)(1) of this section.

(f) Notwithstanding other requirements of this rule, actions specified by individual Federal agencies that have met the criteria set forth in either paragraph (g)(1) or (g)(2) and the procedures set forth in paragraph (h) of this section are presumed to conform, except as provided in paragraph (j) of this section.

(g) The Federal agency must meet the criteria for establishing activities that are presumed to conform by fulfilling the requirements set forth in either paragraph (g)(1) or (g)(2) of this section:

(1) The Federal agency must clearly demonstrate using methods consistent with this rule that the total of direct and indirect emissions from the type of activities which would be presumed to conform would not:

(i) Cause or contribute to any new violation of any standard in any area;

(ii) Interfere with provisions in the applicable SIP for maintenance of any standard;

(iii) Increase the frequency or severity of any existing violation of any standard in any area; or

(iv) Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area including, where applicable, emission levels specified in the applicable SIP for purposes of:

(A) A demonstration of reasonable further progress;

(B) A demonstration of attainment; or

(C) A maintenance plan; or

(2) The Federal agency must provide documentation that the total of direct and indirect emissions from such future actions would be below the emission rates for a conformity determination that are established in paragraph (b) of this section, based, for example, on similar actions taken over recent years.

(h) In addition to meeting the criteria for establishing exemptions set forth in paragraphs (g)(1) or (g)(2) of this section, the following procedures must also be complied with to presume that activities will conform:

(1) The Federal agency must identify through publication in the Federal Register its list of proposed activities that are presumed to conform and the basis for the presumptions;

(2) The Federal agency must notify the appropriate EPA Regional Office(s), State and local air quality agencies and, where applicable, the agency designated under section 174 of the Act and the MPO and provide at least 30 days for the public to comment on the list of proposed activities presumed to conform;

(3) the Federal agency must document its response to all the comments received and make the comments, response, and final list of activities available to the public upon request; and

(4) the Federal agency must publish the final list of such activities in the Federal Register.

(i) Notwithstanding the other requirements of this rule, when the total of direct and indirect emissions of any pollutant from a Federal action does not equal or exceed the rates specified in paragraph (b) of this section, but represents 10 percent or more of a nonattainment or maintenance area's total emissions of that pollutant, the action is defined as a regionally significant action and the requirements of section 51.850 and sections 51.855-860 shall apply for the Federal action.

(j) Where an action otherwise presumed to conform under paragraph (f) of this section is a regionally significant action or does not in fact meet one of the criteria in paragraph (g)(1) of this section, that action shall not be presumed to conform and the requirements of section 51.850 and sections 51.855-860 shall apply for the Federal action.

(k) The provisions of this rule shall apply in all nonattainment and maintenance areas.

§51.854 Conformity analysis.

Any Federal department, agency, or instrumentality of the Federal government taking an action subject to this rule must make its own conformity determination consistent with the requirements of this rule. In making its conformity determination, a Federal agency must consider comments from any interested parties. Where multiple Federal agencies have jurisdiction for various aspects of a project, a Federal agency may choose to adopt the analysis of another Federal agency or develop its own analysis in order to make its conformity determination.

§51.855 Reporting requirements.

(a) A Federal agency making a conformity determination under section 51.858 must provide to the appropriate EPA Regional Office(s), State and local air quality agencies and, where applicable, affected Federal land managers, the agency designated under section 174 of the Act and the MPO a 30 day notice which describes the proposed action and the Federal agency's draft conformity determination on the action.

(b) A Federal agency must notify the appropriate EPA Regional Office(s), State and local air quality agencies and, where applicable, affected Federal land managers, the agency designated under section 174 of the Clean Air Act and the MPO within 30 days after making a final conformity determination under section 51.858.

§51.856 Public participation.

(a) Upon request by any person regarding a specific Federal action, a Federal agency must make available for review its draft conformity determination under section 51.858 with supporting materials which describe the analytical methods and conclusions relied upon in making the applicability analysis and draft conformity determination.

(b) A Federal agency must make public its draft conformity determination under section 51.858 by placing a notice by prominent advertisement in a daily newspaper of general circulation in the area affected by the action and by providing 30 days for written public comment prior to taking any formal action on the draft determination. This comment period may be concurrent with any other public involvement, such as occurs in the NEPA process.

(c) A Federal agency must document its response to all the comments received on its draft conformity determination under section 51.858 and make the comments and responses available, upon request by any person regarding a specific Federal action, within 30 days of the final conformity determination.

(d) A Federal agency must make public its final conformity determination under section 51.858 for a Federal action by placing a notice by prominent advertisement in a daily newspaper of general circulation in the area affected by the action within 30 days of the final conformity determination.

§51.857 Frequency of conformity determinations.

(a) The conformity status of a Federal action automatically lapses 5 years from the date a final conformity determination is reported under section 51.855, unless the Federal action has been completed or a continuous program has been commenced to implement that Federal action within a reasonable time.

(b) Ongoing Federal activities at a given site showing continuous progress are not new actions and do not require periodic redeterminations so long as such activities are within the scope of the final conformity determination reported under section 51.855.

(c) If, after the conformity determination is made, the Federal action is changed so that there is an increase in the total of direct and indirect emissions above the levels in section 51.853(b), a new conformity determination is required.

§51.858 Criteria for determining conformity of general Federal actions.

(a) An action required under section 51.853 to have a conformity determination for a specific pollutant, will be determined to conform to the applicable SIP if, for each pollutant that exceeds the rates in section 51.853, paragraph (b), or otherwise requires a conformity determination due to the total of direct and indirect emissions from the action, the action meets the requirements of paragraph (c) of this section, and meets any of the following requirements:

(1) For any criteria pollutant, the total of direct and indirect emissions from the action are specifically identified and accounted for in the applicable SIP's attainment or maintenance demonstration;

(2) For ozone or nitrogen dioxide, the total of direct and indirect emissions from the action are fully offset within the same nonattainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant;

(3) For any criteria pollutant, except ozone and nitrogen dioxide, the total of direct and indirect emissions from the action meet the requirements:

(i) specified in paragraph (b) of this section, based on areawide air quality modeling analysis and local air quality modeling analysis, or

(ii) meet the requirements of paragraph (a)(5) and, for local air quality modeling analysis, the requirement of paragraph (b) of this section;

(4) For CO or PM-10,

(i) Where the State agency primarily responsible for the applicable SIP determines that an areawide

air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on local air quality modeling analysis or

(ii) Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on areawide modeling, or meet the requirements of paragraph (a)(5) of this section; or

(5) For ozone or nitrogen dioxide, and for purposes of paragraphs (a)(3)(ii) and (a)(4)(ii) of this section, each portion of the action or the action as a whole meets any of the following requirements:

(i) Where EPA has approved a revision to an area's attainment or maintenance demonstration after 1990 and the State makes a determination as provided in paragraph (A) or where the State makes a commitment as provided in paragraph (B):

(A) The total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the State agency primarily responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable SIP.

(B) The total of direct and indirect emissions from the action (or portion thereof) is determined by the State agency responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would exceed an emissions budget specified in the applicable SIP and the State Governor or the Governor's designee for SIP actions makes a written commitment to EPA which includes the following:

(1) A specific schedule for adoption and submittal of a revision to the SIP which would achieve the needed emission reductions prior to the time emissions from the Federal action would occur;

(2) Identification of specific measures for incorporation into the SIP which would result in a level of emissions which, together with all other emissions in the nonattainment or maintenance area, would not exceed any emissions budget specified in the applicable SIP;

(3) A demonstration that all existing applicable SIP requirements are being implemented in the area for the pollutants affected by the Federal action, and that local authority to implement additional requirements has been fully pursued;

(4) A determination that the responsible Federal agencies have required all reasonable mitigation measures associated with their action; and

(5) Written documentation including all air quality analyses supporting the conformity determination.

(C) Where a Federal agency made a conformity determination based on a State commitment under subparagraph (a)(5)(i)(B) of this paragraph, such a State commitment is automatically deemed a call for a SIP revision by EPA under section 110(k)(5) of the Act, effective on the date of the Federal conformity determination and requiring response within 18 months or any shorter time within which the State commits to revise the applicable SIP;

(ii) The action (or portion thereof), as determined by the MPO, is specifically included in a current transportation plan and transportation improvement program which have been found to conform to the applicable SIP under 40 CFR part 51, subpart T, or 40 CFR part 93, subpart A;

(iii) The action (or portion thereof) fully offsets its emissions within the same nonattainment or maintenance area through a revision to the applicable SIP or an equally enforceable measure that effects emission reductions equal to or greater than the total of direct and indirect emissions from the action so that there is no net increase in emissions of that pollutant;

(iv) Where EPA has not approved a revision to the relevant SIP attainment or maintenance demonstration since 1990, the total of direct and indirect emissions from the action for the future years [described in paragraph (d) of section 51.859] do not increase emissions with respect to the baseline emissions;

(A) The baseline emissions reflect the historical activity levels that occurred in the geographic area affected by the proposed Federal action during:

(1) Calendar year 1990,

(2) The calendar year that is the basis for the classification (or, where the classification is based on multiple years, the most representative year), if a classification is promulgated in 40 CFR part 81, or

(3) The year of the baseline inventory in the PM-10 applicable SIP;

(B) The baseline emissions are the total of direct and indirect emissions calculated for the future years [described in paragraph (d) of section 51.859] using the historic activity levels [described in subparagraph (a)(5)(iv)(A) of this paragraph] and appropriate emission factors for the future years; or

(v) Where the action involves regional water and/or wastewater projects, such projects are sized to meet only the needs of population projections that are in the applicable SIP.

(b) The areawide and/or local air quality modeling analyses must:

(1) Meet the requirements in section 51.859 and

(2) Show that the action does not:

(i) Cause or contribute to any new violation of any standard in any area; or

(ii) Increase the frequency or severity of any existing violation of any standard in any area.

(c) Notwithstanding any other requirements of this section, an action subject to this rule may not be determined to conform to the applicable SIP unless the total of direct and indirect emissions from the action is in compliance or consistent with all relevant requirements and milestones contained in the applicable SIP, such as elements identified as part of the reasonable further progress schedules, assumptions specified in the attainment or maintenance demonstration, prohibitions, numerical emission limits, and work practice requirements.

(d) Any analyses required under this section must be completed, and any mitigation requirements necessary for a finding of conformity must be identified before the determination of conformity is made.

§51.859 Procedures for conformity determinations of general Federal actions.

(a) The analyses required under this rule must be based on the latest planning assumptions.

(1) All planning assumptions must be derived from the estimates of population, employment, travel, and congestion most recently approved by the MPO, or other agency authorized to make such estimates, where available.

(2) Any revisions to these estimates used as part of the conformity determination, including projected shifts in geographic location or level of population, employment, travel, and congestion, must be approved by the MPO or other agency authorized to make such estimates for the urban area.

(b) The analyses required under this rule must be based on the latest and most accurate emission estimation techniques available as described below, unless such techniques are inappropriate. If such techniques are inappropriate and written approval of the EPA Regional Administrator is obtained for any modification or substitution, they may be modified or another technique substituted on a case-by-case basis or, where appropriate, on a generic basis for a specific Federal agency program.

(1) For motor vehicle emissions, the most current version of the motor vehicle emissions model specified by EPA and available for use in the preparation or revision of SIPs in that State must be used for the conformity analysis as specified below:

(i) The EPA must publish in the Federal Register a notice of availability of any new motor vehicle emissions model; and

(ii) A grace period of three months shall apply during which the motor vehicle emissions model previously specified by EPA as the most current version may be used. Conformity analyses for which the analysis was begun during the grace period or no more than 3 years before the Federal Register notice of availability of the latest emission model may continue to use the previous version of the model specified by EPA.

(2) For non-motor vehicle sources, including stationary and area source emissions, the latest emission factors specified by EPA in the "Compilation of Air Pollutant Emission Factors (AP-42)" must be used for the conformity analysis unless more accurate emission data are available, such as actual stack test data from stationary sources which are part of the conformity analysis.

(c) The air quality modeling analyses required under this rule must be based on the applicable air quality models, data bases, and other requirements specified in the most recent version of the "Guideline on Air Quality Models (Revised)" (1986), including supplements (EPA publication no. 450/2-78-027R), unless:

(1) The guideline techniques are inappropriate, in which case the model may be modified or another model substituted on a case-by-case basis or, where appropriate, on a generic basis for a specific Federal agency program; and

(2) Written approval of the EPA Regional Administrator is obtained for any modification or substitution.

(d) The analyses required under this rule, except section 51.858, paragraph (a)(1), must be based on the total of direct and indirect emissions from the action and must reflect emission scenarios that are expected to occur under each of the following cases:

(1) The Act mandated attainment year or, if applicable, the farthest year for which emissions are projected in the maintenance plan;

(2) The year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis; and

(3) any year for which the applicable SIP specifies an emissions budget.

§51.860 Mitigation of air quality impacts.

(a) Any measures that are intended to mitigate air quality impacts must be identified (including the identification and quantification of all emission reductions claimed) and the process for implementation (including any necessary funding of such measures and tracking of such emission reductions) and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation.

(b) Prior to determining that a Federal action is in conformity, the Federal agency making the conformity determination must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures which are identified as conditions for making conformity determinations. Such written commitments shall describe such mitigation measures and the nature of the commitment, in a manner consistent with paragraph (a).

(c) Persons or agencies voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

(d) In instances where the Federal agency is licensing, permitting or otherwise approving the action of another governmental or private entity, approval by the Federal agency must be conditioned on the other entity meeting the mitigation measures set forth in the conformity determination, as provided in paragraph (a).

(e) When necessary because of changed circumstances, mitigation measures may be modified so long as the new mitigation measures continue to support the conformity determination in accordance with §§ 51.858 and 51.859 and this section. Any proposed change in the mitigation measures is subject to the reporting requirements of section 51.856 and the public participation requirements of section 51.857.

(f) After a State revises its SIP to adopt its general conformity rules and EPA approves that SIP revision, any agreements, including mitigation measures, necessary for a conformity determination will be both State and federally enforceable. Enforceability through the applicable SIP will apply to all persons who agree to mitigate direct and indirect emissions associated with a Federal action for a conformity determination.

RULE 809. FEDERAL MINOR SOURCE NEW SOURCE REVIEW
(Adopted 8/25/2016)

A. Applicability

This rule applies to any new or modified stationary source that emits an air pollutant (or its precursors) subject to any national ambient air quality standard, and the source is not a new major stationary source or a major modified stationary source.

B. Exemptions

Equipment that qualifies as exempt under Rule 202, Exemptions to Rule 201, is exempt from this rule.

C. Definitions

See Rule 102, Definitions, for definitions not limited to this rule. For the purposes of this rule, the following definitions shall apply:

"National Ambient Air Quality Standard" means any federal ambient air quality standard promulgated by the Environmental Protection Agency.

"Project" means any article, machine, equipment or contrivance belonging to the same emission unit at a stationary source and applied for in one or more applications for an Authority to Construct permit. Project shall not include any article, machine, equipment or contrivance described in any application for an Authority to Construct permit submitted more than 12 months after issuance of the Permit to Operate. Notwithstanding the above, Project shall include any application to increase permitted emissions due primarily to an increase in throughput or usage not associated with any new or modified article, machine, equipment or contrivance, regardless of the time between permit applications.

D. Requirements – Authority to Construct and Permit to Operate

Any person building, erecting, altering, replacing, or using any article, machine, equipment or other contrivance, the use of which may cause the issuance of any air pollutant (or its precursors) subject to any national ambient air quality standard or the use of which may eliminate or reduce or control the issuance of such pollutant (or its precursors), shall first obtain an Authority to Construct for such construction and a Permit to Operate for the subsequent operation from the Control Officer. An Authority to Construct issued to a source shall remain in effect until the Permit to Operate for the project for which the application was filed is granted or denied or the application expires. Interim operations may be allowed under the provisions of the Authority to Construct permit.

E. Requirements – Air Quality Impact Analysis

1. Thresholds

The applicant for any new or modified stationary source with a potential to emit of any air pollutant (or its precursors) which is equal to or greater than any threshold shown in Table 1 shall submit an Air Quality Impact Analysis (AQIA) with their application. The Air Quality Impact Analysis shall be conducted pursuant to Subsection E.2 and must demonstrate to the satisfaction of the Control Officer that the emissions will not cause a violation or interfere with the expeditious attainment or maintenance of any national ambient air quality standard or prevent reasonable progress towards the expeditious attainment or maintenance of any national ambient air quality standard. For the purposes of this section, "potential to emit" for modified stationary sources means the potential to emit from the project. In addition, the Control Officer may require an Air Quality Impact Analysis for any new or modified stationary source that the Control Officer has determined has the potential to cause or contribute to a violation of any national ambient air

quality standard. This paragraph shall not require an Air Quality Impact Analysis for the assessment of the effects of ozone precursor emissions on ozone.

Table 1 – Air Quality Impact Analysis Thresholds

Pollutant	Pounds/day
Nitrogen Oxides (as Nitrogen Dioxide)	120
Sulfur Oxides (as Sulfur Dioxide)	120
PM_{10}	80
$PM_{2.5}$	55
Carbon Monoxide	500
Lead	3.28

2. Air Quality Models

All air quality models shall be consistent with the requirements provided in the most recent "Guideline on Air Quality Models" prepared by the Environmental Protection Agency (Appendix W to 40 CFR Part 51) unless the Control Officer finds that such a model is inappropriate for use. After making such finding, the Control Officer may designate an alternate model only after allowing for public comment and only with concurrence of the California Air Resources Board and the Environmental Protection Agency.

3. Requirements – Effective Stack Height

For the purposes of determining effective stack height, the influence of a nearby structure is limited to five times its height or width, whichever is less, downwind. In meeting the requirements of this rule pertaining to compliance with applicable ambient air quality standards or increments, the degree of emission limitation required shall not be affected by:

a. So much of the stack height of any source as exceeds good engineering practice, or

b. Any other dispersion technique.

F. Requirements – Standards for Granting Applications

1. No Authority to Construct or Permit to Operate shall be issued for any project subject to this rule unless the Control Officer has made a determination that the project will comply with all applicable State Implementation Plan (SIP) requirements.

2. No Authority to Construct or Permit to Operate shall be issued for any project subject to this rule unless the Control Officer has made a determination that the new or modified stationary source will not interfere with the District's ability (or any neighboring district's or state's ability) to attain or maintain all national ambient air quality standards.

3. Before an Authority to Construct or a Permit to Operate is granted, the Control Officer may require the applicant to provide and maintain such facilities as are necessary for sampling and testing purposes in order to secure information that will disclose the nature, extent, quantity or degree of air pollutants discharged into the atmosphere from the article, machine, equipment or other contrivance described in the Authority to Construct or Permit to Operate. The platform and access for sampling shall be constructed in accordance with the General Industry Safety Orders of the State of California.

4. The Control Officer may issue an Authority to Construct or Permit to Operate to any new or modified stationary source for which a permit is required, subject to specified written conditions. Such conditions are for the purpose of ensuring that construction and operation of the source complies with all applicable local, state, and federal air quality laws, rules, and regulations.

Commencing construction or operation under such an Authority to Construct or Permit to Operate shall be deemed acceptance of all the specified conditions. Failure to comply with any condition specified pursuant to the provisions of this rule shall be a violation of this rule.

5. The Control Officer may issue a new Permit to Operate with revised conditions upon receipt of an application which modifies the project in such a manner to ensure that the source can operate in compliance with all applicable local, state, and federal air quality laws, rules and regulations.

6. No Authority to Construct or Permit to Operate shall be issued for any project subject to this rule unless the Control Officer has complied with the Public Notice Requirements specified in Section G of this rule.

G. Requirements – Analysis and Public Notice

The Control Officer shall comply with the following requirements for any new or modified stationary source with an emission increase of any air pollutant (or its precursors) which is equal to or greater than any threshold shown in Table 1.

1. Make available for public inspection at the District's office the analysis of the effect of the source on air quality and the preliminary decision to grant or deny the Authority to Construct.

2. Publish a notice once by advertisement in at least one newspaper of general circulation in the District, stating where the public may inspect the information on the preliminary decision to grant an Authority to Construct. The notice shall provide 30 days for the public to submit comments on the application, beginning on the date of publication.

3. Notify the applicant, Environmental Protection Agency, Air Resources Board, and adjoining air pollution control districts of the District's preliminary decision to grant the Authority to Construct. The notice will be provided in writing at the time of public notice. The Environmental Protection Agency and the Air Resources Board shall be provided an analysis support package for the determination.

4. Consider all comments submitted. If within the 30-day notice period the Control Officer receives a written request from the Environmental Protection Agency or the Air Resources Board to defer his or her decision pending the requesting agency's review of the application, the Control Officer shall defer any decision for a period of 30 days from the date of such request. The Control Officer shall take final action on the application after considering all written comments.

5. The public notice will include notification of the opportunity for a public hearing. A public hearing may be called if sufficient interest is generated within the 30-day comment period. All public hearings shall have a public notice issued at least 30 days prior to the hearing. After considering all comments, including those presented at any hearings held, the Control Officer will reach a decision and notify the applicant, Environmental Protection Agency, Air Resources Board, adjoining air pollution control districts, and any person who provided comments or has made a written request to be notified of the final decision. The Control Officer's notification of the final decision may be made electronically.

H. Denial of Permit

The Control Officer shall notify the applicant in writing if the Authority to Construct or Permit to Operate is denied. This notification shall include the reasons why the application was denied.

I. Requirements – Records

All owners or operators subject to this rule shall maintain records that are required by the District to verify compliance. The required records shall be specified in the Authority to Construct and Permit to Operate. Such records shall be retained for a period of 3 years from the date of entry.

J. Requirements – Compliance with All Regulatory Requirements

Issuance of any Authority to Construct or Permit to Operate under this rule does not relieve the applicant from complying with any applicable local, state or federal regulation.

If an existing previously permitted stationary source will become a major stationary source solely due to a relaxation of a permit limitation on the capacity of the stationary source to emit an air contaminant, such as a limit on emissions, hours of operation, process rates or fuel use, the stationary source shall be considered a new major stationary source and the requirements of Rule 810, Federal Prevention of Significant Deterioration (PSD), shall apply as if construction of the stationary source had not yet commenced.

K. Expiration of Authority to Construct

If unused, an Authority to Construct shall automatically expire one year from the date of issuance.

RULE 810. FEDERAL PREVENTION OF SIGNIFICANT DETERIORATION (PSD). (Adopted 1/20/2011, amended 6/20/2013

A. Purpose

The federal Prevention of Significant Deterioration program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. Rule 201, Permits Required, contains application requirements and Rule 204, Applications, Rule 205, Standards for Granting Applications, Rule 206, Conditional Approval of Authority to Construct or Permit to Operate, Rule 207, Denial of Applications, and Rule 208, Action on Applications - Time Limits, contain processing requirements for permit actions. The purpose of this rule is to incorporate the federal Prevention of Significant Deterioration rule requirements into the District's Rules and Regulations by incorporating the federal requirements by reference.

B. Applicability

The provisions of this rule shall apply to any source and the owner or operator of any source subject to any requirement under 40 Code of Federal Regulations, Part 52, Section 52.21 (40 CFR 52.21) in effect June 20, 2013 as incorporated into this rule.

C. Incorporation by Reference

Except as provided below, the provisions of Title 40 CFR 52.21 in effect June 20, 2013 are incorporated herein by reference and made part of the Rules and Regulations of the Santa Barbara County Air Pollution Control District.

1. The following subsections of 40 CFR 52.21 are excluded: (a)(1), (b)(55-58), (f), (g), (i)(1)(i-v), (i)(1)(ix-x), (i)(6-8), (p)(6-8), (q), (s), (t), (u), (v), (w), (x), (y), (z), and (cc).

2. The following terms and phrases found in 40 CFR 52.21(b) are revised as follows:

    a. The term "administrator" means:

        1) "Environmental Protection Agency administrator" in 40 CFR 52.21(b)(17), (b)(37)(i), (b)(43), (b)(48)(ii)(c), (b)(50)(i), (b)(51), (l)(2) and (p)(2); and

        2) "Control Officer" elsewhere, as defined in Rule 102, Definitions.

    b. The phrase "paragraph (q) of this section" in 40 CFR 52.21(l)(2) and (p)(1) shall read as follows: "the public notice and comment provisions of Rule 810 Section E."

3. The phrase "permit to construct" found in 40 CFR 52.21(p)(1) means "Authority to Construct" as defined in Rule 102, Definitions.

D. Requirements:

1. The Control Officer shall provide written notice of any permit application for a proposed major stationary source or major modification to the Environmental Protection Agency administrator. Such notification shall include a copy of all information relevant to the permit application and shall be given within 30 days of receipt and at least 60 days prior to any public hearing on the application for an Authority to Construct.

2. The Control Officer shall determine whether an application is complete not later than 30 days after receipt of the application or after such longer time as both the applicant and the Control Officer may agree. If the Control Officer determines that the application is not complete, the applicant shall be notified in writing of the decision specifying the information that is required. Upon receipt of any resubmittal of the application, a new 30-day period to determine completeness shall begin. If the Control Officer determines that the application is still not complete, the applicant may appeal that determination to the Board. The Board shall make its written determination within 60 days after receiving the applicant's appeal. If such determination is not made within that 60-day period, the application with the submitted materials shall be deemed complete. Appeals will be assessed a fee based on the cost reimbursement provisions of Rule 210, Fees. Upon determination that the application is complete, the Control Officer shall notify the applicant in writing. The date of receipt of the application shall be the date on which the reviewing authority received all required information.

3. An owner or operator must obtain a federal Prevention of Significant Deterioration permit pursuant to this rule before beginning actual construction of a new major stationary source, a major modification, or a plantwide applicability limitation (PAL) major modification, as defined in 40 CFR 52.21(b).

4. Notwithstanding the provisions of any other District Rule or Regulation, the Control Officer shall require compliance with this rule prior to issuing a federal Prevention of Significant Deterioration permit as required by Clean Air Act Section 165.

5. The applicant shall pay the applicable fees specified in Rule 210, Fees.

E. Public Participation

Prior to issuing a federal Prevention of Significant Deterioration permit pursuant to this rule and within one year after receipt of a complete application, the Control Officer shall:

1. Make a preliminary determination whether construction should be approved with conditions or disapproved.

2. Make available in at least one location in Santa Barbara County a copy of all materials the applicant submitted, a copy of the preliminary determination, a copy of the proposed permit and a copy or summary of other materials, if any, considered in making the preliminary determination.

3. Notify the public, by advertisement in a newspaper of general circulation in Santa Barbara County of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and of the opportunity for written public comment.

4. Send a copy of the notice of public comment to the applicant, United States Environmental Protection Agency Region 9, any persons requesting such notice and any other interested parties such as: Any other State or local air pollution control agencies; the chief executives of the cities in the County; the County Executive Officer; any comprehensive regional land use planning agency; and any State, Federal Land Manager, or Indian Governing body whose lands may be affected by emissions from the source or modification.

5. Provide opportunity for a public hearing for persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations, if in the Control Officer’s judgment such a hearing is warranted.

6. Consider all written comments that were submitted within 30 days after the notice of public comment is published and all comments received at any public hearing(s) in making a final decision on the approvability of the application and make all comments available for public inspection in the same locations where the District made available preconstruction information relating to the proposed source or modification.

7. Make a final determination whether construction should be approved with conditions or disapproved.

8. Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the District made available preconstruction information and public comments relating to the source.

10-31-97

10/31/97

RULE 1301 PART 70 OPERATING PERMITS – GENERAL INFORMATION. (Adopted 11/09/1993, revised 8/15/1996 and 9/18/1997)

A. Applicability

The provisions of this Rule and of Rules 1302 through 1305 shall apply to any source that qualifies as a **"Part 70 source"** as defined in Section C below.

B. Exemptions

The requirement to obtain a Part 70 operating permit under this Rule shall not apply to:

1. Any stationary source required to obtain a Part 70 permit solely because such source is subject to the provisions of 40 CFR 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters; or

2. Any stationary source or operation required to obtain a Part 70 permit solely because such source is subject to the provisions of 40 CFR 61, Subpart M, National Emission Standard for Hazardous Air Pollutants for Asbestos, Section 61.145, Standard for Demolition and Renovation; or

3. Any stationary source, including an area source, required to obtain a Part 70 permit solely because such source is subject to regulations or requirements pursuant to Section 112(r) of the Clean Air Act (CAA);

4. Any solid waste incineration unit required to obtain a permit pursuant to Section 3005 of the Solid Waste Disposal Act.

C. Definitions

For purposes of this Rule and of Rules 1302 through 1305, the definitions listed below shall apply:

"Acid Rain Source" means any stationary source that includes one or more emission units that are subject to emission reduction requirements or limitations pursuant to Title IV (Acid Rain) of the CAA Amendments of 1990.

"Administrative Permit Amendment" means a modification to a Part 70 permit that is being made solely for the purpose of accomplishing one or more of the following objectives:

1. To correct typographical errors.

2. To make an administrative change at the source such as the name, address or phone number of a person named in the permit.

3. To require more frequent monitoring or reporting by the permittee.

4. To allow the transfer of ownership or operational control of a stationary source where the District has determined that no other change in the permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the District.

5. To incorporate into the Part 70 permit the terms and conditions of USEPA's preconstruction review permit or the District Authority to Construct permit issued under a program approved by USEPA as meeting procedural requirements substantially equivalent to the procedural requirements of 40 CFR 70.7 and 70.8 and the compliance requirements of 40 CFR 70.6.

6. To incorporate other changes determined by the Control Officer and the USEPA as administrative amendments.

Significant or minor permit modifications defined elsewhere within this Rule shall not be deemed as administrative amendments.

"Air Pollutant (also Air Contaminant)," see "Regulated Air Pollutant."

"Affected States" means states that are contiguous to California whose air quality may be affected by emissions resulting from issuance, renewal or modification of a permit to a Part 70 source.

"Applicable Requirement" means any federal, state, or District requirement including any federally approved State Implementation Plan requirement for Santa Barbara County, and any **"federally enforceable requirement."**

"CFR" means the Code of Federal Regulations, an official compilation of federal Regulations generated by federal administrative agencies.

"Clean Air Act (Act or CAA)" means the federal Clean Air Act as amended, 42 U.S.C. 7401, *et seq.*

"Day or Days" means calendar day or days unless otherwise stated.

"District" means the Santa Barbara County Air Pollution Control District.

"Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of a permittee, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the stationary source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

"Emissions Allowable Under the Federally Enforceable Permit" means a federally enforceable permit term or condition determined by the District or the USEPA as required under a federally enforceable requirement. The term or condition establishes an emissions limit (including a work practice standard) or a federally enforceable emission cap that the source has assumed to avoid a federally enforceable requirement to which the source would otherwise be subject.

"Emissions Unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any substance listed pursuant to Section 112(b) of the CAA and its implementing regulations.

"Environmental Protection Agency (USEPA) or the Administrator" means the U.S. Environmental Protection Agency or its administrator or the administrator's designee.

"Federally Enforceable Requirement" means any requirement set forth in, or authorized by the CAA and its implementing regulations or USEPA regulations. Federally enforceable requirements include requirements that have been promulgated or approved by USEPA through rulemaking at the time of issuance of a Part 70 permit but have future effective dates. Federally enforceable requirements include:

1. Title I requirements of the CAA and its implementing regulations, including:

   a. District Regulation VIII requirements in the state implementation plan approved by the USEPA and the terms and conditions of a preconstruction permit issued pursuant to such rule.

   b. New Source Review (NSR) consisting of Non-attainment Area Review (NAR) and Prevention of Significant Deterioration (PSD) review requirements and the terms and conditions of the NAR/PSD permits (40 CFR Parts 51 and 52).

   c. New Source Performance Standards (40 CFR Part 60).

   d. National Ambient Air Quality Standards, increment, or visibility requirements, but only as they would apply to sources permitted pursuant to Section 504(e) of the CAA and its implementing regulations.

   e. National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61).

   f. Any standards, determinations or other requirements under Section 112 of the CAA and its implementing regulations, including MACT and GACT Standards and MACT and GACT determinations made pursuant to CAA, Sections 112(g) and 112(j).

   g. Solid Waste Incineration requirements (Section 129 of the CAA and its implementing regulations).

   h. Consumer and Commercial Product requirements (Section 183 of the CAA and its implementing regulations).

   i. Tank Vessel requirements (Section 183 of the CAA and its implementing regulations).

   j. District rules that are approved into the state implementation plan.

   k. Federal Implementation Plan requirements.

   l. Enhanced Monitoring and Compliance Certification requirements (Section 114(a)(3) of the CAA and its implementing regulations).

2. Title III, Section 328 (Outer Continental Shelf or OCS) requirements of the CAA (40 CFR Part 55), upon delegation by USEPA of the OCS program to the District.

3. Title III, Section 112 (Hazardous Air Pollutant) requirements of the CAA and its implementing regulations.

4. Title IV (Acid Deposition Control) requirements of the CAA (40 CFR Parts 72, 73, 75, 76, 77, 78).

5. Title VI (Stratospheric Ozone Protection) requirements of the CAA (40 CFR Part 82).

6. Monitoring and Analysis requirements (Section 504(b) of the CAA and 40 CFR 64).

Terms and conditions of Part 70 permits are federally enforceable, unless they have been specifically designated as non-federally enforceable.

"Final Operating Permit" means a permit with District and federally enforceable conditions, that has completed all review procedures required by Rule 1304, has not been disapproved by the USEPA and has been issued by the District.

"Fugitive Emissions" means those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Fugitive emissions from a Part 70 source shall be included in the permit application and the Part 70 permit in the same manner as stack emissions.

"General Permit" means a federally enforceable operating permit that meets the requirements of 40 CFR 70.6(d).

"Generally Available Control Technology (GACT)" means a generally available control technology standard or management practice promulgated pursuant to Section 112(d) of the CAA (40 CFR 63).

"Hazardous Air Pollutant (HAP)" means any hazardous air pollutant listed in Section 112(b) of the CAA and its implementing regulations.

"Insignificant Activities" mean those equipment, operations and activities listed as exempt from District permitting pursuant to Sections D.3., D.4., and F through G of District Rule 202 (Exemptions to Rule 201). A list of all insignificant activities at the Part 70 source shall be listed in its Part 70 operating permit application. Also, all information needed to determine the applicability of, or to impose, any applicable requirement, or to evaluate any applicable permit fees must be provided for each of the insignificant activities listed in the permit application. No federally enforceable requirement for emissions allowable under the permit shall be listed for these insignificant activities in the permit.

"Insignificant Emissions levels" mean the emissions levels: (a). specified as exempt from District permitting pursuant to Section D.6. of District Rule 202; or, (b). de minimis levels of HAP emissions which do not trigger any Part 70 permit modifications.

"Maximum Achievable Control Technology (MACT)" means any maximum achievable control technology emission limit or other requirement promulgated pursuant to CAA, Section 112 (d) as set forth in 40 CFR 63.

"Minor Permit Modification" means a modification to a Part 70 permit that meets all of the following criteria:

1. The modification is not a Title I modification.

2. The modification does not violate any applicable requirements.

3. The modification does not require or change a case-by-case determination of an emission limitation or other standard.

4. The modification does not involve any relaxation of any existing monitoring, reporting or recordkeeping requirements in the permit.

5. The modification does not seek to establish or change a permit condition that established a federally enforceable emissions cap assumed to avoid an otherwise federally enforceable requirement.

6. The modification does not cause a net emissions increase which triggers a significant permit modification.

"Modification" means any physical change, change in the method of operation of, or addition to an existing Part 70 source that would result in a net emissions increase of any regulated pollutant at that source. In this context, a physical change does not include routine maintenance or repair. Also, unless previously limited by a federally enforceable permit condition, the following shall not be considered changes in the method of operation:

1. An increase in the production rate if such increase does not exceed the operating design capacity or the demonstrated actual maximum capacity of the equipment;

2. A change in ownership;

3. Use of an alternate fuel or raw material, provided that such use is expressly authorized on the permit;

4. A replacement of a piece of equipment with an equivalent piece of equipment with the operating design capacity or the demonstrated actual maximum capacity less than or equal to those of the original piece of equipment. However, this exemption shall not apply to equipment used in a source category which is subject to the New Source Performance Standards stipulated by Section 111 or to the Emission Standards for Hazardous Air Pollutants mandated under Section 112 of the CAA and its implementing regulations.

A modification shall be considered **"major or Title I modification"** for a Part 70 source if the net emissions increase of any regulated pollutant equals or exceeds the levels stipulated in **"Title I Modification"** subsection of this rule.

For Part 70 sources subject to New Source Performance Standards (NSPS), modification means any physical change, or change in the method of operation of, an existing equipment (to which NSPS can apply when newly constructed or modified) which increases the amount of any air pollutant (to which a standard applies) emitted into the air by that equipment or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted. For Part 70 sources subject to Emission Standards for Hazardous Pollutants mandated under Section 112 of the CAA, modification means any physical change, or change in the method of operation of the source which increases the actual emissions of any hazardous air pollutant (HAP) emitted by such source by more than a de minimis amount or which results in the emission of any hazardous pollutant not previously emitted by more than a de minimis amount. The de minimis amounts mentioned above shall correspond to the levels listed by the USEPA in the federal register promulgations of the HAP standards under Section 112 of the CAA.

"National Ambient Air Quality Standards (NAAQS)" means air quality standards promulgated pursuant to Section 109 of the CAA and its implementing regulations to protect public health and welfare, and consisting of primary and secondary standards. Primary standards are aimed at protecting the public health, while secondary standards are intended to safeguard the public welfare.

"Net Emissions Increase" for a Part 70 source means the net emissions increase as defined under the District New Source Review Regulation VIII.

"Non-Federal Minor Permit Change" means a change to a non-federally enforceable term or condition of a Part 70 permit that meets all of the following criteria:

1. The change is not addressed or prohibited by the federally enforceable portion of the Part 70 permit.

2. The change is not a Title I modification.

3. The change does not violate any applicable requirements nor any existing permit terms or conditions.

4. The change does not cause a net emissions increase which triggers a significant permit modification.

5. The change is not subject to any requirements under Title IV (Acid Rain) of the CAA and its implementing regulations.

A non-federal minor permit change requires approval through the District's NSR process and incorporation into the facility operating permit prior to its implementation.

"Outer Continental Shelf (OCS) source" includes any equipment, activity, or facility which -

1. emits or has the potential to emit any air pollutant,

2. is regulated or authorized under the Outer Continental Shelf Lands Act, and

3. is located on the OCS or in or on waters above the OCS.

Such activities include; but are not limited to, platform and drill ship exploration, construction, development, production, processing and transportation. For purposes of this subsection, emissions from any vessel servicing or associated with an OCS source, including emissions while at the OCS source or en route to or from the OCS source within 25 miles of the OCS source, shall be considered direct emissions from the OCS source. Such emissions shall be included in the **"potential to emit"** for an OCS source.

"Part 70 Permit" means that portion of any permit (or group of permits) covering a Part 70 source that is issued, renewed, amended or revised pursuant to Rules 1301 through 1305.

"Part 70 Source" means stationary sources included in the following source categories:

1. A stationary source with the potential to emit a regulated air pollutant or a hazardous air pollutant (HAP) in quantities equal to or exceeding any of the following thresholds:

   a. 100 tons/year of any regulated air pollutant.

   b. 10 tons/year of any individual HAP or 25 tons/year of a combination of HAPs, or any lesser quantity thresholds for any HAP established by EPA rulemaking. Fugitive emissions of HAPs must be counted for the purposes of determining applicability. However, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units are Part 70 sources.

   c. Any lesser quantity thresholds established by EPA rulemaking.

2. Any stationary source defined by the USEPA as major for the District under Title I, Part D (Plans for Non-attainment Areas) of the CAA and its implementing regulations. For ozone non-attainment areas classified by USEPA as **"moderate,"** sources with the potential to emit 100 tons/year of volatile organic compounds (VOC) or oxides of nitrogen (NO_x) are defined by the USEPA as **"major."**

3. Acid rain sources included under the provisions of Title IV of the CAA and its implementing regulations.

4. Any source required to have a preconstruction review permit pursuant to the requirements of the new source review (NSR)/prevention of significant deterioration (PSD) program under Title I, Parts C and D of the CAA and its implementing regulations.

5. Any solid waste incineration unit required to obtain a Part 70 permit pursuant to Section 129(e) of the CAA and its implementing regulations.

6. Any stationary source in a source category required to obtain a Part 70 permit pursuant to regulations promulgated by the USEPA Administrator.

"Potential to Emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restriction on the hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source. Secondary emissions are defined in 40 CFR 52.21(b)(18). The fugitive emissions of a stationary source shall be included in the potential to emit for the stationary source if such source category is specified by the USEPA as qualified to include fugitive emissions, e.g., source categories listed under 40 CFR 70.2 or fugitive HAP emissions from HAP sources.

"Proposed Operating Permit" means a permit with District and federally enforceable conditions proposed for issuance by the District and forwarded to the USEPA for review in compliance with Rule 1304.

"Regulation XIII" means District Regulation XIII, District Rules 1301, 1302, 1303, 1304 and 1305.

"Regulated Air Pollutant" means any air pollutant (a) which is emitted into and otherwise enters the ambient air, as defined in 40 CFR 50.1, and (b) for which the USEPA has adopted an emission limit, standard or other requirement. Regulated air pollutants include:

1. Oxides of nitrogen (NO_x); also, volatile organic compounds (VOC) as defined in 40 CFR 51.166;

2. Any pollutant for which a national ambient air quality standard has been promulgated pursuant to Section 109 of the CAA and its implementing regulations;

3. Any pollutant subject to any standard promulgated under Section 111 (New Source Performance Standards) of the CAA and its implementing regulations;

4. Any ozone-depleting substance specified as class I or II substance pursuant to Title VI of the CAA and its implementing regulations;

5. Any pollutant subject to a standard promulgated under Section 112 (Hazardous Air Pollutants) of the CAA and its implementing regulations, including:

   a. Any pollutant listed pursuant to Section 112(r) of the CAA and its implementing regulations shall be considered a regulated air pollutant upon promulgation of the list.

   b. Any HAP subject to a standard or other requirement promulgated by the USEPA pursuant to Section 112(d) of the CAA or adopted by the District pursuant to Sections 112(g) and 112(j) of the CAA shall be considered a regulated air pollutant for all sources or source categories: (a) upon promulgation of the standard or requirement, or

(b) 18 months after the standard or requirement was scheduled to be promulgated pursuant to Section 112(e)(3) of the CAA.

c. Any HAP subject to a District case-by-case emissions limitation determination for a new or modified source, prior to EPA promulgation or scheduled promulgation of an emissions limitation, shall be considered a regulated air pollutant when the determination is made pursuant to Section 112(g)(2) of the CAA and its implementing regulations. In case-by-case emissions limitation determinations, the HAP shall be considered a regulated air pollutant only for the individual source for which the emission limitation determination was made.

"Responsible Official" means one of the following:

1. For a corporation: a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a Part 70 permit and either:

   a. The facilities employ more that 250 persons or have gross annual sales or expenditures exceeding $25,000,000 (in second quarter 1980 dollars); or

   b. The delegation of authority to such representatives is approved in advance by the District.

2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

3. For a municipality, state, federal or other public agency: either a principal executive officer or ranking elected official. For the purposes of this rule, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

4. For acid rain sources:

   a. The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the federal CAA or 40 CFR 72 are concerned; or

   b. The designated representative for any other purposes under Rules 1301 through 1305.

"Significant Part 70 Permit Action" means the:

1. Issuance of an initial Part 70 permit, or

2. Renewal of a Part 70 permit, or

3. Reissuance of a Part 70 permit after reopening and modification/revocation of the permit, or

4. Modification of a Part 70 permit, except an administrative permit amendment, a minor permit modification or a non-federal minor permit change.

"Significant Part 70 Permit Modification" means any of the following:

1. Any modification to a Part 70 permit that is not an administrative amendment, a minor permit modification or a non-federal minor permit change as these terms are defined herein;

2. A Part 70 permit modification allowing a net emissions increase from a Part 70 source that equals or exceeds any of the threshold limits triggering public review, listed in the District's NSR Rules 802.G.1.b.2) and 803.K.6.

3. A Part 70 permit modification allowing a net emissions increase of any other regulated air pollutant from any Part 70 source that equals or exceeds the significance (or de minimis) level for the pollutant listed by the USEPA, e.g., 40 CFR 52.21 or Federal Register rulemaking promulgation pursuant to Section 112(g) of the CAA.

4. Any significant changes in existing monitoring permit terms or conditions;

5. Any relaxation of recordkeeping or reporting permit terms and conditions; and,

6. Any equivalent or identical replacement of an emissions unit that is subject to standards promulgated under CAA, Sections 111 or 112.

"State Implementation Plan (SIP)" means the USEPA-approved plan submitted by each State under 42 U.S. C., Section 7401, *et seq.* (federal CAA and its implementing regulations) to achieve and maintain federal ambient air quality standards (NAAQS).

"Stationary Source" means any building, structure. facility, or installation which emits or may emit any regulated air pollutant or any pollutant listed pursuant to Section 112 (b) of the Act.

1. Department of Defense Facilities. Department of Defense stationary sources shall be subject to the following, as applicable.

   a. Stationary Source Designations. For air pollutants regulated under Title I of the Act, a Department of Defense stationary source shall be designated as set forth below if the responsible official submits a plan to the Control Officer that meets the requirements set forth in paragraph (1)(b), below.

      1. Stationary Source Designation. Each of the following shall be a separate stationary source:

         Air Force primary mission
         Remediation
         NASA
         Flight Line
         Navy
         Range Group
         Amenities Group
         Hospital Services
         Commercial Space

      2. Exclusion of Sources. No stationary source at a Department of Defense facility shall include the following activities: military tactical support equipment, infrastructure maintenance equipment, or building maintenance equipment

   b. Emission Reductions; Plan -- Requirements.

      1. Plan Submittal And Requirements. The responsible official shall submit a plan to the Control Officer which shall provide that:

(a) by April 30 1999, thirty percent of the candidate boilers identified in the plan shall be retrofitted or under construction;

(b) by April 30, 2000, two tons per year of ozone precursor emission reductions shall be achieved;

(c) by April 30, 2001, seventy percent of the candidate boilers identified in the plan shall be retrofitted or under construction; and

(d) by November 30, 2002, ten or more tons per year of ozone precursor emission reductions shall be achieved.

These milestones shall be based on actual emissions established pursuant to baseline protocols submitted as part of the plan by the responsible official and approved by the Control Officer. Failure to achieve a milestone shall result in expiration pursuant to paragraph (2)(b), below; however, such failure shall not constitute a violation of District Rules and Regulations. Achieved emission reductions shall be enforceable pursuant to paragraph (1)(b)(3), below.

2. Plan Approval. The Control Officer shall approve a plan submitted pursuant to (1)(b)(1), above, if the conditions in (1)(b)(1) are met and the Control Officer finds that the emission reductions are real, quantifiable, surplus, and enforceable. The Control Officer shall submit the approved plan to the USEPA for inclusion in the State Implementation Plan. The plan shall become federally enforceable upon the USEPA Administrator's approval into the state implementation plan. EPA will include the plan in the state implementation plan within one year after submittal by the District if EPA finds that the emission reductions are real, quantifiable, surplus and enforceable. The Control Officer may extend that time for good cause.

3. Final Project Agreement. The responsible official shall enter into a Final Project Agreement with the Control Officer and the USEPA which commits the Department of Defense to the emission reductions specified in paragraph (1)(b)(1) **"Emission Reductions; Plan Submittal And Requirements,"** above.

2. Department of Defense Facilities - Expiration. The provisions of paragraph (1) **"Department of Defense Facilities,"** above. shall expire if any of the following conditions occur:

a) The stationary source becomes subject to permit under this Regulation.

b) The stationary source does not achieve the emissions reductions required by this Regulation pursuant to a schedule of milestones included in the Plan approved by the Control Officer pursuant to paragraph (1)(b), above.

c) USEPA does not approve the plan for inclusion in the state implementation plan within one year of approval of the plan by the Control Officer. The Control Officer may extend this period for up to one year or until such time as USEPA takes action on the plan, whichever occurs earlier.

3. Department of Defense Facilities - Applicable Requirements After Expiration.

a) Stationary Source Designations. Upon expiration of paragraph (1) **"Department of Defense Facilities,"** the stationary source shall include all applicable activities and sources consistent with federal and state law and these Rules and Regulations. If such

inclusion subjects the stationary source to the permitting requirements of this Regulation, the responsible official shall apply for and obtain a permit in accordance with this Regulation and applicable federal regulations.

b) Achieved Emission Reductions Remain Enforceable. Notwithstanding any other provision in this Regulation, any achieved emission reductions shall remain in place and shall be enforceable. Achieved emission reductions shall be emission reductions required in an approved plan that have been implemented or are being retrofitted at the time of expiration. Failure to maintain any achieved and verified reductions obtained through execution of the plan shall constitute a violation of District Rules and Regulations.

4. This definition (**"Department of Defense Facilities," "Expiration",** and **"Applicable Requirements After Expiration"**) shall remain in effect only until January 1, 1998, and as of such date is repealed, unless a later enacted rule, which is adopted before January 1, 1998, deletes or extends such date or unless a plan is filed with the Control Officer by that date and later approved by the Control Officer.

"Building, structure or facility" as referred to in the stationary source definition includes all pollutant emitting activities, including activities located in California coastal waters adjacent to the South Central Coast Air Basin boundaries and those areas of Outer Continental Shelf waters for which the District is the corresponding onshore area which:

1. belong to the same industrial grouping, and

2. are located on one or more contiguous or adjacent properties (except for activities located in California coastal waters or are on the Outer Continental Shelf), and

3. are under the same or common ownership, operation, or control or which are owned or operated by entities which are under common control.

Pollutant emitting activities shall be considered as part of the same industrial grouping if they are part of a common production process. (Common production process includes industrial processes, manufacturing processes, and any connected processes involving a common raw material.)

"Common operations" include operations which are related through dependent processes, storage or transportation of the same or similar products or raw material. The emissions from all cargo carriers (excluding vehicles) including marine vessels which load or unload at the stationary source shall be considered emissions from the stationary source while operating within:

1. the air basin, including California Coastal Waters adjacent to the air basin;

2. the Outer Continental Shelf for which the District is the corresponding onshore area; and

3. 25 miles of an Outer Continental Shelf source for which the District is the corresponding onshore area.

"Building Maintenance Equipment" as referred to in the stationary source definition means internal combustion engines used exclusively at a Department of Defense facility for the maintenance of buildings that meet the definition of **"nonroad engine,"** and are exempt from permit under Regulation II.

"Infrastructure Maintenance Equipment" as referred to in the stationary source definition means internal combustion engines used exclusively at a Department of Defense facility to maintain roads and public service utilities that meet the definition of **"nonroad engine"** and are exempt from permit under Regulation II.

"Installation" as referred to in the stationary source definition includes any operation, article, machine, equipment, contrivance or grouping of equipment belonging to the same two-digit standard industrial classification code, which emits or may emit any regulated pollutant or HAP, and are located on one or more contiguous properties and under common control.

"Internal combustion engine" shall mean a reciprocating internal combustion engine.

"Military Tactical Support Equipment" as referred to in the stationary source definition means a portable internal combustion engine that meets the definition of **"nonroad engine"** that is built to military specifications, owned by the U.S. Department of Defense, and/or the U.S. military services, and is used in combat, combat support, combat service support, tactical or relief operations, or training for such operations. Examples include, but are not limited to, engines associated with portable generators, aircraft start carts, heaters, and lighting carts.

"Nonroad Engines" as used in the definitions of **"Building Maintenance Equipment," "Infrastructure Maintenance Equipment"** and **"Military Tactical Support Equipment,"** mean any internal combustion engine:

1. in or on a piece of equipment that is self propelled or serves a dual purpose by both propelling itself and performing another function; or

2. in or on a piece of equipment that is intended to be propelled while performing its function (such as lawn mowers), or

3. that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indications of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

An internal combustion engine is not a nonroad engine if:

1. the engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the federal Clean Air Act, or

2. the engine otherwise included in paragraph 3 above and remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (that is, at least two years) and that operates at that single location approximately three months (or more) each

year. This paragraph does not apply to an engine after the engine is removed from the location.

As applied to an attainment pollutant, **"stationary source"** shall be interpreted to mean facility-wide. The term **"installation"** shall have the same meaning as **"building, structure, or facility."**

"Title I (or Major) Modification" means a modification that meets any of the following criteria:

1. The potential to emit from any new or modified emissions unit(s) at the major stationary source which are covered by the application(s) for such permit modification(s) plus all other net emissions increases at the source which occurred during the specified contemporaneous evaluation period listed below, are equal to or greater than the limits in Table 1301-A,

Table 1301-A

Particulate Matter (PM_{10})	15.0 tons/yr
Sulfur Oxides(SOx)	40.0 tons/yr
Carbon Monoxide	100.0 tons/yr
VOC	40.0 tons/yr
Nitrogen Oxides(NOx)	40.0 tons/yr
Lead	0.6 ton/yr

2. The potential to emit any regulated hazardous air pollutant (HAP) from any new or modified emission unit(s) at the Part 70 source which are covered by the application(s) for such permit modification(s) plus all other net emissions increase at the source which occurred during the specified contemporaneous period would be equal to or greater than the de minimis level for such regulated HAP specified by USEPA rulemaking pursuant to Section 112(g) of the federal CAA.

3. For the purpose of defining Title I modification, the specified contemporaneous evaluation period to compute emissions increase shall consist of a period of five (5) consecutive calendar years, ending with the calendar year during which the complete application for such proposed change is submitted to the District. For computing Title I emission decreases, the period shall expand and extend further to the date on which operation begins for the proposed modified emissions unit.

D. Requirements

All Part 70 source permits and permit applications for issuance, amendments, modifications and renewals shall be drafted based on the definitions listed in this Rule along with the provisions listed in Regulation XIII.

A person shall operate all equipment and emission units located at a Part 70 source in compliance with all terms, applicable requirements and conditions specified in the Part 70 permit at all times. Any noncompliance with a Part 70 permit term, requirement or condition is a violation of Regulation XIII. Additionally, any noncompliance with a federally enforceable requirement or resultant permit term or condition constitutes a violation of the federal CAA and its implementing regulations. Each day during any portion of which a violation occurs is a

separate offense. Any Part 70 permit noncompliance shall be grounds for appropriate enforcement action under the California Health & Safety Code and/or the federal CAA and its implementing regulations.

E. **Compliance Schedule**

Provisions of this Rule become effective on the date this Rule is approved by the USEPA. All Part 70 sources subject to this Rule, except the outer continental shelf (OCS) sources, shall comply with this Rule effective that date. All OCS sources shall comply with this rule either on the USEPA's approval date for this rule or on the date USEPA delegates the OCS program to the District, whichever is later.

F. **Effective Date of Rule**

The requirements of this rule shall become effective on the date of approval of this rule by the USEPA.