EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

Rule 101
General Provisions and Definitions

Adopted: February 15, 2000

101.1 General

A. **Title**: These Rules and Regulations shall be known as the Rules and Regulations of the El Dorado County Air Pollution Control District.

B. **Applicability**: Except as otherwise specifically provided in these rules and regulations or where the context otherwise indicates, the provisions of this rule shall apply to all rules and regulations of the El Dorado County Air Pollution Control District.

C. **Severability**: If any regulation, rule, section, subsection, sentence, clause, phrase, or portion of these rules and regulations is, for any reason, held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision , and such holding shall not affect the validity of the remaining portions of the Rules and Regulations of the El Dorado County Air Pollution Control District.

101.2 Definitions

Except as otherwise provided in the Rules and Regulations or where the context otherwise indicates, words used in the Rules and Regulations are used in exactly the same sense as the same words used in Division 26 of the Health and Safety Code of the State of California.

Affected Pollutants	Those pollutants for which an ambient air quality standard has been established by the Environmental Protection Agency or by the ARB and the precursors to such pollutants, and those pollutants regulated by the Environmental Protection Agency under the Federal Clean Air Act or by the ARB under the Health and Safety Code including volatile organic compounds, nitrogen oxides, sulfur oxides, PM-10, carbon monoxide, ethylene, lead, asbestos, beryllium, mercury, vinyl chloride, fluorides, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, and reduced sulfur compounds, and those pollutants which the Environmental Protection Agency, after due process, or the ARB or the District, after public hearing, determine may have a significant adverse effect on the environment, the public health, or the public welfare.
Air Contaminant or Pollutant	Any matter which causes or tends to cause the degradation of air quality when discharged, released, or propagated by other means into the atmosphere. Such matter includes, but is not limited to, smoke, dust, charred paper, soot, grime, carbon compounds, noxious acids, fumes, gases, odors, or particulate matter, or any combination thereof.
Air Pollution Control Officer	The Air Pollution Control Officer of the Air Pollution Control District of El Dorado County or his authorized representative.
Allowable Emissions	The emission rate calculated using the maximum design capacity of the source, unless the source is subject to Permit to Operate conditions which limit the

	operating rate, hours of operation, or both; the most stringent of any applicable emission limitations contained in the Rules and Regulations; or, as specified in a Permit to Operate condition(s).
Alter	Any addition to, enlargement of, replacement of, major modification, or change of the design, capacity, process, or arrangement; or, increase in the connected loading of equipment or control apparatus, which will significantly increase or effect the kind or amount of air contaminants emitted.
Ambient	Local atmospheric conditions such as temperature, barometric pressure, wind speed and direction, pollutant concentrations, etc.
Ambient Air Quality Standards	The standards define maximum concentrations of pollutants, in the air, that the District is striving to achieve. Both the state and federal governments have promulgated standards. Primary standards are designed to protect health with an adequate margin of safety. Secondary standards are designed to protect public welfare from any known or anticipated adverse effects. The standards are subject to periodic revision as deemed necessary. All references to "ambient air quality standards" in these Rules and Regulations shall be considered to be the National Ambient Air Quality Standards unless denoted otherwise.
ARB	The California State Air Resources Board, or any person authorized to act on its behalf.
Atmosphere	The air that envelopes or surrounds the earth. Where air pollutants are emitted into a building not designed specifically as a piece of air pollution control equipment, such emissions into the building shall be considered to be an emission into the atmosphere.
Attainment Pollutant	A pollutant for which the Environmental Protection Agency has designated the Air Pollution Control District or a sub-District zone, as either an attainment or unclassified area.
Baseline Concentration	The ambient concentration level reflecting actual air quality as monitored or modeled as of (1) January 1, 1981, minus any contribution from major stationary sources and major modifications on which construction commenced on or after January 5, 1975, or attainment pollutants; and (2) the date an application for Authority to Construct is deemed complete by the Air Pollution Control Officer for nonattainment pollutants.
Board	The El Dorado County Air Pollution Control Board.
Breakdown Condition	An unforeseeable failure or malfunction of (1) any air pollution control equipment or related operating equipment which causes a violation of any emission limitation or restriction prescribed by the Rules and Regulations or state law; or, (2) any in-stack continuous monitoring equipment. The failure or malfunction shall not be the result of neglect or disregard of any air pollution control law, rule, or regulation; intentional or the result of negligence; the result of improper maintenance; a recurrent breakdown of the same equipment; or, a nuisance.
Calendar Quarter	Any of the following three month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, or October 1 through December 31.
Calendar Year	The twelve-month period of January 1 through December 31
California Environmental Quality Act (CEQA)	Public Resources Code Section 21000, et seq.

Cold Cleaner	Any batch loaded, non-boiling solvent degreaser.
Combustible or Flammable Waste	Any garbage, rubbish, trash, rags, paper, boxes, crates, excelsior, ashes, offal, carcass of a dead animal, petroleum product waste, or any other combustible or flammable refuse material.
Combustion Contaminant	Any particulate matter discharged into the atmosphere from the burning of any material which contains carbon in either the free or combined state.
Contiguous Property	Two or more parcels of land with a common boundary or separated solely by a public roadway or other public right-of-way.
Control Equipment	A device which reduces or eliminates the release of an air contaminant to the atmosphere.
Criteria Pollutant	An air pollutant regulated by a national ambient air quality standard contained within 40 CFR Part 50.
Day	the 24-hour period stating at twelve midnight and continuing up to the subsequent twelve midnight hour.
District	The Air Pollution Control District of El Dorado County.
Dust	Minute solid particles released into the air by natural forces or by mechanical processes such as crushing, grinding, covering, bagging, sweeping, milling, drilling, demolishing, blasting, shoveling, conveying, or other similar processes
Emission	Air contaminants released into the atmosphere.
Emission Data	Measured or calculated concentrations or weights of air contaminants emitted into the atmosphere. Data used to calculate emission data is not emission data.
Emission Point	The place, located in a horizontal plane and vertical elevation, at which air contaminants enter the atmosphere.
Emission Unit	Any part of a stationary source which emits or could have the potential to emit any pollutant subject to regulation.
EPA	United States Environmental Protection Agency or any person authorized to act on its behalf.
Exempt Compounds:	Compounds which are not involved in the generation of ozone and, as such, are not considered to be a Reactive Organic Compound. They are as follows:
General compounds	Methane carbon monoxide carbon dioxide Carbonic acid acetone ammonium carbonate metal carbides or carbonates ethane methyl acetate completely methylated siloxanes
Chlorinated compounds	methylene chloride (dichloromethane) 1,1,1-trichloroethane (methyl chloroform) 1,1,2,2-tetrachloroethane (perchloroethylene)
Fluorinated compounds	2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane
Chlorinated and fluorinated compounds	parachlorobenzotrifluoride (PCBTF)
Chlorofluorocarbons (CFCs)	trichlorofluoromethane (CFC-11)

	dichlorodifluoromethane (CFC-12) 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113) 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114) chloropentafluoroethane (CFC-115)
Hydrochlorofluorocarbons (HCFCs)	chlorodifluoromethane (HCFC-22) chlorofluoromethane (HCFC-31) 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123) 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a) 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124) 1,1-dichloro-1-fluoroethane (HCFC-141b) 1-chloro-1,1-difluoroethane (HCFC-142b) 1-chloro-1-fluoroethane (HCFC-151a) 3,3-dichloror-1,1,1,2,2-pentafluororpropane (HCFC-225ca) 1,3-dichloror-1,1,2,2,3-pentafluororpropane (HCFC-225cb)
Hydrofluorocarbons (HFCs)	trifluoromethane (HFC-23) difluoromethane (HFC-32) 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee) 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) ethylfluoride (HFC-161) 1,1,1,2,3,3-hexafluoropropane (HFC-236ea) 1,1,1,3,3,3-hexafluoropropane (HFC-236fa) 1,1,2,2,3-pentafluoropropane (HFC-245ca) 1,1,2,3,3-pentafluoropropane (HFC-245ea) 1,1,1,2,3-pentafluoropropane (HFC-245eb) 1,1,1,3,3-pentafluoropropane (HFC-245fa) 1,1,1,3,3-pentafluorobutane (HFC-365mfc)
	The following four classes of perfluorocarbon compounds: a. Completely fluorinated alkanes. b. Completely fluorinated ethers, with no multiple bonding of carbons. c. Completely fluorinated tertiary amines with no multiple bonding of carbons. d. Those containing sulfur which bonds only with carbon and fluorine, but has no multiple bonding of carbons. Perfluorocarbon and siloxane compounds are assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon and siloxane compounds) and the amounts present in the product or process and provides a validated test method which can be used to quantify the specific compounds.
Facility	Any building, structure, facility, or emission unit which emits or may emit any affected pollutant directly or as a fugitive emission. 1. Building, structure, facility or emission unit includes all pollutant emitting activities which: a. belong to the same industrial grouping; b. are located on one property, or on two or more contiguous properties; 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. 2. Pollutant emitting activities shall be considered as part of the same industrial grouping if:

	a. they have the same two-digit standard industrial classification code under the system described in the 1987 Standard Industrial Classification Manual; or, b. they are part of a common production process, i.e. an industrial, manufacturing, or any connected process which involves a common material.
Federal Land Manager	Means, with respect to any lands in the United States, the Secretary of the department with authority over such lands.
Flue	Any duct or passage for air, gases or the like, such as a stack or chimney.
Fossil Fuel	Natural gas, petroleum, coal, and any form of solid, liquid or gaseous fuel derived from such materials.
Fossil Fuel Fired Steam Generator	A furnace or boiler which burns fossil fuel for the primary purpose of producing steam by heat transfer.
Fugitive Dust	Solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, as a result of operation of a facility.
Fugitive Emissions	Emissions which could not reasonably be passed through a stack, chimney, vent, or other functionally equivalent opening. Fugitive hazardous air pollutant emissions shall be considered when determining whether a source is a major stationary source pursuant to Title V of the Federal Clean Air Act as amended in 1990 and Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM. The fugitive emissions of a source shall not be considered in determining whether it is a major stationary source pursuant to Title V, unless the source belongs to one of the following categories of stationary sources listed in 40 CFR 70.2, "Definitions", "Major Source" (2).
Fumes	Minute solid particles generated by the condensation of vapors from the sublimation of solid matter or evaporation of liquid matter
Hazardous Air Pollutant (HAP)	Any air pollutant listed pursuant to Section 112(b) of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.).
Health and Safety Code	Division 26 of the State of California Health and Safety Code, unless specifically listed as otherwise.
Hearing Board	The appellate review board of the District as provided for in the Health and Safety Code.
Incineration	Operation in which waste material is combusted with the principle purpose, or with the principle result, being to reduce its bulk or facilitate its disposal.
Incinerator	Any furnace or other closed fire chamber used to dispose of combustible waste by burning; the products of combustion are directed through a flue or chimney.
Installation	The placement, assemblage or construction of equipment or control apparatus at the premises where the equipment or control apparatus will be used, including all preparatory work at such premises.
Lake Tahoe Air Basin	Established pursuant to Section 39606 of the Health and Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60113(a) or 40 CFR 81.275. This air basin is delineated on an official map on file at the California Air Resources Board Headquarters Office.
Lowest Achievable Emission Rate	For any source, the most stringent of: 1. The most effective emission limitation which the Environmental Protection Agency has certified as contained in the implementation plan of any state,

	approved under the Clean Air Act, for such class or category of source, unless the owner or operator of the proposed source demonstrates to the satisfaction of the Air Pollution Control Officer that such limitation is not achievable; 2. The most effective emissions control technique which has been achieved in practice, for such category or class of source; or, 3. Any other emission control technique found, after public hearing, by the Air Pollution Control Officer to be technologically feasible and cost effective for such class or category of sources, or for a specific source. In no event shall the application of lowest achievable emission rate allow for emissions in excess of those allowable under 40 CFR Part 60.
Major Stationary Source	A stationary source which emits or has the potential to emit: 25 tons per year (tpy) or more of nitrogen oxides, 25 tpy or more of reactive organic compounds, 100 tpy or more of carbon monoxide, 100 tpy or more of PM10, 100 tpy of sulfur oxides, 100 tpy of any regulated pollutant or levels specified by the U.S. Environmental Protection Agency pursuant to the Federal Clean Air Act of 1990, Section 112(a)(1). In addition, any physical change occurring at a stationary source not otherwise qualifying as a major stationary source, which would constitute a major stationary source by itself makes the source a major stationary source. For the purposes of *Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM,* a major stationary source also includes any source which emits or has a potential to emit 10 tpy of one HAP or 25 tpy of two or more Hazardous Air Pollutants (HAPs), as listed pursuant to Section 112(b) of the Federal Clean Air Act, or any lesser quantity threshold promulgated by the U.S. Environmental Protection Agency.
Major Modification	Modification to a major stationary source which results in an increase in the potential to emit greater than: 25 tons per year of nitrogen oxides, 25 tons per year of reactive organic compounds, 100 tons per year of carbon monoxide, 40 tons per year of sulfur oxides, or 15 tons per year of PM10 aggregated with all other increases in potential to emit over the period of five consecutive years before the application for modification, and including the calendar year of the most recent application.
Modification	Any physical change, change in method of operation (including change in fuel characteristics), addition to, or any change in hours of operation, or change in production rate of, which: 1. For an emissions unit: a. Would necessitate a change in permit conditions; b. Is not specifically limited by a permit condition; or, c. Results in an increase, a decrease, or no change in emissions which are not subject to emission limitations. 2. For a stationary source: is a modification of any emission units, or addition of any new emission units. 3. The following shall not be considered a modification: a. A change in ownership.

	b. Routine maintenance and repair. c. A reconstructed stationary source or emission unit which shall be treated as a new stationary source or emission unit. d. The addition of a continuous emission monitoring system.
Mountain Counties Air Basin	Established pursuant to Section 39606 of the Health & Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60111 (i), the Mountain Counties Air Basin includes all of El Dorado County except that portion included in the Lake Tahoe Air Basin, defined by 17 CCR 60113(b).
Multiple-Chamber Incinerator	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, inter-connected by gas passage-ports or ducts employing adequate design parameters necessary for maximum combustion of the material to be burned.
Nonattainment Pollutant	Any pollutant for which an ambient air quality standard was exceeded within the District more than three (3) discontinuous times (or, for annual standards, more than one (1) time) within the three (3) years immediately preceding the date when the application for the Authority to Construct was filed, or which has been designated nonattainment pursuant to final rule-making by the Environmental Protection Agency published in the Federal Register, or which has been designated nonattainment by the ARB pursuant to Section 39607 of the Health and Safety Code. Any pollutant which is a precursor to a nonattainment pollutant is, itself, a nonattainment pollutant.
NOx	The sum of all oxides of nitrogen, except for nitrous oxide, collectively expressed as nitrogen dioxide.
Operation	Any physical action resulting in a change in the location, form or physical properties of a material, or any chemical action resulting in a change in the chemical composition or properties of a material
Orchard or Citrus Heaters	Any article, machine, equipment, or other contrivance, burning any type of fuel or material, used or capable of being used for the purpose of giving protection from frost damage.
Organic Solvents	Any organic materials used for cleaning which are liquids at standard conditions. Owner or Operator - Any person who owns, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.
Particulate Matter	Any material which can exist in a finely divided form as a liquid or solid at standard conditions, except uncombined water.
Pathological Waste	Includes, but not limited to, human or animal tissue, or natural constituents thereof.
Person	Any person, company, association, organization, user, partnership, business trust, corporation, firm, contractor, supplier, installer, operator, owner or operator, government agency or public district, or officer or employee thereof.
PM10 (PM10)	Particulate matter with an aerodynamic diameter smaller than or equal to a nominal 10 microns as measured by an applicable reference test method or method found in Article 2, Subchapter 6, Title 17, California Code of Regulations (commencing with Section 94100).

Portable Equipment	Equipment which is periodically relocated and is not operated more than a total of 180 days at any one location in the District within any continuous 12 month period.
PPMV	Parts per million by volume expressed on a dried gas basis.
Precursor	A pollutant that, when emitted into the atmosphere, may undergo either a chemical or physical change which then produces another 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-secondary air contaminant relationships shall be used: **Precursor** — **Secondary Air Contaminant** *Reactive Organic Compounds* — Ozone PM10 (organic fraction) *Oxides of Nitrogen* — Ozone Nitrogen dioxide PM10 (nitrate fraction) *Oxides of Sulfur* — Sulfur dioxide Sulfates PM10 (sulfate fraction)
Process Weight Per Hour	The total weight, including contained moisture, of all materials introduced into any specific process, which process may cause an emission. Solid fuels are considered as part of the process weight, but liquid and gaseous fuels and combustion air are not. (The Process Weight Per Hour will be derived by dividing the total process weight by 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.)
Public Record	Any record made available to the public containing any information relating to the conduct of the public's business that is prepared, owned, used or retained by the District, except "trade secrets" as defined in Rule 514.
Reactive Organic Compound	Any compound containing carbon except exempt compounds as defined in this rule.
Record	Handwriting, typewriting, printing, photostatting, photographing, and every other means of recording upon any form of communication or representation, including letters, words, pictures, sounds, or symbols, or any combination thereof, and all papers, maps, magnetic or punched cards, drums, electronic media, files and other documents.
Reduced Sulfur Compounds	Hydrogen sulfide, carbon disulfide, and carbonyl sulfide.
Regulated Air Pollutant	A pollutant which is emitted into or otherwise enters the atmosphere and for which the State or the EPA has adopted an emission limit, standard, or other requirement. Regulated air pollutants include: 1. Oxides of nitrogen and volatile organic compounds; 2. Any pollutant for which a national ambient air quality standard has been promulgated pursuant to Section 109 of the Federal Clean Air Act; 3. Any pollutant subject to a new source performance standard promulgated pursuant to Section 111 of the Federal Clean Air Act;

4. Any ozone depleting substance specified as a Class I (chlorofluorocarbons) or Class II (hydrofluorocarbons) substance pursuant to Title VI of the Federal Clean Air Act; and

5. Any pollutant subject to a standard or requirement promulgated pursuant to Section 112 of the Federal Clean Air Act, including:

    a. Any pollutant listed pursuant to Section 112(r) of the Federal Clean Air Act (Prevention of Accidental Releases) 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 U.S. Environmental Protection Agency pursuant to Section 112(d) or adopted by the District pursuant to 112(g) and (j) of the Federal Clean Air Act shall be considered a "regulated air pollutant" for all sources or categories of sources:
        1. upon promulgation of the standard or requirement, or
        2. 18 months after the standard or requirement was scheduled to be promulgated pursuant to Section 112(e)(3) of the Federal Clean Air Act.

    c. Any HAP subject to a District case-by-case emissions limitation determination for a new or modified source, prior to the U.S. Environmental Protection Agency 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 Federal Clean Air Act. 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.

Residential Rubbish | Refuse originating from residential uses and includes wood, paper, cloth, cardboard, tree trimmings, leaves, lawn clippings, and dry plants.

1. **Rubbish** - Combustible and noncombustible solid wastes of commercial and industrial establishments, institutions, etc., exclusive of the highly putrescible wastes (garbage). Rubbish consists of such materials as paper, metal, wood, cans, furniture, yard trimmings, and ceramics.

2. **Responsible Official** - An individual with the authority to certify that a source complies with all applicable requirements, including the conditions of permits issued such source in accordance with Regulation V PERMITS TO OPERATE. A Aresponsible official@ is:

3. **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, or 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 permit and either:

	a. The facilities employ more than 250 people or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or, b. The delegation of authority to such representative is approved in advance by the Air Pollution Control Officer. 4. **For a partnership or sole proprietorship** - a general partner or the proprietor, respectively. 5. **For a municipality, state, federal, or other public agency** - either the principal executive officer or a ranking elected official. 6. **For an acid rain unit subject to Title IV (Acid Deposition Control) of the Clean Air Act** - the designated representative of that unit for any purposes under Title IV and Rule 522 Title V - FEDERAL OPERATING PERMITS PROGRAM.
School	Any public or private school used for the primary purpose of the education of more than 12 children in kindergarten or grades 1 through 12, but does not include any private school in which education is primarily conducted in private homes.
Secondary Emissions	Emissions within the District from (1) all cargo carriers, excluding motor vehicles as defined in the Vehicle Code, which load or unload at a facility, and (2) all offsite support facilities which would be constructed as a result of construction or modification of a facility.
Section	All section references are to the Health and Safety Code unless some other code is specifically mentioned.
Sensitive Receptor	Areas, facilities, or groups that may be more heavily impacted by various activities, which create air pollutants, based on the nature of the contaminant. Examples include, but are not limited to, towns and villages, campgrounds, hospitals, nursing homes, schools, airports, public events, shopping centers, and mandatory Class I Federal areas, the elderly, the young, and people with respiratory difficulty.
Source Operation	The last operation preceding the emission of an air contaminant, which operation (a) results in the separation of the air contaminants from the process materials, or the conversion of process materials into air contaminants, as in the case of combustion of fuel, and (b) is not an air pollution abatement operation.
SOx	means the sum of all oxides of sulfur, collectively expressed as sulfur dioxide.
Standard Conditions	A temperature of 68 degrees Fahrenheit and an atmospheric pressure of 14.7 pounds per square inch absolute. Results of all analyses and tests shall be calculated and reported at this temperature and pressure.
Standard Cubic Foot of Gas	The amount of gas that would occupy a volume of one (1) cubic foot, if free of water vapor, at standard conditions.
Stationary Source	Same as Facility.
Tahoe Basin	Same as Lake Tahoe Air Basin.
Totally Reduced Sulfur Compounds	Hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide.

Toxic Air Contaminant	Means an air contaminant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health, including air contaminants listed as such in the California Code of Regulations Title 17 Section 93000, and hazardous air pollutants identified pursuant to the federal Clean Air Act, Title I, Section 112(b).
Volatile Organic Compounds	Same as Reactive Organic Compounds.
Wipe Cleaning	Method of cleaning which utilizes a material, such as a rag, wetted with solvent coupled with a physical rubbing process to remove contaminants from surfaces.

100.3 Standards

Disclosure of Data: The Air Pollution Control Officer shall, upon due notice, make the following data and information available to the public and other government agencies for examination and provide copies thereof where appropriate:

a. Air pollution data, including trade secrets, shall be disclosed in accordance with the provisions of Government Code Section 6254.7.

b. Data required to be submitted to the District under the Air Toxics "Hot Spots" Information and Assessment Act, and which the operator believes to be a trade secret, shall be protected from disclosure in accordance with the provisions of Health and Safety Code Section 44346.

RULE 204 - WET PLUMES

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

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 215 - ARCHITECTURAL COATINGS

Revised: 9/08/94

ADOPTION DATE:

RESCINDED DATE: September 27, 1994
ADOPTION DATE: September 27, 1994

215.1 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 in the District.

215.2 DEFINITIONS:

A. **APPURTENANCES:** Accessories to an architectural structure, including, but not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain-gutters and down spouts, window screens, lamp-posts, heating and air conditioning equipment, other mechanical equipment, large fixed stationary tools, and concrete forms.

B. **ARCHITECTURAL COATINGS:** Coatings applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs.

C. **BELOW GROUND WOOD PRESERVATIVES:** Coatings formulated to protect below ground wood from decay or insect attack and which contains a wood preservative chemical registered by the California Department of Food and Agriculture.

D. **BITUMINOUS COATING MATERIALS:** Black or brownish materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits or as residues from the distillation of crude petroleum oils, or of low grades of coal.

E. **BOND BREAKERS:** Coatings applied between layers of concrete to prevent the freshly poured top layer of concrete from bonding to the layer over which it is poured.

F. **CLEAR WOOD FINISHES:** Clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

G. **CONCRETE CURING COMPOUND:** Coatings applied to freshly poured concrete to retard the evaporation of water.

H. **DRY FOG COATING (MILL WHITE COATING):** Coatings formulated only for spray application such that overspray droplets dry before subsequent contact with other surfaces.

I. **EXEMPT ORGANIC COMPOUNDS:** Means any of the following compounds:

1. methane (CH_4)
2. carbon dioxide (CO_2)
3. carbon monoxide (CO)
4. carbonic acid ($CO(OH)_2$)
5. metallic carbides (M-C) or carbonates ($M\text{-}CO_3$)
6. ammonium carbonate ($(NH_4)HCO_3(NH_4)CO_2NH_2$)
7. 1,1,1-trichloroethane (methyl chloroform)
8. methylene chloride (dichloromethane)
9. trichlorofluoromethane (CFC-11)
10. dichlorodifluoromethane (CFC-12)
11. chlorodifluoromethane (HCFC-22)
12. trifluoromethane (HFC-23)
13. 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113)
14. 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)

15. chloropentafluoroethane (CFC-115)
16. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
17. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
18. pentafluoroethane (HFC-125)
19. 1,1,2,2-tetrafluoroethane (HCFC-134)
20. 1,1,1,2-tetrafluoroethane (HCFC-134a)
21. 1,1-dichloro-1-fluoroethane (HCFC-141b)
22. 1-chloro-1,1-difluoroethane (HCFC-142b)
23. 1,1,1-trifluoroethane (HFC-143a)
24. 1,1-difluoroethane (HFC-152a)
25. The following 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. sulphur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine. Perfluorocarbon compounds will be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present on the product or process and provides an EPA approved test method which can be used to quantify the specific compounds.

J. **FIRE RETARDANT COATINGS:** Coatings which have a flame spread index of less than 25 when tested in accordance with ASTM Designation E-84-87, "Standard Test Method for Surface Burning Characteristics of Building Material", after application to Douglas fir according to the manufacturer's recommendations or when tested by an equivalent method approved in writing by the APCO.

K. **FORM RELEASE COMPOUNDS:** Coatings applied 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.

L. **GRAMS OF VOC PER LITER OF COATING LESS WATER AND LESS EXEMPT ORGANIC COMPOUNDS:** The weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

Where:

W_s = Weight of volatile compounds (grams)

W_v = Weight of water (grams)

W_{es} = Weight of exempt organic compounds (grams)

V_m = Volume of material (liters)

V_v = Volume of water (liters)

V_{es} = Volume of exempt organic compounds (liters)

M. **GRAMS OF VOC PER LITER OF MATERIAL:** The weight of VOC per volume of material and can be calculated by the following equation:

Where:

W_s = Weight of volatile compounds (grams)

W_w = Weight of water (grams)

W_{es} = Weight of exempt organic compounds (grams)

V_m = Volume of material (liters)

N. **GRAPHIC ARTS COATINGS (SIGN PAINTS):** Coatings formulated for and hand-applied 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.

O. **HIGH-TEMPERATURE INDUSTRIAL MAINTENANCE COATINGS:** Industrial maintenance coatings

formulated for and applied to substrates exposed continuously or intermittently to temperatures above 400°F.

P. **INDUSTRIAL MAINTENANCE ANTI-GRAFFITI COATINGS:** Two component clear industrial maintenance coatings formulated for and applied to exterior walls and murals to resist repeated scrubbing and exposure to harsh solvents.

Q. **INDUSTRIAL MAINTENANCE PRIMER:** Is a coating which is intended to be applied to a surface prior to the application of an industrial maintenance topcoat, to provide a firm bond between the substrate and subsequent coats.

R. **INDUSTRIAL MAINTENANCE TOPCOAT:** Is a high performance coating which is formulated for and applied to substrates in industrial, commercial, or institutional situations that are exposed to one or more of the following extreme environmental conditions:

1. Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
2. Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, chemical mixtures, or solutions;
3. Repeated exposure to temperatures in excess of 250°F;
4. Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial solvents, cleaners, or scouring agents; or
5. Exterior exposure of metal structures. Industrial Maintenance Coatings are not for residential use or for use in areas of industrial, commercial, or institutional facilities such as office space and meeting rooms.

S. **LACQUER:** Is a clear or pigmented coating formulated with nitrocellulose or synthetic resins to dry, by evaporation without chemical reaction and to provide a quick drying, solid protective film.

T. **LOW-SOLIDS STAINS AND WOOD PRESERVATIVES:** Stains and wood preservatives that contain one pound or less of solids per gallon of material and contain no exempt organic compounds.

U. **MAGNESITE CEMENT COATINGS:** Coatings formulated for and applied to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

V. **MASTIC TEXTURE COATINGS:** Coatings formulated to cover holes, minor cracks, and conceal surface irregularities, and which are applied in a thickness of at least 10 mils (dry single coat).

W. **METALLIC PIGMENTED COATINGS:** Coatings containing at least 0.4 pounds of elemental metallic pigment per gallon of coating as applied.

X. **MULTI-COLORED COATINGS:** Coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat.

Y. **NON-FLAT ARCHITECTURAL COATINGS:** Are coatings which register a gloss of 15 or greater on an 85 degree meter or five or greater on a 60 degree meter, and which are identified on the label as a gloss, semi-gloss, or eggshell enamel coating.

Z. **OPAQUE STAINS:** All stains that are not classified as semi-transparent stains.

AA. **OPAQUE WOOD PRESERVATIVES:** Wood preservatives not classified as clear or semi-transparent wood preservatives or as below ground wood preservatives or low solids wood preservatives.

AB. **PRE-TREATMENT WASH PRIMER:** A coating which contains at least one-half percent acid, by weight, applied directly to bare metal surfaces to provide necessary surface etching.

AC. **PRIMERS:** Coatings formulated and applied to substrates to provide a firm bond between the substrate and subsequent coats.

AD. **QUICK-DRY PRIMERS, SEALERS, AND UNDERCOATERS:** Are primers, sealers, and undercoaters which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats and which are dry to touch in one-half hour and can be recoated in two hours (ASTM D 1640).

AE. **QUICK-DRY ENAMELS:** Are non-flat coatings which comply with the following:

1. Shall be capable of being applied directly from the container by brush or roller under normal conditions, normal conditions being ambient temperatures between 60°F and 80°F;
2. When tested in accordance with ASTM D 1640 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 test method;
3. Shall have a 60°F dried film gloss of no less than 70.

AF. **REACTIVE ORGANIC COMPOUNDS (ROC):** Is any volatile compound containing at least one atom of carbon except those compounds identified in this Rule as Exempt Organic Compounds. This term and definition shall replace the following terms and definitions wherever they appear in the District's Rules and Regulations:

organic compound, organic gases, organic liquid, organic materials, organic vapor, volatile organic compounds and hydrocarbons.

AG. **ROOF COATINGS:** Coatings formulated for application to exterior roofs and for the primary purpose of preventing penetration of the substrate by water, or reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings which 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.

AH. **SANDING SEALERS:** Clear wood coatings formulated for and applied to bare wood for sanding and to seal the wood for subsequent application of varnish.

AI. **SEALERS:** Coatings formulated for and applied to a substrate to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

AJ. **SEMI-TRANSPARENT STAINS:** Coatings formulated to change the color of a surface but not conceal the surface.

AK. **SEMI-TRANSPARENT WOOD PRESERVATIVES:** Wood preservative stains formulated and used to protect exposed wood from decay or insect attack by the addition of a wood preservative chemical registered by the California Department of Food and Agriculture, which change the color of a surface but do not conceal the surface, including clear wood preservatives.

AL. **SHELLACS:** Clear or pigmented coatings formulated solely with the resinous secretions of the lac beetle, thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

AM. **SOLICIT:** To require for use or to specify, by written or oral contract.

AN. **SPECIALTY PRIMERS, SEALERS, AND UNDERCOATERS:** Primers, sealers and undercoaters used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; block efflorescence; condition chalky surfaces; or coat acoustical materials without affecting their acoustical abilities.

AO. **SWIMMING POOL COATINGS:** Coatings formulated and used to coat the interior of swimming pools and to resist swimming pool chemicals.

AP. **SWIMMING POOL REPAIR COATINGS:** Chlorinated rubber based coatings used for the repair and maintenance of swimming pools over existing chlorinated rubber based coatings.

AQ. **TRAFFIC COATINGS:** Coatings formulated for and applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots.

AR. **UNDERCOATERS:** Coatings formulated and applied to substrates to provide a smooth surface for subsequent coats.

AS. **VARNISHES:** Clear wood finishes formulated with various resins to dry by chemical reaction on exposure to air.

AT. **VOLATILE ORGANIC COMPOUNDS (VOC):** Shall have the same meaning as Reactive Organic Compounds (ROC) as defined in subsection 215.2 FF. of this Rule.

AU. **WATERPROOFING SEALERS:** Colorless coatings formulated and applied for the sole purpose of protecting porous substrates by preventing the penetration of water and which do not alter the surface appearance or texture.

215.3 REQUIREMENTS:

A. Except as provided in Subsections 215.3 B., 215.3 C., 215.3 E., and 215.3 F., no person shall, within the District; supply, sell, offer for sale, apply, or solicit the application of; or manufacture, blend, repackage for use within the District, any architectural coating which, at the time of sale or manufacture contains more than 250 grams of Volatile Organic Compounds (VOC) per liter of coating excluding water, exempt organic compounds and any colorant added to tint bases.

B. A person shall not sell, offer for sale or apply any non-flat architectural coating which, at the time of sale or manufacture, has a volatile organic compound content, excluding water and colorant added to tint bases, in excess of the following:
   1. 380 grams of volatile organic compounds per liter of coating if manufactured prior to September 1, 1986; or
   2. 250 grams of volatile organic compounds per liter of coating if manufactured on or after September 1, 1986.

C. Except as provided in Subsection 215.3 D., no person shall, within the District, sell, offer for sale, apply, supply, or solicit the application of; or manufacture, blend or repackage for use within the District, any architectural coating listed in the Table of Standards which, at the time of sale or manufacture, exceeds the limits in the Table (expressed as grams of VOC per liter of coating as applied, excluding water, exempt organic compounds, and any

colorant added to tint bases) after the corresponding date listed in the Table:

TABLE OF STANDARDS (grams of VOC per liter less water and less exempt organic compounds)			
Coating	**Effective Dates**		**Four Months After Date of Rule Adoption**
	9/1/84	**9/1/89**	
Below-Ground Wood Preservatives			350
Bond Breakers		750	350
Clear Wood Finishes:			
Sanding Sealer (Non-Lacquer)			350
Varnish		350	
Concrete Curing Compounds		350	
Dry Fog Coatings			400
Fire Retardant Coatings:			
Clear			650
Pigmented			350
Form Release Compounds			250
Graphics Arts (Sign) Coatings			500
Industrial Maintenance:			
Anti-Graffiti Coatings			340
High-Temperature Industrial:			
Maintenance Coatings			420 (Eff. 9/1/95)
Lacquer (Clear or Pigmented)		680	
Magnesite Cement Coatings			450
Mastic Texture Coatings			300
Metallic Pigmented Coatings			500
Multi-Color Coatings			420
Opaque Stains	400	350	
Opaques Wood Preservatives	400	350	
Pretreatment Wash Primer			675 (Eff. 9/1/97)
Primers, Sealers and Interceptors	400	350	
Roof Coatings		300	
Semi-Transparent Stains		350	
Semi-Transparent and Clear Wood Preservatives		350	
Shellac-Clear			730
Shellac-Pigmented			550
Specialty Flats		400	
Specialty Primers, Sealers and Interceptors		350	
Swimming Pool Coatings			340
Swimming Pool Repair and Maintenance Coatings			650 (Effective 9/1/97)
Traffic Coatings		250	
Waterproofing Sealers		400	

TABLE OF STANDARDS (grams of VOC per liter of material)			
Coating	**Effective**		**Four Months After Date of Rule Adoption**
	9/1/84	**9/1/89**	
Low-Solids Stains and Wood Preservatives	120		

D. Sale of a coating manufactured prior to the effective date of the corresponding standard in the Table of Standards, and not complying with that standard, shall not constitute a violation of Subsection 215.3 C. until three (3) years after the effective date of the standard, nor shall application of such a coating.

E. A person shall not sell, offer for sale or apply any architectural specialty coating (listed below) which, at the time of sale or manufacture, exceeds the following limits (expressed as grams of VOC per liter of coating as applied, excluding water) after the date listed below:

	Effective September 1, 1989
Lacquer	680
Industrial Maintenance Primers Topcoats	420
Quick Dry Enamels	400

F. All VOC-containing materials shall be stored in closed containers when not in use.

215.4 ADMINISTRATIVE REQUIREMENTS:

The following labelling requirements shall apply to the extent not preempted by federal law.

A. Each container of any coating subject to this rule shall display the date of manufacture of the contents 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 within four (4) months from the date of adoption of this rule or before such code is first used for such coatings within this District.

B. 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 architectural 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.

C. Each container of any coating subject to this rule and manufactured ONE YEAR AFTER THE ADOPTION DATE OF THIS RULE, shall display the maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer. The VOC content shall be displayed as grams of Volatile Organic Compound (VOC) per liter of coating (less water and less exempt organic compounds, and excluding any colorant added to tint bases). VOC content displayed may be calculated using product formulation data, or may be determined using the test method in Section 215.6 A.

D. Each container of Industrial Maintenance Primer and Industrial Maintenance Topcoat subject to this rule and manufactured ONE YEAR AFTER THE DATE OF ADOPTION OF THIS RULE, shall include the statement "Not for Residential Use" or "Not for Residential Use in California" prominantly displayed on all labels of all industrial maintenance coatings.

215.5 EXEMPTIONS:

A. The requirements of this rule shall not apply to:
   1. Architectural coatings manufactured in the District for use outside of the District or for shipment to other manufacturers for repackaging.
   2. Architectural coatings supplied in containers having capacities of one liter or less.
   3. Architectural coatings sold in non-refillable aerosol containers having capacities of one liter or less.
   4. Emulsion-type bituminous pavement sealers.

215.6 TEST METHOD:

A. Volatile Organic Compounds: Measurement of volatile organic compounds in architectural coatings shall be conducted and reported in accordance with EPA Method 24 (40 CFR 60, Appendix A). Measurement of volatile

organic compounds from exempt organic compounds also shall be conducted and reported in accordance with CARB Method 432.

B. Acid Content: Measurement of acid content of pretreatment wash primers shall be done in accordance with ASTM Method D 1613-85 (modified).

C. Metal Content: Measurement of metallic content of metallic pigmented coatings shall be done using the South Coast AQMD Method 311-91, "Analysis of Percent Metal in Metallic Coatings by Spectrographic Method" in SCAQMD's "Laboratory Method of Analysis for Enforcement Samples."

215.7 VIOLATIONS:

Failure to comply with any provision of this rule shall constitute a violation of this rule.

RULE 224 - CUTBACK AND EMULSIFIED ASPHALT PAVING MATERIALS

Adopted 9-16-91, Amended 9-27-94, Revised 6/6/94

224.1 GENERAL

A. **APPLICABILITY:** A person shall not discharge to the atmosphere volatile organic compounds (VOC's) caused by the use or manufacture, mixing, storage and application of Cutback or Emulsified asphalt for paving, road construction or road maintenance.

B. **EXEMPTIONS:** The provisions of Rule 224.3 shall not apply to:
   a. The use of cutback asphalt or emulsified asphalt in the manufacturing of paving materials where such materials are for immediate shipment and eventual use outside of the County of El Dorado, State of California, and where such area is designated as attainment for the State and Federal Ozone Standard.

224.2 DEFINITIONS

A. **ASPHALT -** A dark brown to black cementitious material (solid, semisolid, or liquid in consistency) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining.

B. **CUTBACK ASPHALT** - "Cutback asphalt" means asphalt cement that has been liquefied by blending with petroleum solvents (diluents). Upon exposure to atmospheric conditions, the diluents evaporate, leaving the asphalt cement to perform its function. Paving grade asphalt liquified with petroleum distillate and conforming to specifications of the American Society for Testing and Materials (ASTM) as follows:
   - Rapid Cure Type: ASTM D2028-76 (1986)
   - Medium Cure Type: ASTM D2027-76 (1986)
   - Slow Cure Type: ASTM D2026-72 (1985)

C. **DUST PALLIATIVE -** Means any light application of liquified asphalt (cutback or emulsified asphalt) for the express purpose of controlling loose dust.

D. **EMULSIFIED ASPHALT -** "Emulsified asphalt" means an emulsion of asphalt cement and water that contains a small amount of an emulsifying agent; it is a heterogeneous system containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion and minute globules of asphalt form the discontinuous phase.

E. **PAVING MATERIAL -** A mixture consisting mainly of an asphalt and aggregate.

F. **PAVING AND MAINTENANCE OPERATIONS -** All activities involved in the new construction and maintenance of roadways and parking areas.

G. **PENETRATING PRIME COAT -** "Penetrating prime coat" means an application of low-viscosity liquid asphalt to an absorbent surface. It is used to prepare an untreated base for an asphalt surface. The prime coat penetrates the base, plugs the voids, and hardens and helps bind the top to the overlying asphalt course. The penetrating prime coat also reduces the necessity of maintaining an untreated base course prior to placing the asphalt pavement. Prime coats do not include dust palliatives or tack coats.

H. **TACK COAT** - Means any application of asphalt to an existing surface to provide a bond between new surfacing and existing surface and to eliminate slippage places where the new and existing surfaces meet.

I. **VOLATILE ORGANIC COMPOUND (VOC) -** Means any volatile compound of carbon, excluding:
   1. methane,
   2. carbon monoxide,
   3. carbon dioxide,
   4. carbonic acid,
   5. ammonium carbonate,
   6. metallic carbides,
   7. metallic carbonates,
   8. 1,1,1/trichloroethane,

9. methylene chloride,
10. trichlorofluoromethane (CFC-11),
11. dichlorodifluoromethane (CFC-12),
12. chlorodifluoromethane (HCFC-22),
13. trifluoromethane (HFC-23),
14. 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113),
15. 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114),
16. chloropentafluoroethane (CFC-115),
17. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123),
18. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),
19. pentafluoroethane (HFC-125),
20. 1,1,2,2-tetrafluoroethane (HFC-134),
21. 1,1,1,2-tetrafluoroethane (HFC-134a),
22. 1,1-dichloro-1-fluoroethane (HCFC-141b),
23. 1-chloro-1,1-difluoroethane (HCFC-142b),
24. 1,1,1-trifluoroethane (HFC-143a),
25. 1,1-difluoroethane (HFC-152a),

and the following four classes of perfluorocarbon (PFC) compounds:

1. cyclic, branched, or linear, completely fluorinated alkanes,
2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
4. saturated perfluorocarbons containing sulfur with sulfur bonds only to carbon and fluorine.

224.3 STANDARDS

A. Cutback Asphalt: A person shall not manufacture for sale nor use for paving, road construction or road maintenance any:
   a. Rapid cure cutback asphalt.
   b. Medium cure cutback asphalt except as provided in Rule 224.1.B.
   c. Slow cure cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260^0C (500^0F) or lower as determined by ASTM Method D402-76 (1987).

B. Emulsified Asphalt: A person shall not manufacture for paving, road construction or road maintenance any emulsified asphalt containing organic compounds in excess of three percent by volume which evaporate at 260^0C (500^0F) or lower as determined by ASTM Method D244-91.

224.4 ADMINISTRATIVE

A. Test Methods:
   a. a. Analysis of Cutback Asphalt samples for VOC content shall be in accordance with ASTM Method D402-76 (1987).
   b. b. Analysis of Emulsified Asphalt samples for VOC content shall be in accordance with ASTM Method D244-91, in excess of three percent by volume.

B. Recordkeeping: Any person who manufactures cutback asphalts and or emulsified asphalts shall maintain records showing the types and amounts of these products produced and shipped, including the destinations of these products. Test method results should also be recorded.

   Any person who sells, offers for sale, uses or applies for paving any asphalt material subject to this rule shall maintain a record of the amount received, sold and/or used and a current list of all asphalt materials in use and Material Safety Data Sheets (MSDS) or manufacturer specifications for each asphalt material containing sufficient information to readily determine compliance with Subsections 224.3.A and 224.3.B of this rule, as applicable.

   These records shall be maintained daily and kept on site for at least three years and made available to the District upon verbal or written request.

10/27/83

Rule ~~225~~227 Existing Sources. In any case where Regulation I imposes standards different than the standards applicable to an existing source of emission (on day before adoption of new Regulation 1974), and the source of emissions was in compliance, under variance, or authority to construct, with the less restrictive standards applicable on such date, then the source shall remain in compliance with such Rule, until modified or until July 1, 1984, whichever occurs first. In no event is any modification to cause an increase in emissions over that being emitted prior to such modification. (See Attachment "A" for 2974 Regulation).

10/27/83

Rule ~~226~~ 228 Compliance Tests. Except as otherwise provided in these Rules and Regulations, performance tests undertaken to determine compliance of sources with Regulation II shall comply with the provisions of CFR 40, Part 60, Appendix A except that Method 5 shall be modified to include the impinger train.

RULE 229 - INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS

AMENDED: January 23, 2001

229.1 GENERAL

A. **PURPOSE:** To provide a control measure to limit emissions of NOx from industrial, institutional, and commercial boilers, steam generators and process heaters in conformance with BARCT determinations approved by the California Air Resources Board to meet the requirements of the California Clean Air Act.

B. **APPLICABILITY:** This rule applies to boilers, steam generators, and process heaters with rated heat inputs of greater than or equal to 5 million BTU per hour, used in all industrial, institutional, and commercial operations.

C. **EXEMPTION, NONGASEOUS FUELS:** Units subject to the requirements of Section 229.3 A. of this rule which normally burn only gas shall comply with a 150 ppmv, or 0.215 pound per million BTU of heat input, NOx emission when burning nongaseous fuel, if gas is unavailable for purchase. This exemption is limited to not more than 168 hours of operation per calendar year, excluding equipment and emission testing time not exceeding 48 hours per calendar year.

D. **EXEMPTION, ELECTRIC UTILITY BOILERS:** The provisions of this rule does not apply to boilers used by electric utilities to generate electricity.

E. **EXEMPTION: WASTE HEAT RECOVERY BOILERS:** The provisions of this rule do not apply to waste heat recovery boilers that are used to recover sensible heat from the exhaust of combustion turbines.

F. **EXEMPTION, DRYERS:** The provisions of this rule do not apply to dryers in which the material being dried is in direct contact with the products of combustion.

G. **EXEMPTION, CEMENT AND LIME KILNS, GLASS MELTING FURNACES, AND SMELTERS:** The provisions of this rule do not apply to cement and lime kilns, glass melting furnaces and smelters.

H. **EXEMPTION, BIOMASS BOILERS:** The provisions of this rule do not apply to boilers subject to Rule 232, Biomass Boilers.

229.2 DEFINITIONS

A. **ANNUAL HEAT INPUT:** The total heat input of fuels burned by a unit in a calendar year, as determined from the HHV and cumulative annual usage of each fuel.

B. **BARCT:** "Best Available Retrofit Control Technology" as defined in section 40406 of the California Health and Safety Code as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source".

C. **BOILER OR STEAM GENERATOR:** Any combustion equipment fired with any fuel and used to produce steam that is not used exclusively to produce electricity for sale. This definition does not include any waste heat recovery boiler that is used to recover sensible heat from the exhaust of a combustion turbine.

D. **BRITISH THERMAL UNIT (BTU):** The amount of heat required to raise the temperature of one pound of water from 59^{o}F to 60^{o}F at one atmosphere.

E. **GAS:** Any fuel which is a gas at standard conditions

F. **HEAT INPUT:** The chemical heat released due to fuel combustion in a unit, using the higher heating value of the fuel. This does not include the sensible heat of incoming combustion air.

G. **HIGHER HEATING VALUE (HHV):** 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 their standard states at standard conditions. HHV shall be determined by one of the following test methods:

1. ASTM D 2015-85 for solid fuels; or
2. ASTM D 240-87 or ASTM D 2382-82 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.

H. **NOx EMISSIONS (NOx):** The sum of nitric oxides and nitrogen dioxide in the flue gas.

I. **NONGASEOUS FUEL:** Any fuel which is not a gas at standard conditions.

J. **PARTS PER MILLION (BY VOLUME) (ppmv):** The ratio of the number of gas molecules of a given species, or group, to the number of millions of total gas molecules.

K. **PROCESS HEATER:** Any combustion equipment fired with any fuel, and which transfers heat from combustion gases to water or process streams. This definition does not include any dryers in which the material being dried is in direct contact with the products of combustion, cement or lime kilns, glass melting furnaces, or smelters.

L. **RATED HEAT INPUT:** The heat input capacity, in million BTU per hour, specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the maximum heat input shall be considered as the rated heat input.

M. **STANDARD CONDITIONS:** A gas temperature of 68oF and one atmosphere and a gas pressure of 14.7 pounds per square inch absolute.

N. **THERM:** One hundred thousand (100,000) BTU.

O. **THREE PREVIOUS CALENDAR YEARS:** The three consecutive years immediately preceding the year in which final compliance is required by this rule, or the three consecutive years immediately preceding each calendar year of compliance thereafter.

P. **UNIT:** Any boiler, steam generator or process heater as defined in Sections 229.2 C. and 229.2 K. of this rule.

The above conditions are referred to as the CO or smoke-spot thresholds, or as the minimum excess oxygen levels. 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 manufacturer, burner adjustments can probably be made to improve fuel and air mix, thereby allowing operations with less air.

229.3 STANDARDS

A. **ANNUAL HEAT INPUTS ≥ 90,000 THERMS:** For units with rated heat inputs of greater than or equal to 5 million BTU per hour and annual heat inputs of greater than or equal to 90,000 therms for any of the three previous calendar years, NOx emissions shall not exceed the following levels:

1. 30 parts per million by volume (ppmv), or 0.036 pound per million BTU of heat input when operated on gas; or
2. 40 parts per million by volume (ppmv), or 0.052 pound per million BTU of heat input, when operated on nongaseous fuel; or
3. the heat-input weighted average of the limits specified in 229.3 A.1. and 229.3 A.2., above, when operated on combinations of gas and nongaseous fuels.

Emissions from units subject to this Section shall not exceed a carbon monoxide concentration of 400 parts per million by volume (ppmv).

B. **ANNUAL HEAT INPUTS < 90,000 THERMS:** Units with rated heat inputs of greater than or equal to 5 million BTU per hour and annual heat inputs of less than 90,000 therms for each of the three previous calendar years or units with rated heat inputs of greater than or equal to 5 million BTU per hour and not subject to the provisions of Section 229.3 A., shall:

1. Be operated in a manner that maintains stack-gas oxygen concentrations at less than or equal to 3.00 percent by volume on a dry basis; or
2. Be operated with a stack-gas oxygen trim system set at 3.00 percent by volume oxygen. The tolerance of this setting shall be plus or minus (") five percent (i.e. 2.85 to 3.15 per cent by volume oxygen); or
3. Be tuned at least once per year by a technician that is qualified, to the satisfaction of the Air Pollution Control Officer, to perform a tune-up in accordance with Section 229.6 of this rule; or
4. Be operated in compliance with the applicable emission levels specified in Section 229.3 A. of this rule.

C. **EQUIPMENT REQUIREMENTS**

1. Owners or operators of units which simultaneously fire combinations of different fuels, and are subject to the requirements of Section 229.3 A., shall install non-resettable totalizing mass flow rate meters in each fuel line. Alternatively, non-resettable totalizing volumetric flow rate meters may be installed in conjunction with temperature and pressure meters in each fuel line.
2. Owners or operators of units which employ flue-gas NOx reducing technology and subject to the requirements of Section 229.3 A. of this rule, shall install meters, as applicable, to allow instantaneous monitoring of the operational characteristics of the NOx reduction equipment.

229.4 ADMINISTRATIVE REQUIREMENTS

A. **COMPLIANCE SCHEDULE:** The owner or operator of units subject to this rule shall fulfill the following increments of progress:

1. Submit, by September 27, 1996, a plan containing the following:
   a. A list of all units with their rated heat inputs and anticipated annual heat inputs.
   b. For owners or operators of units subject to section 229.3 A., for each unit listed, the selected method of achieving the applicable standard or standards of Section 229.3 A.
   c. For owners or operators of units subject to Section 229.3 B., for each unit listed, a selection of one of the four options specified in Section 229.3 B. to achieve compliance with this rule.
2. All owners or operators subject to the provisions of this rule shall submit an application for Authority to Construct for any modifications required to achieve compliance with the requirements of this rule no later than September 27, 1996.
3. By September 27, 1998, demonstrate final compliance with all applicable standards and requirements of this rule.

B. **COMPLIANCE DETERMINATION:**

1. An owner or operator of any unit(s) shall have the option of complying with either the pounds-per-million-BTU emission rates or the parts-per-million-by-volume emission limits specified in Section 229.3 A.
2. All emission determinations shall be made in the as-found operating condition, except that emission determinations shall include at a minimum at least one source test conducted at the maximum firing rate allowed by the District permit, and no compliance determination shall be established within two hours after a continuous period in which fuel flow to the unit is zero, or shut off, for thirty minutes or longer.
3. All ppmv emission limits specified in Sections 229.1 C. and 229.3 A. 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:

4. All pounds-per-million-BTU emission rates shall be calculated as pounds of nitrogen dioxide (NO2) per million BTU of heat input.
5. All emission concentrations and emission rates shall be based on 15-consecutive-minute averages. These averages shall be calculated from no less than five data sets, recorded from samplings on intervals of no greater than three minutes.

6. All units covered under Sections 229.3 A. and 229.3 B. shall conduct source tests to demonstrate initial compliance with the requirements of these Sections. Additional source testing shall be required at least once every 12 month period to ensure compliance with the standards set forth in Sections 229.3 A. and 229.3 B. of this rule. Units covered under Section 229.3 B.3. shall be tuned not less than once every 12 months.
7. A violation of the plan under Section 229.4 A.1. shall constitute a violation of this rule.
8. The cumulative annual usage of each fuel shall be monitored from utility service meters, purchase, or tank fill records, or by any other acceptable methods approved by the Air Pollution Control Officer.

C. **TEST REPORTS:** The owners or operators of units subject to Section 229.3 of this rule shall submit compliance test reports on each unit for each fuel burned, including any fuels which may be burned in accordance with Section 229.1 C., not less than once every twelve months; except that tune-up verification reports shall be submitted not less than once every twelve months for each unit complying with Section 229.3 B.3. for each fuel burned. Test reports shall include the operational characteristics of all flue-gas NOx reduction equipment. The first test or tune-up report, for each unit subject to Section 229.3 of this rule shall be submitted by September 27, 1998.

229.5 MONITORING AND RECORDS

A. **FUEL USAGE AND OPERATING HOURS:** The owners or operators of units subject to Section 229.3 of this rule shall monitor and record for each unit the HHV and cumulative annual usage of each fuel. The owners and operators of units exempt from Section 229.3 A. in accordance with Section 229.1 C. shall monitor and record for each unit the cumulative hours of operation on each nongaseous fuel. The records shall be updated weekly and made available to the District upon request. Historical annual data for the three previous calendar years shall be kept and made available by the owners and operators.

B. **TEST METHODS:**

1. Compliance with NOx emission requirements and the stack-gas carbon monoxide and oxygen requirements of Section 229.3 shall be determined using the following test methods:
   a. Oxides of Nitrogen - ARB Method 100.
   b. Carbon Monoxide - ARB Method 100.
   c. Stack-Gas Oxygen - ARB Method 100.
   d. NOx Emission Rate (Heat Input Basis) - EPA Method 19.
2. Integrated sampling methods for oxides of nitrogen, stack-gas oxygen, and stack-gas carbon monoxide, as approved by the Air Pollution Control Officer, California Air Resources Board and the United States Environmental Protection Agency, may be acceptable for determination of compliance with NOx emission concentration or rate limits.

229.6 TUNING PROCEDURE

A. **GENERAL:** Nothing in this tuning procedure1 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.

B. **PROCEDURES:**

1. Operate the unit at the firing rate most typical of normal operation. If the unit experiences significant load variations during normal operations, operate the unit at its average firing rate.
2. At the firing rate established in Section 229.6 B.1., record stack-gas temperatures, oxygen concentration, and CO concentration (for gaseous fuels) or smoke-spot number2 (for liquid fuels), and observe flame conditions after unit operation stabilizes at the selected firing rate. If the excess oxygen in the stack-gas is at the lower range of typical minimum values3, and if 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 until the stack-gas oxygen levels increase by one or two percent over the level measured in Section 229.6 B.2. As in Section 229.6 B.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 unit operation stabilizes.
4. Decrease combustion air flow until the stack-gas oxygen is at the level measured in Section 229.6 B.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 the following limits is reached:
   a. Unacceptable flame conditions - such as flame impingement on furnace walls or burner parts, excessive flame carryover, or flame instability;
   b. Stack-gas CO concentrations greater than 400 ppm;
   c. Smoking at stack;
   d. Equipment-related limitations - such as low windbox/furnace pressure differential, built-in air-flow limits, etc.
6. Develop an O2/CO curve (for gaseous fuels) or O2/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 Section 229.6 B.6., find the stack-gas oxygen levels where the CO emissions or smoke-spot number equal the following values:

	Fuel	Measurement	Value
	Gaseous	CO Emissions	400 PPM
	#1 and #2 Oils	Smoke Spot Number	Number 1
	#4 Oil	Smoke Spot Number	Number 2
	#5 Oil	Smoke Spot Number	Number 3
	Other Oils	Smoke Spot Number	Number 4

The above conditions are referred to as the CO or smoke-spot thresholds, or as the minimum excess oxygen levels. 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 manufacturer, burner adjustments can probably be made to improve fuel and air mix, thereby allowing operations with less air.

8. Add 0.5 to 2.0 percent to the minimum excess oxygen level found in Section 229.6 B.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 Sections 229.6 B.1. - 229.6 B.8. for the 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 the best performance over the range of the firing rates. If one firing rate predominates, the setting should optimize the conditions at the rate.
10. Verify that the new settings can accommodate the sudden load changes that may occur in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack.

If any of the conditions in Section 229.6 B.5. result, reset the combustion controls to provide a slightly higher level of excess oxygen at the affected firing rates. Next, verify these new settings in a similar fashion. Then make sure that the final control settings are recorded at steady-state operating conditions for future reference.

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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. THE BACHARACH METHOD IS INCLUDED IN A TUNE-UP KIT THAT CAN BE PURCHASED FROM THE BACHARACH COMPANY.
3. TYPICAL MINIMUM OXYGEN LEVELS FOR UNITS AT HIGH FIRING RATES ARE:

A. FOR NATURAL GAS: 0.5 - 3%
B. FOR LIQUID FUELS: 2 - 4%.

Figure 1

Oxygen/CO Characteristic Curve

Figure 2

Oxygen/Smoke Characteristic Curve

SOURCE: KVB INC.

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 230 AUTOMOTIVE REFINISHING OPERATIONS

ADOPTED: SEPTEMBER 27, 1994

230.1 GENERAL

A. **PURPOSE:** To limit the emission of volatile organic compounds from finishing or refinishing of Group I and Group II Vehicles and Equipment as defined in this rule.
B. **EXEMPTION, TOUCH-UP:** The provisions of this rule shall not apply to touch-up operations.
C. **EXEMPTION, GRAPHIC DESIGN APPLICATIONS:** The provisions of this rule shall not apply to graphic design applications.
D. **EXEMPTION, MILITARY VEHICLES AND GROUND SUPPORT EQUIPMENT:** The provisions of this rule shall not apply to the coating of military vehicles and ground support equipment.
E. **EXEMPTION, RADIATORS AND ENGINE COMPONENTS:** The provisions of this rule shall not apply to the coating of radiators and engine parts.
F. **EXEMPTION, AEROSOL PAINT PRODUCTS:** The provisions of this rule shall not apply to the application of aerosol paint products.
G. **LIMITED EXEMPTION, SELF-CONTAINED COATING APPLICATION:** The provisions of Section 230.3 B., shall not apply to the application of high viscosity or thixotropic coatings with application equipment that is supplied with and is an integral part of the coating container.

230.2 DEFINITIONS

A. **ANTIGLARE/SAFETY COATING:** A coating which minimizes light reflection for safety purposes.
B. **CAMOUFLAGE COATING:** A coating applied on motor vehicles to conceal such vehicles from detection.
C. **CATALYST:** A substance whose presence initiates the reaction between chemical compounds.
D. **COLOR MATCH:** The ability of a repair coating to blend into an existing coating so that color difference is not visible.
E. **ELECTROSTATIC APPLICATION:** The application of charged atomized paint droplets which are deposited by electrostatic attraction.
F. **EXEMPT COMPOUNDS:** The following compounds are exempt from the definition of VOC in Section 230.2 HH.:
    1. Methane
    2. Carbon Dioxide
    3. Carbon Monoxide
    4. Carbonic Acid
    5. Metallic Carbides or Carbonates
    6. Ammonium Carbonate
    7. l,l,l-Trichloroethane
    8. Methylene Chloride
    9. Dichlorotrifluoroethane (HCFC-123)
    10. 2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
    11. Trichlorofluoromethane (CFC-11)
    12. Dichlorodifluoromethane (CFC-12)
    13. Trichlorotrifluoroethane (CFC-113)
    14. Dichlorotetrafluoroethane (CFC-114)
    15. Chloropentafluoroethane (CFC-115)
    16. Pentafluoroethane (HFC-125)
    17. 1,1,2,2-Tetrafluoroethane (HFC-134)
    18. Tetrafluoroethane (HFC-134a)
    19. Dichlorofluoroethane (HCFC-141b)
    20. Chlorodifluoroethane (HCFC-142b)
    21. 1,1,1-Trifluoroethane (HFC-143a)
    22. Chlorodifluoromethane (HCFC-22)
    23. Trifluoromethane (HFC-23)
    24. 1,1-Difluoroethane (HFC-152a)
    25. The following four classes of perfluorocarbon 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.
        d. Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine. Perfluorocarbon compounds shall be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific compounds and the amounts present in the product or process and provides a validated test method which can be used to quantify identified compounds.
G. **FINISHING:** The coating of incomplete vehicles, their parts and components, or mobile equipment for which the original coating was not applied from an Original Equipment Manufacturing (OEM) plant coating assembly line.
H. **FINAL STAGE MANUFACTURE:** An incomplete vehicle chassis is delivered to a manufacturer for installation and paint of a truck body and/or components to form a completed vehicle.
I. **GRAMS OF VOC PER LITER OF COATING LESS WATER AND LESS EXEMPT SOLVENT:** The weight of VOC per combined

volume of VOC and coating solids as calculated by the following equation:

where:

G_{voc} *= Grams VOC per liter of coating less water and exempt compounds.*

W_s *= weight of volatile compounds in grams.*

W_w *= weight of water in grams.*

W_{es} *= weight of exempt compounds in grams*

$.V_m$ *= volume of material in liters.*

V_w *= volume of water in liters.*

V_{es} *= volume of exempt compounds (as defined in Section 230.2 F., of this rule) in liters.*

J. **GRAPHIC DESIGN APPLICATION:** The application of logos, letters, numbers and graphics to a painted surface, with or without the use of a template.

K. **GROUND SUPPORT:** Vehicles used in support of aircraft activities at airports.

L. **GROUP I VEHICLES:** Passenger cars, large/heavy duty truck cabs and chassis, light and medium duty trucks and vans, and motorcycles.

M. **GROUP II VEHICLES:** Public transit buses and mobile equipment.

N. **HIGH VOLUME, LOW PRESSURE (HVLP) SPRAY:** Equipment used to apply coatings by means of a gun which is designed to be operated and which is operated between 0.1 and 10 psig air atomized pressure measured dynamically at the center of the air cap and at the air horns.

O. **LACQUER:** A coating that dries primarily by solvent evaporation and is resoluble in its original solvent.

P. **LARGE/HEAVY DUTY TRUCKS:** Any truck having a manufacturer's gross vehicle weight rating of over 30,000 pounds.

Q. **LIGHT AND MEDIUM DUTY TRUCKS AND VANS:** Any truck or van having a manufacturer's gross vehicle weight rating of 30,000 pounds or less.

R. **METALLIC COATING TOPCOAT:** Any coating which contains more than 5 g/l (0.042 lb/gal) of metal particles, as applied, where such particles are visible in the dried film.

S. **MOBIL EQUIPMENT:** Any equipment which may be drawn or is capable of being driven on rails or on a roadway, including, but not limited to, trains, railcars, truck bodies, truck trailers, camper shells, mobile cranes, bulldozers, street cleaners, golf carts and implements of husbandry.

T. **MULTI STAGE TOPCOAT SYSTEM:** A topcoat system composed of either a basecoat/clearcoat, a basecoat/midcoat/clearcoat, or a groundcoat/basecoat/midcoat/clearcoat.

The VOC content of a basecoat/clearcoat coating system shall be calculated according to the following formula:

The VOC content of a 3 Stage coating system shall be calculated according to the following formula:

The VOC content of a 4 Stage coating system shall be calculated according to the following formula:

Where:

VOC_{Total} *= The sum of the VOC content, as applied and used to determine compliance with Section 230.3 A.*

VOC_{gc} *= The VOC content, as applied, of a pigmented groundcoat or tinted primer sealer.*

VOC_{bc} *= The VOC content, as applied, of a pigmented basecoat.*

VOC_{mc} *= The VOC content, as applied, of a translucent midcoat.*

$2VOC_{cc}$ *= Two times the VOC content, as applied, of a transparent clearcoat.*

U. **PRECOAT**: Any coating which is applied to bare metal primarily to deactivate the metal surface prior to application of a subsequent water-base primer surfacer. Effective **June 1, 1995**, a precoat shall be a two component coating that dries by oxidation or chemical polymerization.

V. **PRETREATMENT WASH PRIMER:** Any coating which contains a minimum of 0.5 percent acid by weight, is necessary to provide surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.

W. **PRIMER:** Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat. Primer surfacer and primer sealer shall be considered a primer when applied to Group II vehicles.

X. **PRIMER SEALER:** Any coating applied for the purpose of sealing the underlying metal or coating system prior to the application of a topcoat.

Y. **PRIMER SURFACER:** Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.

Z. **REDUCER:** The solvent used to thin enamel.

AA. **REFINISHING:** Any coating of vehicles, their parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original coating applied at an Original Equipment Manufacturing (OEM) plant coating assembly line.

AB. **SPECIALTY COATINGS:** Unique coatings and compliant coatings with additives which are necessary due to unusual job performance requirements. Said coatings include, but are not limited to, adhesion promoters, uniform finish blenders, elastomeric materials, gloss flatteners, bright metal trim repair, and anti-glare/safety coatings.

AC. **TEMPORARY PROTECTIVE COATING:** A coating applied for the purpose of protecting adjacent areas to that being painted from overspray. The temporary protective coating is removed after primer or topcoat applications.

AD. **TOPCOAT:** Any coating applied over a primer, primer system, or an original OEM finish for the purpose of protection or appearance. For the purposes of this rule, solid color and metallic topcoats are single stage applications, the VOC_{Total} of a multi stage topcoat system will determine compliance with VOC standards in Section 230.3 A.

AE. **TOUCH-UP COATING:** A coating applied by brush, air brush, or hand held, non-refillable aerosol cans to repair minor surface damage and imperfections less than four square feet.

AF. **TRANSFER EFFICIENCY:** The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

AG. **UTILITY BODY:** A special purpose service compartment or unit that will be bolted, welded, or affixed onto an existing cab and chassis. The compartment may serve as storage for equipment or parts.

AH. **VOLATILE ORGANIC COMPOUNDS (VOC):** Any chemical compound containing at least one atom of carbon except exempt compounds specified in Section 230.2 F.

230.3 STANDARDS

A. **LIMITS:** Any person who applies coatings to Group I or II vehicles, mobile equipment, their parts and components, shall comply with Sections 230.3 A.1., or 230.3 A.2., of this rule.

1. **Group I Vehicles:** A person shall not refinish Group I vehicles, their parts and components, using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt compounds (as defined Section 230.2 F., of this rule), unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an overall control efficiency (capture and control) of at least 85 percent and which has been approved in writing by the Air Pollution Control Officer.

2. **Group II Vehicles and Mobile Equipment:** A person shall not finish or refinish Group II vehicles and equipment or their parts and components where color match is not required, using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt compounds (as defined in Section 230.2 F., of this rule), unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an overall control efficiency (capture and control) of at least 85 percent and which has been approved in writing by the Air Pollution Control Officer.

B. **TRANSFER EFFICIENCY:** Effective **March 27, 1995**, for all coatings, a person shall not apply any coating to any Group I or II vehicles or

mobile equipment or their parts and components unless one of the following methods is used:

1. Electrostatic application equipment, operated in accordance with the manufacturer's recommendations;
2. High Volume Low Pressure (HVLP) spray equipment, operated in accordance with the manufacturer's recommendations;
3. Any other coating application method which has been demonstrated to have a transfer efficiency of 65% or greater according to the requirements of Section 230.5 C., Determination of Transfer Efficiency.

C. **SURFACE PREPARATION AND SOLVENT LOSS MINIMIZATION:** Any person using organic solvent for surface preparation and cleanup or mixing, using or disposing of coating or stripper containing organic solvent:

1. Shall use closed, nonabsorbent containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.
2. Shall store fresh or spent solvent, coating, catalyst, thinner, or reducer in closed containers when not in use.
3. Shall not use organic compounds for the cleanup of spray equipment including paint lines unless an enclosed system or other system that has been approved in writing for use by the Air Pollution Control Officer and submitted to and approved by ARB and U.S. EPA, is used for cleanup. The system must enclose spray guns, cups, nozzles, bowls and other parts during washing, rinsing and draining procedures. Equipment used shall minimize the evaporation of organic compounds to the atmosphere.
4. Effective **June 1, 1995**, the VOC content of surface preparation solvent shall not exceed 72 g/l (0.6 lb/gal). The VOC content of surface preparation solvent used to clean plastic parts shall not exceed 780 g/l (6.5 lbs/gal).

D. **SMALL PRODUCTION/UTILITY BODIES:** A person shall not coat utility bodies where the coating must match that of the vehicles upon which there will be mounted using any coating with a VOC content in excess of the standards set forth in Section 230.3 A.1., provided production is less than 20 vehicles per day. Daily records shall be maintained on the number of utility bodies coated each day and such records shall be retained for the previous five (5) year period and be available at the time of inspection.

E. **SPECIALTY COATINGS:** A person shall not use any specialty coating with a VOC content in excess of 840 g/l (7.0 pounds per gallon), excluding water and exempt compounds. Use of all specialty coatings except antiglare/safety coatings shall not exceed 5.0 percent of all coatings applied, on a daily basis. The application of topcoats with a specialty coating used as an additive shall be subject to the topcoat limits in Sections 230.3 A.1., and 230.3 A.2., of this rule.

F. **TEMPORARY PROTECTIVE COATING:** A person shall not use any temporary protective coating with a VOC content in excess of 60 g/l (0.5 lbs/gal), excluding water.

G. **PRECOAT LIMITATION:** A person shall not use precoat in excess of 25%, by volume, of the amount of primer surfacer used.

H. **HVLP MARKING:** Effective **March 27, 1995**, a person shall not sell or offer for sale for use within the District any HVLP gun without a permanent marking denoting the maximum inlet air pressure in psig at which the gun will operate within the parameters specified in Section 230.2 N.

230.4 ADMINISTRATIVE REQUIREMENTS

A. **PROHIBITION OF SPECIFICATION:** No person shall solicit or require for use or specify the application of a coating on a Group I or II vehicle, mobile equipment, or part or component thereof if such use or application results in a violation of the provisions of this rule. The prohibition of this Section will 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 motor vehicle, mobile equipment, or part or component at any physical location within the District.

B. **PROHIBITION OF SALE:** A person shall not offer for sale or sell within the District any coating if such product is prohibited by any of the provisions of this rule. The prohibition of this section shall apply to the sale of any coating which will be applied at any physical location within the jurisdiction of the local air pollution control agencies. This requirement shall not apply to the application of coatings where emissions to the atmosphere are controlled to an equivalent level of this rule by air pollution abatement equipment with an overall efficiency (capture and control) of at least 85 percent and which has been approved in writing by the Air Pollution Control Officer.

C. **COMPLIANCE STATEMENT REQUIREMENT:** The manufacturer of coatings subject to this rule shall include a designation of VOC (as defined Section 230.2 HH., of this rule) as supplied, including coating components, expressed in grams per liter (or pounds per gallon), excluding water and exempt compounds, on data sheets.

230.5 MONITORING AND RECORDS

A. **ANALYSIS OF SAMPLES:** Samples of volatile organic compounds as specified in Sections 230.3 A.1., and 230.3 A.2., of this rule shall be analyzed as prescribed by EPA Reference Method 24.

B. **DETERMINATION OF EMISSIONS:** Emissions of volatile organic compounds as specified in Section 230.3 A.1., and 230.3 A.2., of this rule shall be measured as prescribed by EPA Reference Method 25.

C. **DETERMINATION OF TRANSFER EFFICIENCY:** Transfer efficiency as required by Section 230.3 B., of this rule shall be determined in accordance with the South Coast Air Quality Management District (SCAQMD) test method for determining transfer efficiency entitled, "Spray Equipment Transfer Efficiency (TE) Test Procedure for Equipment User, May 24, 1989," or other equivalent method which has been approved in writing by the Air Pollution Control Officer and submitted to and approved by U.S. EPA.

D. **DETERMINATION OF CAPTURE EFFICIENCY:** Capture efficiency as required by Section 230.3 A.1., and 230.3 A.2., of this rule shall be determined by and reported in accordance with 40 CFR 52.741, Appendix B, "VOM Measurement Techniques for Capture Efficiency".

E. **DETERMINATION OF METALLIC PARTICLES IN METALLIC COATING TOPCOAT:** Metallic particles in metallic coating topcoat as defined, in Section 230.2 R., of this rule shall be determined by the South Coast Air Quality Management District (SCAQMD) Method 311 Analysis of Percent Metal in Metallic Coatings by Spectrographic Method contained in the SCAQMD "Laboratory Method of Analysis for Enforcement Samples" manual.

F. **DETERMINATION OF ACID CONCENTRATION IN PRETREATMENT WASH PRIMER:** Acid concentration in pretreatment wash primer as defined in Section 230.2 V., of this rule shall be determined by ASTM Test Method D-1613-85 (modified).

G. **COATING RECORDS:** Any person subject to Sections 230.3 A., and 230.3 C., of this rule shall comply with the following requirements:

1. The person shall maintain and have available during an inspection, a current list of coatings in use which provides all of the coating data necessary to evaluate compliance, including the following information, as applicable:
    a. coating, catalyst and reducer used.

b. mix ratio of components used.
c. VOC content of coating as applied.

2. The person shall maintain records on a daily basis including the following information:
   a. coating and mix ratio of components in the coating used.
   b. quantity of each coating applied.
   c. type and amount of solvent used for cleanup and surface preparation.
3. The person shall maintain and have available during an inspection, a list showing the category of each of the coatings used and the type of vehicle or equipment to which each coating was applied.
4. Such records shall be retained and available for inspection by the District for the previous five (5) year period.

H. **PRECOAT LIMITATION RECORDS:** Any person using precoat shall retain purchase invoices to verify compliance with Section 230.3 G. Such records shall be retained for the pervious five (5) year period and made available for inspection upon request.

RULE 231 GRAPHIC ARTS OPERATIONS

ADOPTION DATE: SEPTEMBER 27, 1994

231.1 GENERAL

A. **PURPOSE:** To limit the emission of volatile organic compounds from graphic arts operations.
B. **EXEMPTIONS:**
   1. This rule, with the exception of Section 231.5 A., shall not apply to any graphic arts facility which emits less than 660 pounds of volatile organic compounds per calendar month from all graphic arts operations, including surface preparation and cleanup solvents, and excluding graphic arts operations addressed in Section 231.1 B.2. Records required by Section 231.5 A., shall be maintained by all facilities to demonstrate their exemption status.
   2. This rule, with the exception of Section 231.5 A., shall not apply to graphic arts operations used exclusively for research, laboratory analysis or determination of product quality and commercial acceptance, such as proof presses or other proofing systems, provided that total VOC emissions from all such equipment do not exceed 300 pounds per calendar month per facility. Records required by Section 231.5 A., shall be maintained by these facilities to demonstrate their exemption status.

231.2 DEFINITIONS

A. **APPROVED EMISSION CONTROL SYSTEM REQUIREMENTS:** A system for reducing emissions of volatile organic compounds, approved by the Air Pollution Control Officer
B. **COATING:** The application of a uniform layer of material across the entire width of a substrate. Those machines which have both coating and printing units are considered to be performing a graphic arts operation.
C. **CONTROL DEVICE:** Equipment such as an incinerator or adsorber used to prevent air pollutants from reaching the ambient air.
D. **CONVERTING OPERATION:** Coating, waxing, laminating, extrusion coating and printing, for fabrication of base materials. The base materials are then used to produce wraps, bags, and other preformed packages.
E. **DOCTOR BLADE:** A steel blade used to scrape excess ink from a printing plate.
F. **DRYING OVEN:** An oven used to hasten the process of drying printed or coated material.
G. **FLEXIBLE PACKAGING INDUSTRY:** Establishments that convert materials consisting of light gauge papers, plastic films, cellulosic films such as cellophane, thin gauge metal sheets such as aluminum foil or steel foil, and combinations thereof into a variety of product packages.
H. **FLEXOGRAPHIC PRINTING:** A printing operation in which words, designs, or pictures are applied to a substrate by means of a roll printing technique in which a raised pattern is applied to an image carrier made of rubber or other elastomeric materials mounted on a steel matting cylinder. The image is then printed directly from the raised pattern to the substrate.
I. **FOUNTAIN SOLUTION:** The solution applied to the image plate to maintain the hydrophilic properties of the nonimage areas and to keep the nonimage area free from ink.
J. **GRAPHIC ARTS OPERATIONS:** Publication gravure, packaging gravure, web-feed wallpaper screen printing, specialty gravure, flexographic printing operations, lithographic printing operations, letterpress printing operations, or any coating or laminating operation that manufactures flexible packaging material for the packaging industry. Coating operations which are performed by a machine having only coating units and no printing units are not graphic arts operations.
K. **GRAVURE PRINTING:** An intaglio printing operation in which the ink is transferred from minute etched wells which comprise the image on a plate to the substrate which is supported by an impression roller, with excess ink removed from the plate by a doctor blade.
L. **INTAGLIO PRINTING:** A printing operation done from a plate in which the image is etched or engraved into

the surface.

M. **LAMINATING OPERATIONS:** A process of composing two or more layers of material to form a single multiple-layer sheet by using adhesive as the bonding agent.

N. **LETTERPRESS PRINTING:** A printing operation in which the image area is raised relative to the nonimage area and the ink is transferred to the paper directly from the image surface.

O. **LINE:** The minimum equipment which is required for the application and/or curing of inks and/or coatings on a substrate, including the ink and/or coating applicators and heating oven(s) and associated ink and coating mixing equipment.

P. **LITHOGRAPHIC PRINTING:** A printing operation in which the image and nonimage areas exist in the same plane. The nonimage area is treated chemically so that only the image areas will be printed onto the substrate.

Q. **NONHEATSET INK:** An ink which dries primarily by oxidation and absorption into the substrate without the use of heat from dryers or ovens, used primarily in lithographic and letterpress printing.

R. **NONPOROUS SUBSTRATE:** Any substrate other than paper or paperboard, including but not limited to foil, polyethylene, polypropylene, cellophane, metalized polyester, nylon and polyethylene terephthalate (mylar), but not including wood, metal, or ceramic materials.

S. **OFFSET PRINTING:** A lithographic printing operation in which the image area is transferred, or offset, to another surface, and then printed onto the substrate.

T. **PACKAGING GRAVURE PRINTING:** A gravure printing operation on paper, paperboard, foil, film or other substrates which are to be used to produce containers or packages.

U. **POROUS SUBSTRATE:** Paper or paperboard.

V. **PRODUCTION UNIT:** A ream of paper, consisting of 500 sheets of paper.

W. **PUBLICATION GRAVURE PRINTING:** A gravure printing operation on paper which is subsequently formed into books, magazines, catalogs, brochures, directories, newspaper supplements or other publication material.

X. **SCREEN PRINTING:** A printing operation in which the printing ink passes through a refined form of stencil to a web or fabric. The stencil openings determine the form and dimension of the imprint.

Y. **SPECIALTY GRAVURE PRINTING:** A gravure printing operation for production of wall and floor covering, decorated household paper products such as towels and tissues, cigarette filter tips, vinyl upholstery, gift wrap, and woodgrains.

Z. **VOLATILE ORGANIC COMPOUNDS (VOC):** Compounds which contain at least one atom of carbon, except for the following compounds considered exempt from the definition of VOC, whose presence shall be determined in accordance with Section 231.5 B.:

1. methane (CH_4)
2. carbon dioxide (CO_2)
3. carbon monoxide (CO)
4. carbonic acid ($(CO(OH)_2$)
5. metallic carbides (M-C) or carbonates ($M\text{-}CO_3$)
6. ammonium carbonate ($(NH_4)HCO_3(NH_4)CO_2NH_2$)
7. 1,1,1-trichloroethane (methyl chloroform)
8. methylene chloride (dichloromethane)
9. trichlorofluoromethane (CFC-11)
10. dichlorodifluoromethane (CFC-12)
11. chlorodifluoromethane (HCFC-22)
12. trifluoromethane (HFC-23)
13. 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113)
14. 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
15. chloropentafluoroethane (CFC-115)
16. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
17. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
18. pentafluoroethane (HFC-125)
19. 1,1,2,2-tetrafluoroethane (HFC-134)
20. 1,1,1,2-tetrafluoroethane (HFC-134a)
21. 1-dichloro-1-fluoroethane (HCFC-141b)
22. 1-chloro-1,1-difluoroethane (HCFC-142b)

23. 1,1,1-trifluoroethane (HFC-143a)
24. 1,1-difluoroethane (HFC-152a)
25. The following classes of perfluorocarbon 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.
    d. Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine. Perfluorocarbon compounds will be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present on the product or process and provides an EPA approved test method which can be used to quantify the specific compounds.

AA. **WEB:** A continuous sheet of substrate that is printed on web-fed printing presses.

AB. **WEB-FEED:** An automatic system on a printing press which supplies a web substrate to the printing unit.

231.3 STANDARDS

A. Any person operating equipment for packaging gravure printing, specialty gravure printing, wall-paper screen printing, flexographic printing, lithographic printing, letterpress printing, and any related coating or laminating operations on porous or nonporous substrates, including detergent packages, shall comply with one of the following requirements:
    1. Use only low-VOC inks, coatings, adhesives, and fountain solutions as specified in Section 231.3 B., of this rule, or
    2. Install and operate on the line, an approved emission control system pursuant to Section 231.3 C., with a control device efficiency of at least 95 percent on a mass basis and an emission collection efficiency of at least 70% on a mass basis, or

B. **LOW-V0C INK, COATING, ADHESIVE, AND FOUNTAIN SOLUTION REQUIREMENTS:** Any person choosing to comply with this rule through the use of low-VOC inks, coatings, adhesives, or fountain solutions shall comply with the following requirements:
    1. Use only inks, coatings, or adhesives, which contain, on an as-applied basis, 300 grams or less of VOC per liter of material (2.5 pounds per gallon), less water and compounds exempt from thedefinition of VOC. VOC content for inks, coatings, and adhesives shall be determined using the appropriate test method pursuant to Section 231.5 B., and the following equation:

$$(W_m - W_w - W_{ex}) / (V_m - V_w - V_{ex})$$

Where:
W_m = weight of all volatile compounds in grams or pounds
W_w = weight of water in grams or pounds
W_{ex} = weight of compounds exempt from the definition of VOC, in grams or pounds
V_m = volume of material in liters or gallons
V_w = volume of water in liters or gallons
V_{ex} = volume of compounds exempt from the definition of VOC, in liters or gallons

    2. Use only fountain solutions which contain, on an as-applied basis, 116 grams or less of VOC per liter of material. VOC content for fountain solutions, as well as makeup solvents and surface preparation and cleanup solvents, shall be determined using the appropriate test method pursuant to Section 231.5 B., and the following equation:

$$(W_m - W_w - W_{ex}) / (V_m)$$

Where:
W_m = weight of all volatile compounds in grams or pounds

W_w = *weight of water in grams or pounds*

W_{ex} = *weight of compounds exempt from the definition of VOC, in grams or pounds*

V_m = *volume of material in liters or gallons*

C. **APPROVED EMISSION CONTROL SYSTEM REQUIREMENTS:** A system for reducing emissions of volatile organic compounds, approved by the Air Pollution Control Officer, and which satisfies the following conditions:
   1. It includes a control device and collection system designed and operated to achieve the efficiencies specified in Section 231.3 A.2., at all times during normal operation of the line being controlled; and
   2. It includes a collection system which vents all drying oven exhaust to the control device.

D. **SURFACE PREPARATION AND CLEANUP SOLVENTS:** Any person using surface preparation and cleanup solvents for graphic arts operations shall comply with the following requirements:
   1. Do not use open containers for the storage or disposal of VOC containing cloth or paper. All Volatile Organic Compound (VOC) containing materials are required to be stored in closed containers.
   2. Do not store unused or waste volatile organic compounds in open containers. All Volatile Organic Compounds (VOC) containing materials are required to be stored in closed containers.

231.4 ADMINISTRATIVE REQUIREMENTS

A. **COMPLIANCE SCHEDULE, LITHOGRAPHIC (INCLUDING OFFSET) AND LETTERPRESS PRINTING OPERATIONS:** Any person using lithographic or letterpress printing operations shall be in compliance with the requirements of this rule by **MARCH 27, 1995.**

B. **OPERATION AND MAINTENANCE PLAN:** Any person using an approved emission control device pursuant to Section 231.3 C., as a means of complying with this rule, as provided in Section 231.3 A., must submit, with the application for Authority to Construct, pursuant to Rule 501, General Permit Requirements, an Operation and Maintenance Plan for the emission control device to the Air Pollution Control Officer for approval. Plans for emission control devices installed as of **SEPTEMBER 27, 1994**, if not previously submitted, must be submitted by **MARCH 27, 1995** and receive approval of the Air Pollution Control Officer. The Plan shall specify operation and maintenance procedures which will demonstrate continuous operation of the emission control device during periods of emissions-producing operations. The Plan shall also specify which records must be kept to document these operation and maintenance procedures. These records shall comply with the requirements of Sections 231.5 A.3., and 231.5 A.4. The Plan shall be implemented upon approval of the Air Pollution Control Officer.

C. **COMPLIANCE STATEMENT REQUIREMENT:** The manufacturer or distributor of all inks, coatings, adhesives, fountain solutions, makeup solvents, and surface preparation and cleanup solvents which are sold for use in graphic arts operations within the District shall include on product data sheets a designation of both the as-supplied VOC content (prior to any recommended dilution) and the as-applied VOC content (based on any recommended dilution) of each material. The VOC content of inks, coatings, and adhesives shall be given pursuant to Section 231.3 B.1. The VOC content of fountain solutions, makeup solvents, and surface preparation and cleanup solvents shall be given pursuant to Section 231.3 B.2.

231.5 MONITORING AND RECORDS

A. **USAGE RECORDS:** Effective **MARCH 27, 1995**, any person subject to this rule, including facilities claiming exemption under Sections 231.1 B.1., and 231.1 B.2., shall comply with the following requirements:
   1. The person shall maintain a current list of inks, coatings, adhesives, fountain solutions, makeup solvents (reducers, thinners), and surface preparation and cleanup solvents which states the VOC content of each, on an as-applied (press-ready) basis. The VOC content of inks, coatings, and adhesives shall be given pursuant to Section 231.3 B.1. The VOC content of fountain solutions, makeup solvents, and surface preparation and cleanup solvents shall be given pursuant to Section 231.3 B.2. For persons using graphic arts materials exceeding the VOC limits specified in Section 231.3 B., and using a control system pursuant to Section 231.3 C., daily records shall be maintained of the type and volume of graphic arts materials used.
   2. For persons using graphic arts materials which comply with the VOC limits specified in Section 231.3 B., records shall be maintained on a monthly basis, showing the type and volume of inks, coatings, adhesives,

fountain solutions, and makeup solvents used, and solvents or other materials used for surface preparation, cleanup, or ink, coating, or adhesive removal.

3. Such records shall be maintained on-site for two years and made available for review by the Air Pollution Control Officer upon request.
4. Records as required by the Operation and Maintenance Plan in Section 231.4 B., shall be maintained by the source on a daily basis.
5. Any person using Section 231.3 A.3., as a means of complying with this rule shall maintain the records stipulated in Section 231.5 A.2., on a daily basis, instead of monthly. In addition, the person shall maintain daily records of the number of production units produced per day.

B. **TEST METHODS**

1. ANALYSIS OF SAMPLES: Measurement of the volatile content in adhesives, coatings, fountain solutions, makeup solvents, surface preparation and cleanup solvents, and all inks (except as provided for in Section 231.5 B.2.) shall be made in accordance with EPA Method 24. EPA Method 24A shall be used for testing publication rotogravure inks.
2. ANALYSIS OF SAMPLES, NONHEATSET POLYMERIZING LITHOGRAPHIC OR LETTERPRESS INKS: Measurement of the volatile content shall be made in accordance with EPA Method 24. All components of the sample must be weighed in the proper proportion into the analysis container and mixed together, with the mixture then being allowed to stand for at least one hour, but no more than 24 hours, prior to being oven-dried at 110 degrees C for 1 hour.
3. DETERMINATION OF EXEMPT COMPOUNDS: Exempt compounds, as listed in Section 231.2 Y., shall be determined in accordance with ASTM D 4457-85 or ARB Method 432. If any of the perfluorocarbons are being claimed as exempt compounds, the person making the claim must state in advance which compounds are present, and the EPA-approved test method used to make the determination of these compounds.
4. DETERMINATION OF CONTROL DEVICE EFFICIENCY: Control efficiency of control equipment shall be determined in accordance with EPA Method 25.
5. DETERMINATION OF COLLECTION SYSTEM EFFICIENCY: Collection efficiency of the collection system shall be determined in accordance with EPA Guidelines for Developing Capture Efficiency Protocols, 55 Federal Register 26865, June 29, 1990.

EL DORADO COUNTY

AIR POLLUTION CONTROL DISTRICT

CLEAN AMENDED RULE 232

BIOMASS BOILERS

RULE 232 BIOMASS BOILERS

INDEX

RULE 232

BIOMASS BOILERS

232.1 GENERAL

A. **APPLICABILITY:** This rule applies to boilers and steam generators with rated heat inputs of greater than or equal to 5 million BTU per hour and which have a primary energy source of biomass consisting of a minimum of 75 percent of the total annual heat input.

B. **FEDERAL REGULATIONS:** Compliance with this rule shall not exempt a person from complying with any federal regulation promulgated pursuant to the Clean Air Act (42 U.S.C. Section 7401 et seq.).

C. **EXEMPTION, BOILERS, STEAM GENERATORS, AND PROCESS HEATERS:** This rule shall not apply to boilers, steam generators, and process heaters subject to Rule 229 INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS.

D. **EXEMPTION, MUNICIPAL SOLID WASTE:** This rule shall not apply to combustion units whose primary purpose is to burn municipal solid waste, as defined in Section 232.2 F.

E. **EXEMPTION, WASTE HEAT RECOVERY BOILERS:** The provisions of this rule do not apply to waste heat recovery boilers used to recover sensible heat from the exhaust of combustion turbines or unfired waste heat recovery boilers used to recover sensible heat from the exhaust of any combustion equipment.

232.2 DEFINITIONS

A. **BIOMASS:** Any organic material not derived from fossil fuels, such as agricultural crop residues, bark, lawn, yard and garden clippings, leaves, silvicultural residue, tree and brush pruning, wood and wood chips, and wood waste, including these materials when separated from other waste streams. Biomass does not include material containing sewage sludge, industrial sludge, medical waste, hazardous waste, or radioactive waste.

B. **BIOMASS BOILER OR STEAM GENERATOR:** Any combustion equipment used in any industrial, institutional, or commercial operation designed to burn biomass to produce steam, heat water or other fluids, and/or produce electricity.

C. **BRITISH THERMAL UNIT (BTU):** The amount of heat required to raise the temperature of one pound of water from 59°F to 60°F at one atmosphere.

D. **HEAT INPUT:** The chemical heat released due to fuel combustion in a boiler, using the higher heating value of the fuel. This does not include the sensible heat of incoming combustion air.

E. **HIGHER HEATING VALUE (HHV):** 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 their standard states at standard conditions. HHV shall be determined by one of the following test methods:

1. ASTM D 2015-85 for solid fuels; or

2. ASTM D 240-87 or ASTM D 2382-82 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.

F. **MUNICIPAL SOLID WASTE:** Household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single or multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, hospitals, prisons, and government facilities and other similar establishments or facilities.

G. **NO_X EMISSIONS:** The sum of nitric oxides and nitrogen dioxide in the flue gas, collectively expressed as nitrogen dioxide (NO_2).

H. **PARTS PER MILLION BY VOLUME (PPMV):** The ratio of the number of gas molecules of a given species, or group, to the number of millions of total gas molecules.

I. **RATED HEAT INPUT CAPACITY:** The heat input capacity, in million BTU per hour, specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified such that its maximum heat input is different than the input capacity specified on the nameplate, and this alteration or modification has been approved in writing by the Air Pollution Control Officer, then the new maximum heat input shall be considered as the rated heat input capacity.

J. **RESPONSIBLE OFFICIAL:** An individual with the authority to certify that a source complies with all applicable requirements, including the conditions of permits issued to sources in accordance with Regulation V PERMITS. A "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, or 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 permit and either:

a. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

b. The delegation of authority to such representative is approved in advance by the Air Pollution Control Officer;

2. For a partnership or sole proprietorship, a general partner or the proprietor, respectively; or

3. For a municipality, state, federal, or other public agency, either a principal executive officer or a ranking elected official; or

4. For an acid rain unit subject to Title IV (Acid Deposition Control) of the Clean Air Act, the "responsible official" is the designated representative of that unit for any purposes under Title IV and Rule 522 FEDERAL OPERATING PERMIT PROGRAM.

K. **SHUTDOWN:** The period of time a unit is cooled from its normal operating temperature to cold or ambient temperature.

L. **STARTUP:** The period of time a unit is heated from cold or ambient temperature to its normal operating temperature as specified by the manufacturer.

M. **UNIT:** Any biomass boiler or steam generator as defined in Section 232.2 B.

N. **WOOD:** Wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

232.3 STANDARDS

A. LIMITATIONS

1. No person shall allow the discharge of NO_x emissions into the atmosphere from a biomass boiler or steam generator in excess of the following standards, whichever is less stringent:

a. An exhaust concentration of 115 parts per million (ppmv) corrected to 12 percent by volume stack gas carbon dioxide (CO_2) on a rolling three-hour average dry basis.

b. 50 percent of the uncontrolled NO_x emission concentration in the exhaust gas stream. A corresponding controlled concentration limit, expressed in ppmv corrected to 12 percent by volume stack gas CO_2 on a rolling three-hour average dry basis, shall be established in a Permit to Operate for the purpose of demonstrating continuous compliance with the 50 percent emission reduction.

2. A person operating a biomass boiler or steam generator subject to this rule shall establish a carbon monoxide (CO) emission limitation that represents good operating and combustion practices. No person shall allow the discharge of CO into the atmosphere in excess of historical actual averages or 120 percent of the CO exhaust concentration established by an initial compliance test conducted in accordance with Section 232.5 C. The CO concentration in ppmv shall be corrected to 12 percent by volume stack gas CO_2 on a rolling 3-hour average dry basis.

232.4 ADMINISTRATIVE REQUIREMENTS

A. COMPLIANCE SCHEDULE

1. Any person operating a unit subject to this rule that does not need to be retrofitted or have new control equipment installed to comply with the emission limitations of Section 232.3, shall demonstrate full compliance by **May 15, 1995**.

2. Any person operating a unit subject to this rule shall demonstrate compliance with the emissions monitoring requirements of Section 232.5 B., in accordance with the following schedule:

   a. By **April 18, 1995**, submit plans and specifications for the Emissions Monitoring System, including milestones for installation and certification of the proposed system.

   b. By **October 18, 1996**, achieve full compliance with all requirements of Section 232.5 B. Full compliance shall be achieved no later than 60 days after installation of the Emissions Monitoring System.

3. Any person operating a unit that is required to install emission control equipment to achieve compliance, Section 232.3, shall achieve final compliance with emission limitations by no later than two (2) years after the determination is made that emission control equipment is required.

B. OPERATION AND MAINTENANCE PLAN:

Any person using an emission control device as a means of complying with the emission limitations of Section 232.3 A., shall submit an Operation and Maintenance Plan with the application for Authority to Construct for the emission control device.

1. The Operation and Maintenance Plan shall specify:

   a. Operation and maintenance procedures that will demonstrate continuous operation of the emission control device during emission-producing operations; and

   b. Records that must be kept to document the operation and maintenance procedures.

2. The records must comply with Sections 232.5 A., 232.5 B., and 232.5 C.

3. The Operation and Maintenance Plan shall be implemented upon approval by the Air Pollution Control Officer.

4. After completing the construction of the emission control device, the Operation and Maintenance Plan shall be resubmitted annually for approval.

C. **COMPLIANCE COSTS:** A person operating a unit subject to this rule shall bear all expenses associated with compliance with the monitoring and reporting provisions of this rule.

D. **CERTIFICATION:** All reports submitted in accordance with this rule shall be signed by a responsible official who shall certify the truth, accuracy, and completeness of the report.

232.5 MONITORING AND RECORDS

A. **RECORDKEEPING:** A person operating a unit subject to this rule shall keep the following records for each unit:

1. Calendar date of record.

2. Number of hours the unit is operated during each day.

3. Boiler load.

4. Fuel types, including supplementary gaseous or liquid fuels.

5. Duration of startups and shutdowns.

6. Type and duration of maintenance and repairs.

7. Results of compliance tests.

8. Rolling three-hour average NO_x emission concentration (expressed as NO_2 and corrected to 12 percent by volume stack gas CO_2).

9. Rolling three-hour average CO emission concentration (corrected to 12 percent by volume stack gas CO_2).

10. Identification of time periods during which NO_x and CO emission limitations are exceeded, the reason for the exceedance, and a description of corrective action taken.

11. Identification of time periods during which operating condition and pollutant emission data were not obtained, the reason for not obtaining this information, and a description of corrective action taken.

B. **EMISSIONS MONITORING**

1. By the applicable compliance date in Section 232.4 A.2.b., a person operating a unit subject to this rule shall install, calibrate, operate, and maintain a Continuous Emissions Monitoring System (CEMS) in accordance with applicable requirements of Appendices B and F of Title 40 Code of Federal Regulations Part 60 (40 CFR 60), unless an Alternative Emissions Monitoring Plan (AEMP) has been approved by the Air Pollution Control District. Before approving an AEMP, the District shall request approval from the United States Environmental Protection Agency and the California Air Resources Board.

2. The CEMS shall include equipment that measures and records the following on a continuous basis, exhaust gas NO_x and CO concentrations corrected to 12 percent by volume stack gas CO_2 dry basis.

3. An AEMP shall include equipment that measures and records the average NO_x and CO concentrations calculated on a rolling three-hour average basis.

4. A person operating a CEMS shall submit an excess emissions and monitoring systems performance report to the Air Pollution Control Officer within 30 days after the end of each calendar quarter in accordance with 40 CFR 60, Section 60.7(c) and (d) and Section 60.13.

C. **INITIAL COMPLIANCE TEST**

1 A person who elects to comply with the limitation specified in Section 232.3 A.1.a., shall conduct an initial compliance test no later than the applicable final compliance date in Section 232.4 A.1. The source test shall also be used to establish the CO limitation in accordance with Section 232.3 A.2.

a. Each emission test run shall be conducted while the unit is operated at maximum operating capacity. No emission test shall be conducted during startup, shutdown, or under breakdown conditions for the purpose of the initial compliance test.

b. The initial compliance test shall be conducted for NOx and CO using the test methods specified in Section 232.5 D.

2. A person who chooses to comply with the limitation specified in Section 232.3 A.1.b., shall conduct an initial compliance test no later than the applicable final compliance date in Section 232.4 A.1. The source test shall also be used to establish the CO limitation in accordance with Section 232.3 A.2.

a. Each emission test run shall be conducted while the unit is operated at maximum operating capacity. No emission test shall be conducted during startup, shutdown, or under breakdown conditions for the purpose of the initial compliance test.

b. The initial compliance test shall be conducted for NOx and CO using the test methods specified in Section 232.5 D.

c. The 50 percent NO_x emission reduction specified in Section 232.3 A.1.b., shall be calculated based on the pre- and post-controlled NO_x concentration corrected to 12 percent by volume stack gas CO_2. The pre-controlled concentration to be used in demonstrating the 50 percent reduction shall be obtained using the test methods specified in Section 232.5 D. The pre-controlled concentration shall be submitted to the Air Pollution Control Officer in the application for Authority to Construct specified in Section 232.4 A.2., or in a previously submitted application for Authority to Construct for an existing unit.

3. At least sixty (60) days prior to the initial compliance test, a written test plan detailing the test methods and procedures to be used shall be submitted for approval by the Air Pollution Control Officer. The plan shall cite the test methods to be used for the determination of compliance with the emission limitations of this rule. The plan shall provide the proposed procedures for the characterization of the representative biomass materials to be burned during testing.

D. **TEST METHODS:** A person conducting source tests in accordance with Section 232.5 C., shall use the following test methods:

1. Nitrogen Oxides (NO_x) - ARB Test Method 100, Title 17, CCR, Section 94114, Procedures for Continuous Emission Stack Sampling, or EPA Test Method 7E, 40 CFR 60, Appendix A. A violation determined by any of these test methods shall constitute a violation of this rule.

2. Carbon Monoxide (CO) - ARB Test Method 10, Title 17, CCR, Section 94109, Determination of Carbon Monoxide Emissions from Stationary Sources, or ARB Test Method 100, or EPA Test Method 10, 40 CFR 60, Appendix A. A violation determined by any of these test methods shall constitute a violation of this rule.

3. Carbon Dioxide (CO_2) - ARB Test Method 100, Title 17, CCR, Section 94114, Procedures for Continuous Emission Stack Sampling, or EPA Test Method 3A, 40 CFR 60, Appendix A. A violation determined by any of these test methods shall constitute a violation of this rule.

E. **DURATION OF RECORDS:** All records maintained pursuant to this rule shall be retained for at least five years from date of entry. Records shall be made available for inspection by the Air Pollution Control Officer upon request.

ADOPTED: October 18, 1994

RESCINDED:

AMENDED: January 23, 2001, September 25, 2001

072401R232BiomassBoilerAmend3Clean

RULE 233 STATIONARY INTERNAL COMBUSTION ENGINES

INDEX

RULE 233

STATIONARY INTERNAL COMBUSTION ENGINES

233.1 GENERAL

A. **PURPOSE:** The purpose of this rule is to limit the emission of oxides of nitrogen (NO_x) and carbon monoxide (CO) from stationary internal combustion engines.

B. **APPLICABILITY:** This rule applies to any stationary internal combustion engine rated at more than 50 brake horsepower, operated on any gaseous fuel or liquid fuel, including liquid petroleum gas (LPG), gasoline, or diesel fuel. This rule shall not apply to engines used directly and exclusively for agricultural operations necessary for the growing of crops or the raising of fowl and animals.

C. **EXEMPTIONS:** The provisions of this rule, except for Section 233.5 C., and 233.5 D., shall not apply to the operation of stationary internal combustion engines used under the following conditions:

1. Engines rated 50 brake horsepower or less, or

2. Engines operated less than 200 hours per calendar year, or

3. Emergency standby engines operated either during an emergency or maintenance operation. Maintenance operation is limited to 50 hours per calendar year, or

4. Engines used in research or teaching programs, or

5. Engine test stands used for evaluating engine performance, or

6. Diesel engines with a permitted capacity factor of 15 percent or less, or

7. Diesel engines used to power cranes and welding equipment.

233.2 DEFINITIONS

A. **BASELINE EMISSION RATES:** Emissions under normal operating conditions, prior to control, as determined by a source test conducted in accordance with Section 233.5 B., of this rule.

B. **DIESEL ENGINE:** A compression ignited two or four-stroke engine in which liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto--ignition.

C. **EMERGENCY STANDBY ENGINE:** An internal combustion engine used only as follows:

1. When normal power line or natural gas service fails.

2. For the emergency pumping of water for either fire protection or flood relief.

An emergency standby engine may not be operated to supplement a primary power source when the load capacity or rating of the primary power source has either been reached or exceeded.

D. **ENGINE RATING:** The output of an engine as determined by the engine manufacturer and listed on the nameplate of the engine, regardless of any derating.

E. **LEAN-BURN ENGINE:** Any two or four-stroke spark-ignited engine that is not a rich-burn engine.

F. **MAINTENANCE OPERATION:** The use of an emergency standby engine and fuel system during testing, repair and routine maintenance to verify its readiness for emergency standby use.

G. **OUTPUT:** The shaft work output from an engine plus the energy reclaimed by any useful heat recovery system.

H. **PERMITTED CAPACITY FACTOR:** The annual permitted fuel use divided by the manufacturer's specified maximum hourly fuel consumption times 8760 hours per year.

I. **RICH-BURN ENGINE:** A two or four-stroke spark-ignited engine where the manufacturer's original recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio is less than or equal to 1.1. Engines using passive emission control technology (such as the use of pre-combustion chambers), and are listed as lean-burn engines on their Permit to Operate, shall be considered lean-burn engines.

J. **PEAK LOAD:** Maximum instantaneous operating load.

K. **STATIONARY INTERNAL COMBUSTION ENGINE:** Any internal combustion engine of the reciprocating type that is operated at a site for more than one year or is attached to a foundation, not including engines used for self-propulsion.

L. **STOICHIOMETRIC AIR/FUEL RATIO:** The chemically correct air/fuel ratio where all fuel and all oxygen in the air/fuel mixture will be consumed.

M. **WASTE GAS:** Fuel gas produced at either waste water/sewage treatment facilities or landfills containing no more than 25 percent by volume supplemental gas.

233.3 STANDARDS

A. **LIMITS:**

1. After the applicable compliance date specified in Section 233.4 A.1., of this rule, the owner or operator of an existing stationary internal combustion engine to which this rule is applicable and who does not need to retrofit the unit or install new control equipment to comply with the provisions of this rule, shall limit the emissions from that engine to no more than the following:

    a. Rich-burn stationary internal combustion engine NO_x emissions shall not exceed 50 ppmv and CO emissions shall not exceed 2,000 ppmv.

    b. Lean-burn stationary internal combustion engine NO_x emissions shall not exceed 125 ppmv and CO emissions shall not exceed 2,000 ppmv.

c. Diesel fired stationary internal combustion engine NO_x emissions shall not exceed 700 ppmv and CO emissions shall not exceed 2,000 ppmv.

where: ppmv = parts per million volume at 15% oxygen on a dry basis
NO_x = oxides of nitrogen
CO = carbon monoxide

2. After the applicable compliance date specified in Section 233.4 A.2., of this rule, the owner or operator of an existing stationary internal combustion engine to which this rule is applicable and who must retrofit the unit to comply with the provisions of this rule, shall limit the emissions from that engine to no more than the following:

a. Rich-burn stationary internal combustion engine NO_x emissions shall not exceed 50 ppmv and CO emissions shall not exceed 2,000 ppmv.

b. Lean-burn stationary internal combustion engine NO_x emissions shall not exceed 125 ppmv and CO emissions shall not exceed 2,000 ppmv.

c. Diesel fired stationary internal combustion engine NO_x emissions shall not exceed 600 ppmv and CO emissions shall not exceed 2,000 ppmv.

where: ppmv = parts per million volume at 15% oxygen on a dry basis
NO_x = oxides of nitrogen
CO = carbon monoxide

3. The owner or operator of any new or replacement stationary combustion engine shall limit the emissions from that engine to those levels established in Section 233.3 A.5 or 233.3 A.6.

4. In lieu of the emission limits specified in Sections 233.3 A.1., or 233.3 A.2., of this rule, an owner or operator of an internal combustion engine may elect to replace the unit with an electric motor or permanently remove the engine from service in accordance with the applicable compliance schedule specified in Section 233.4 A.8., of this rule.

5. After the applicable compliance date specified in Section 233.4 A.5., of this Rule, the owner or operator of a stationary internal combustion engine which does not require retrofit or installation of new control equipment in order to comply with the provisions of this rule shall limit the emissions from that engine to no more than the following:

   a. Rich-burn stationary internal combustion engine NO_x emissions shall not exceed 25 ppmv or shall attain a 96 percent NO_x reduction and CO emissions shall not exceed 2,000 ppmv.

   b. Lean-burn stationary internal combustion engine NO_x emissions shall not exceed 65 ppmv or shall attain a 90 percent NOx reduction and CO emissions shall not exceed 2,000 ppmv.

   c. Diesel fired stationary internal combustion engine NO_x emissions shall not exceed 700 ppmv and CO emissions shall not exceed 2,000 ppmv.

      where: ppmv = parts per million volume at 15% oxygen on a dry basis
      NO_x = oxides of nitrogen
      CO = carbon monoxide

6. After the applicable compliance date specified in Section 233.4 A.6., of this rule, the owner or operator of an existing stationary internal combustion engine to which this rule is applicable and who must retrofit the unit to comply with the provisions of this rule, shall limit the emissions from that engine to no more than the following:

   a. Rich-burn stationary internal combustion engine NO_x emissions shall not exceed 25 ppmv or shall attain a 96 percent NO_x reduction and CO emissions shall not exceed 2,000 ppmv.

   b. Lean-burn stationary internal combustion engine NO_x emissions shall not exceed 65 ppmv or shall attain a 90 percent NOx reduction and CO emissions shall not exceed 2,000 ppmv.

c. Diesel fired stationary internal combustion engine NO_x emissions shall not exceed 600 ppmv and CO emissions shall not exceed 2,000 ppmv.

where: ppmv = parts per million volume at 15% oxygen on a dry basis
NO_x = oxides of nitrogen
CO = carbon monoxide

7. In lieu of the emission limits specified in Sections 233.3 A.5., or 233.3 A.6., of this rule, an owner or operator of an internal combustion engine may elect to replace the unit with an electric motor or permanently remove the engine from service in accordance with the applicable compliance schedule specified in Section 233.4 A.8., of this rule.

B. **ENGINE OPERATOR INSPECTION PLAN:** The operator of an engine subject to the provisions of Sections 233.3 A., of this rule shall submit to the Air Pollution Control Officer an Engine Operator Inspection Plan. The plan shall be approved by the Air Pollution Control Officer in writing. The plan shall be updated after any change in operation. For new engines and modifications to existing engines, the plan shall be submitted to and approved by the Air Pollution Control Officer prior to issuance of the Permit to Operate. The operator may request a change to the plan at any time. The plan shall include the following:

1. The manufacturer, model number, rated horsepower, and combustion method (i.e., rich-burn, lean-burn, or diesel) of the engine.

2. A description of the NOx control system installed on the engine (if any), including type (e.g., nonselective catalyst, "clean-burn" combustion) and manufacturer, as well as a description of any ancillary equipment related to the control of emissions (e.g., automatic air/fuel ratio controller, fuel valves).

3. The company identification and location of the engine by a schematic of the affected facilities.

4. A specific emission inspection procedure to assure that the engine is operated in continual compliance with the provisions of this rule. The procedure shall include an inspection schedule. Inspections shall be conducted every quarter or after every 2,000 hours of engine operation. In no event shall the frequency of inspection be less than once per year. Testing results from individual engines in terms of rate brake horsepower, operational conditions, fuel used, and control method may satisfy these inspection requirements. Prior to implementation of testing, test plans shall be submitted to and approved in writing by the Air Pollution Control Officer.

5. Each preventative or corrective maintenance procedure or practice that will be used to maintain the engine and NO_x control system in continual compliance with the provisions of this rule.

233.4 ADMINISTRATIVE REQUIREMENTS

A. COMPLIANCE SCHEDULE:

1. Owners or operators of existing engines shall comply with the applicable provisions of Section 233.3 A.1., of this rule in accordance with the following schedule:

    a. No later than **April 18, 1995**, submit to the Air Pollution Control Officer:

        1. An Engine Operator Inspection Plan pursuant to Section 233.3 B., of this rule and a complete application for an Authority to Construct, as necessary, or

        2. Support documentation for each exempt engine, pursuant to Section 233.5 C., of this rule.

    b. Demonstrate full compliance with all provisions of this rule no later than **May 15, 1995**.

2. Owners or operators of existing engines shall comply with the applicable provisions of Section 233.3 A.2., of this rule in accordance with the following schedule:

a. No later than **April 18, 1995**, submit to the Air Pollution Control Officer:

1. An Engine Operator Inspection Plan pursuant to Section 233.3 B., of this rule, or

2. Support documentation for each exempt engine, pursuant to section 233.5 C., of this rule.

b. Submit a complete application for an Authority to Construct for all modifications no later than **May 15, 1995**.

c. By **January 1, 1997**, commence construction of all retrofits and/or additions of new control equipment, as approved by the Air Pollution Control Officer.

d. Demonstrate full compliance with the applicable provisions of this rule no later than **May 15, 1997**.

3. Any owner or operator of a new or replacement unit that is constructed on or after **October 18, 1994**, shall complete an application for an Authority to Construct prior to beginning construction of the unit. The owner or operator shall demonstrate that the unit will be operated in compliance with all applicable provisions of this rule within 60 days after the date of initial startup of the unit.

4. An owner or operator that elects to replace a stationary internal combustion engine with an electric motor as specified in Section 233.3 A.4., of this rule or permanently removes the engine from service shall demonstrate compliance with all the applicable requirements of this rule no later than **May 15, 1999**. The owner or operator shall submit a complete application for an Authority to Construct for conversion to electric power no later than **January 1, 1997**, and shall commence conversion of the unit no later than **January 1, 1999**, or permanently remove the engine from service by **May 15, 1999**.

5. Owners or operators of new or existing engines which do not require retrofit or installation of new control equipment in order to comply with the provisions of this rule shall comply with the applicable provisions of Section 233.3 A.5., of this Rule in accordance with the following schedule:

    a. No later than **October 22, 2002**, submit to the Air Pollution Control Officer:

        1. An Engine Operator Inspection Plan pursuant to Section 233.3 B., of this rule and a complete application for an Authority to Construct, as necessary, or

        2. Support documentation for each exempt engine, pursuant to Section 233.5 C., of this rule.

    b. Demonstrate full compliance with all provisions of this rule no later than **October 22, 2002**.

6. Owners or operators of new or existing engines which require retrofit or installation of new control equipment in order to comply with the provisions of this rule shall comply with the applicable provisions of Section 233.3 A.6., of this rule in accordance with the following schedule:

    a. No later than **October 22, 2002**, submit to the Air Pollution Control Officer:

        1. An Engine Operator Inspection Plan pursuant to Section 233.3 B., of this rule, or

        2. Support documentation for each exempt engine, pursuant to section 233.5 C., of this rule.

b. Submit a complete application for an Authority to Construct for all modifications no later than **October 22, 2002**.

c. By **July 1, 2004**, commence construction of all retrofits and/or additions of new control equipment, as approved by the Air Pollution Control Officer.

d. Demonstrate full compliance with the applicable provisions of this rule no later than **December 1, 2004**.

7. Any owner or operator of a new or replacement unit that is constructed on or after **June 11, 2002**, shall complete an application for an Authority to Construct prior to beginning construction of the unit. The owner or operator shall demonstrate that the unit will be operated in compliance with all applicable provisions of this rule within 60 days after the date of initial startup of the unit.

8. An owner or operator that elects to replace a stationary internal combustion engine with an electric motor as specified in Section 233.3 A.7., of this rule or permanently removes the engine from service shall demonstrate compliance with all the applicable requirements of this rule no later than **December 1, 2005**. The owner or operator shall submit a complete application for an Authority to Construct for conversion to electric power no later than **December 1, 2003**, and shall commence conversion of the unit no later than **May 1, 2005**, or permanently remove the engine from service by **December 1, 2005**.

B. **REPORTING REQUIREMENTS:** Prior to renewal of any Permit to Operate, each operator subject to the provisions of this rule shall provide the Air Pollution Control Officer with data specifying the actual annual usage (e.g., fuel consumption, actual operating hours) of each affected engine. The data shall also include the engine manufacturer, model number, Permit number, and location of each affected engine, a summary of the maintenance and testing reports required in Section 233.3 B., of this rule, and an annual emissions report.

C. **SOURCE TESTING FREQUENCY:**

1. If applicable to this rule, conduct screening analysis with the use of a portable NOx analyzer

   a. During any quarter in which a source test is not performed, a portable NOx analyzer shall be used to take NOx emission readings to verify compliance with the emission limits or percent control specified in section 233.3 A.

   b. All emission readings shall be taken at an engine's actual peak load and under the engine's typical duty cycle.

   c. The analyzer shall be calibrated, maintained and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the Air Pollution Control Officer.

   d. In conducting quarterly screenings with a portable analyzer, an instrument reading in excess of the emission compliance values shall not be considered a violation, so long as the engine is brought into compliance within 15 days of the initial out of compliance reading. All NOx readings shall be reported to the Air Pollution Control Officer (APCO) or the APCO's designee in a manner specified by the Air Pollution Control Officer.

2. If applicable, emission source testing for Stationary Internal Combustion Engines.

   a) The owner of operator shall arrange for and assure that an emissions source test is performed on each stationary internal combustion engine at least once every 24 months.

   b) All emission readings shall be taken at an engine's actual peak load and under the engine's typical duty cycle.

   c) Prior to any source test required by this rule, a source test protocol shall be prepared and submitted to the Air Pollution Control Officer. In addition to other information, the source test protocol shall describe which critical parameters will be established and incorporated into the Engine Operator Inspection Plan described in section 2333.3 B. The source test protocol shall be approved by the Air Pollution Control Officer prior to any testing. NOx and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines using exhaust controls, NOx shall also be

reported as a percent reduction across the control device. All source test reports shall be submitted to the Air Pollution Control Officer or his designee.

D. **VIOLATIONS:**

1. Failure to comply with any provisions of this rule shall constitute a violation of this rule.

2. It is the responsibility of the engine operator to demonstrate to the satisfaction of the Air Pollution Control Officer that an engine subject to the provisions of this rule is being operated in continuous compliance with all applicable provisions of this rule.

3. An engine shall be in violation if it is operated out of compliance with the operating parameters of an approved Engine Operator Inspection Plan. However, if data from a source test of the engine operating under identical conditions indicates that the engine is in compliance with the requirements of this rule, then a violation will - not have occurred. The source test shall be conducted at the engine operator's expense. The Engine Operator Inspection Plan shall be amended to reflect the information from this source test.

233.5 MONITORING AND RECORDS

A. **RECORDS:** The operator of any engine subject to the provisions of Section 233.3 A., of this rule shall maintain an inspection log containing at a minimum, the following data:

1. Identification and location of each engine subject to the provisions of this rule;

2. Date and results of each emission inspection;

3. A summary of any corrective emissions maintenance taken to ensure compliance with the emissions limits or reductions specified in Sections 233.3 A.1., or 233.3 A.2., of this rule; and

4. Any additional information required in the Engine Operator Inspection Plan.

The operator shall maintain the inspection log for a period of two years after the date of each entry. The log shall be available for inspection by the Air Pollution Control Officer upon request.

B. **TEST METHODS:**

1. Oxides of nitrogen emissions for compliance source tests shall be determined in accordance with EPA Method 7E or CARB Method 100.

2. Carbon Monoxide emissions for compliance source tests shall be determined in accordance with EPA Method 10 or CARB Method 100.

3. Oxygen content for compliance source tests shall be determined in accordance with EPA Method 3A or CARB Method 100.

4. Screening analyses shall be performed by using a portable analyzer approved in writing by the Air Pollution Control Officer.

5. NO_x emission limitations specified in Sections 233.3 A.1., 233.3 A.2., 233.3 A.5., and 233.3 A.6., of this rule shall be expressed as nitrogen dioxide. All ppmv emission limitations are referenced at 15 percent volume stack gas oxygen measured on a dry basis. Source test data point intervals shall be no greater than 5 minutes and data points shall be averaged over 15 consecutive minutes.

6. The heating value of fuel oil shall be determined in accordance with ASTM Method D240-87. The heating value of gaseous fuels shall be determined in accordance with ASTM Method D1826-77.

C. **EXEMPTION RECORDS:**

1. Any owner or operator claiming an exemption under Section 233.1 C., of this rule shall submit support documentation identifying reasons for the exemption. Such documentation shall contain a list that provides the following for each engine:

   a. Permit to Operate number;

   b. Engine manufacturer;

   c. Model designation;

   d. Rated brake horsepower;

   e. Type of fuel and type of ignition.

2. In addition to the requirements specified in Section 233.5 C.1., of this rule, an owner or operator claiming an exemption under Sections 233.1 C.2., and 233.1 C.3., of this rule shall maintain a log of operating hours for each engine.

3. Exemption records specified in Sections 233.5 C.1., and 233.5 C.2., of this rule shall be retained for two years and be made available to the Air Pollution Control Officer upon request.

D. **NONRESETTABLE METERS**

1. Fuel Meter

   All engines subject to this rule, emergency standby engines, and engines operated less than 200 hours per calendar year shall have installed a nonresettable fuel meter.

2. Elapsed Operating Time Meter

   All engines subject to this rule, emergency standby engines, and engines operated less than 200 hours per calendar year shall have installed a nonresettable elapsed operating time meter.

ADOPTED: October 18, 1994

AMENDED: September 25, 2001, June 11, 2002

RESCINDED:

h:\apcd\rules\Rule 233-02\061102Rule233AmendedClean

RULE 234 VOC RACT RULE - SIERRA PACIFIC INDUSTRIES

ADOPTED: April 25, 1995

234.1 GENERAL

A. **APPLICABILITY:** The provisions of this determination (rule) shall apply to the Sierra Pacific Industries or any subsequent owner or operator of the Sierra Pacific Industries facility located at 3970 Carson Road, Camino, California. All provisions are RACT and the emissions standards only apply to the main wood waste-fired boiler (Boiler #3) at the facility.

234.2 DEFINITIONS

A. **AIR POLLUTION CONTROL OFFICER (APCO):** The Air Pollution Control Officer of the El Dorado County Air Pollution Control District, or his or her designee.
B. **BOILER:** Any external combustion equipment fired with any fuel used to produce heat or steam.
C. **EXEMPT COMPOUNDS:** Means any of the following compounds:
    1. methane (CH_4)
    2. carbon dioxide (CO_2)
    3. carbon monoxide (CO)
    4. carbonic acid ($CO(OH)_2$)
    5. metallic carbides (M-C) or carbonates ($M\text{-}CO_3$)
    6. ammonium carbonate ($(NH_4)HCO_3(NH_4)CO_2NH_2$)
    7. 1,1,1-trichloroethane (methyl chloroform)
    8. methylene chloride (dichloromethane)
    9. trichlorofluoromethane (CFC-11)
    10. dichlorodifluoromethane (CFC-12)
    11. chlorodifluoromethane (HCFC-22)
    12. trifluoromethane (HFC-23)
    13. 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113)
    14. 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
    15. chloropentafluoroethane (CFC-115)
    16. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
    17. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
    18. pentafluoroethane (HCFC-125)
    19. 1,1,2,2-tetrafluoroethane (HCFC-134)
    20. 1,1,1,2-tetra fluoroethane (HCFC-134a)
    21. 1,1-dichloro-1-fluoroethane (HCFC-141b)
    22. 1-chloro-1,1-difluoroethane (HCFC-142b)
    23. 1,1,1-trifluoroethane (HFC-143a)
    24. 1,1-difluoroethane (HFC-152a)
    25. parachlorobenzotriflouride (PCBTF)
    26. volatile cyclic and linear methyl siloxanes (VMS)
    27. The following 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. sulphur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine. Perfluorocarbons shall be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present in the product or process and provides an EPA approved test method which can be used to quantify the specific compounds.

D. **PPMV:** Is the concentration of pollutant in units of parts per million, by volume.
E. **PRODUCTION RATE:** Is the total steam output of a boiler in pounds of steam per hour (lbs-steam/hour) of boiler operation.
F. **REASONABLE AVAILABLE CONTROL TECHNOLOGY (RACT):** For the purposes of this determination (rule), means the lowest emission limitation that a particular boiler is capable of meeting by using measures that are reasonably available in terms of technological and economic feasibility. Such measures may include either control system(s) or improved combustion conditions, or both.
G. **TOTAL ORGANIC GASES:** Any compounds that contain at least one carbon atom.
H. **VOLATILE ORGANIC COMPOUND (VOC):** Any compound containing at least one atom of carbon, except exempt compounds as defined above.
I. **WOOD WASTES:** Include bark, sawdust, shavings, hogged wood, and other wood refuse generated during processing operations.

234.3 STANDARDS

Emission limits in this section are referenced to dry stack gas conditions, all VOC ppmv concentrations shall be corrected to twelve percent (12%) by volume stack gas carbon dioxide (CO_2), and VOCs are reported as methane (CH_4).

A. **EMISSION LIMITS (ppmv):** VOC emissions from wood waste boiler operations at a production rate exceeding an annual (calendar year) average of 50,000 lbs-steam per hour as defined in Section 234.2 of this rule must meet the emission limit of 150 ppmv of VOC in the stack exhaust stream.
B. **EMISSION LIMIT MAINTENANCE:** The VOC emission limit presented in Section 234.3 A., shall be maintained through any one or more of the following provisions:
    1. Use of fuel with a maximum moisture content of 50%,
    2. Operation of the boiler at optimal combustion conditions,
    3. Proper operation and maintenance of pollution control equipment, and
    4. Periodic inspection, maintenance, and repairs on the boiler and other equipment.

234.4 ADMINISTRATIVE REQUIREMENTS

A. **COMPLIANCE SCHEDULE:** The VOC emission limit defined in Section 234.3 A., shall be achieved on or before 1 February 1996.
B. **EMISSIONS TESTING AND RECORDS:** The facility subject to the standards of Section 234.3 of this rule shall, at a minimum, conduct sample analysis for VOC pollutants at least once each year or at the discretion of the Air Pollution Control Officer (APCO). The Air Pollution Control Officer shall be provided with adequate advance notification at least 2 weeks before any scheduled emissions tests. The analysis results must be submitted to the APCO within 60 days of the emissions test.
C. **EMISSION CONTROL RECORDS:** Any facility complying with the provisions of Section 234.3 A., of this rule through the provisions of Section 234.3 B., of this rule with air pollution control equipment shall maintain applicable records of system operating parameters, including temperatures, pressures, fuel flow rate, and steam production rate, repair, fuel moisture, and all VOC control measures.
D. **REPORTING:** The Air Pollution Control Officer shall be notified within 48 hours of any event or incident that results in a known exceedance of this standard.
E. **RETENTION OF RECORDS:** All records maintained pursuant to this section shall be retained and available for inspection by the APCO or his or her designee for the previous five-year period.

234.5 TEST METHODS AND CALCULATIONS

A. **DETERMINATION OF VOC CONTENT OF EXHAUST STREAM:** The VOC content of the exhaust gas stream subject to the provisions of this determination (rule), excluding exempt compounds, shall be analyzed as prescribed by U.S. EPA Reference Methods 25 or 25A. If Method 25A is utilized, instruments shall be calibrated with propane and VOC concentrations shall be converted to ppmv methane on a carbon equivalence. Emissions found to exceed limits by either method constitute a violation of this rule.

B. **DETERMINATION OF EXEMPT COMPOUNDS:** Measurement of exempt compounds shall be conducted and reported in accordance with EPA Method 18.

C. **DETERMINATION OF TEST METHODS FOR QUANTIFYING CO_2 CORRECTION OF VOC CONCENTRATIONS:** Either ARB Method 100 or EPA Method 3A shall be used for quantifying CO_2 to support correction of VOC concentrations to a standard basis independent of the amount of dilution air in the stack.

EL DORADO COUNTY AIR QUALITY MANAGEMENT DISTRICT

RULE 235 - SURFACE PREPARATION AND CLEANUP
(Adopted: June 27, 1995)

235.1 GENERAL

A. **PURPOSE:** The purpose of this rule is to limit the emission of volatile organic compounds (VOC) from solvent cleaning operations, and from the storage and disposal of materials used in solvent cleaning operations.
B. **APPLICABILITY:** This rule applies to any owner or operator of any facility that uses VOC-containing materials in the production, repair, maintenance, or servicing of parts, products, tools, machinery, equipment, or general work areas or that stores and/or disposes of VOC-containing materials used in solvent cleaning operations.
C. **EXEMPTION, SMALL USER:** The provisions of Section 235.3 A. of this rule shall not apply to facilities that use 10 gallons or less of solvents, as defined in Section 235.2 Z. of this rule in any one calendar year provided that daily use does not exceed one liter.
D. **EXEMPTION, SOLVENT CLEANING OPERATIONS:** Cleaning carried out in batch-loaded cold cleaners, open-top vapor degreasers, conveyorized degreasers, or film cleaning machines which are subject to Rule 225 ORGANIC SOLVENT CLEANING AND DEGREASING OPERATIONS, are not subject to the provisions of Section 235.3 of this rule.
E. **EXEMPTION, DRY CLEANING OPERATIONS:** Dry cleaning operations subject to Rule 218 PERCHLOROETHYLENE DRY CLEANING OPERATIONS, are not subject to the provisions of Section 235.3 of this rule.
F. **EXEMPTION, WIPE CLEANING:** Wipe cleaning is not subject to the provisions of Section 235.3 A. when carried out for any of the applications listed below.
    1. Cleaning of solar cells, laser hardware, and high precision optics.
    2. Cleaning for: conducting performance laboratory tests on coatings, adhesives, or inks; research and development programs; and laboratory tests in quality assurance laboratories.
    3. Cleaning of polycarbonate plastics.
G. **EXEMPTION, AUTOMATED SPRAY EQUIPMENT SYSTEMS:** Internal cleaning of the tips of automated spray equipment systems, except for robotic systems, and cleaning with spray bottles or containers described in Section 235.3 B.2. of this rule, are not subject to the provisions of Section 235.3 E.1. of this rule.
H. **EXEMPTION, AEROSOL PRODUCTS:** Cleaning with aerosol products shall not be subject to the provisions of Sections 235.3 A. and 235.3 E.1. of this rule if 160 fluid ounces or less per day per facility of aerosol products are used.
I. **EXEMPTION, HIGH-PRECISION OPTICS:** Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics shall not be subject to the provisions of Section 235.3 A. of this rule.
J. **EXEMPTION, JANITORIAL CLEANING:** Janitorial cleaning is not subject to the provisions of Section 235.3 of this rule.
K. **EXEMPTION, CURED COATINGS:** The stripping of cured coatings, cured adhesives, and cured inks is not subject to the provisions of Section 235.3 of this rule.
L. **EXEMPTION, PROHIBITORY RULES:** Any process which is regulated by the District under Rule 230 Automotive Refinishing Operations or Rule 237 Wood Products Coatings is not subject to the requirements of this rule.

235.2 DEFINITIONS

A. **AEROSOL PRODUCT:** A hand-held, non-refillable container which expels pressurized product by means of a propellant-induced force.
B. **APPURTENANCES**: Accessories to an architectural structure, including, but not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain-gutters and down-spouts, window screens, lamp-posts, heating and air conditioning equipment, other mechanical equipment, large fixed stationary tools and concrete forms.
C. **CURED COATINGS, CURED INKS, AND CURED ADHESIVES**: Coatings, inks, and adhesives which are

dry to the touch.

D. **ELECTRONIC ASSEMBLY:** All portions of an assembly, including circuit board assemblies, printed wire assemblies, printing wiring boards, soldered joints, ground wires, bus bars, and other electrical fixtures, except for the actual cabinet in which the assembly is housed.

E. **EXEMPT COMPOUNDS:** The following compounds are exempt from the definition of VOC in Section 235.2 HH:

1. Methane
2. Carbon Dioxide
3. Carbon Monoxide
4. Carbonic Acid
5. Metallic Carbides or Carbonates
6. Ammonium Carbonate
7. 1,1,1-Trichloroethane
8. Methylene Chloride
9. Dichlorotrifluoroethane (HCFC-123)
10. 2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
11. Trichlorofluoromethane (CFC-11)
12. Dichlorodifluoromethane (CFC-12)
13. Trichlorotrifluoroethane (CFC-113)
14. Dichlorotetrafluoroethane (CFC-114)
15. Chloropentafluoroethane (CFC-115)
16. Pentafluoroethane (HFC-125)
17. 1,1,2,2-Tetrafluoroethane (HFC-134)
18. Tetrafluoroethane (HFC-134a)
19. Dichlorofluoroethane (HCFC-141b)
20. Chlorodifluoroethane (HCFC-142b)
21. 1,1,1-Trifluoroethane (HFC-143a)
22. Chlorodifluoromethane (HCFC-22)
23. Trifluoromethane (HFC-23)
24. 1,1-Difluoroethane (HFC-152a)
25. Parachlorobenzotrifouride (PCBTF)
26. Volatile cyclic and linear methyl siloxanes (VMS)
27. The following four classes of perfluorocarbon 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.
    d. Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine. Perfluorocarbon compounds shall be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific compounds and the amounts present in the product or process and provides a validated test method which can be used to quantify the identified compounds.

F. **FACILITY**: A business or businesses engaged in solvent cleaning operations which are owned or operated by the same person or persons and are located on the same or contiguous parcels.

G. **FLEXOGRAPHIC PRINTING**: The method in which the image area is raised relative to the non-image area and utilies flexible rubber or other elastomeric plate and rapid drying liquid inks.

H. **GRAMS OF VOC PER LITER OF MATERIAL**: The weight of VOC per volume of material and can be calculated by the following equation:

$$D_{VOC} = (W_S - W_W - W_{ES}) / V_M$$

where:

- D_{VOC} *= Grams of VOC per liter of material*

W_S = *Weight of volatile compounds in grams*

- W_W = *Weight of water in grams*
- W_{ES} = *Weight of exempt compounds in grams*
- V_M = *Volume of material in liters*

A. **GRAPHIC ARTS:** All screen, gravure, letterpress, flexographic, and lithographic printing processes.
B. **GRAVURE PRINTING:** An intaglio process in which the ink is carried in minute etched or engraved wells on a roll or cylinder. The excess ink is removed from the surface by a doctor blade.
C. **JANITORIAL CLEANING:** The cleaning of building or facility components, such as the floor, ceiling, walls, windows, doors, stairs, bathrooms, etc.
D. **LETTERPRESS PRINTING:** The method in which the image area is raised relative to the nonimage area and the ink is transferred to the paper directly from the image surface.
E. **LITHOGRAPHIC PRINTING:** A plane-o-graphic method in which the image and nonimage areas are on the same plane.
F. **LIQUID LEAK:** A visible liquid solvent leak from a container at a rate of more than three (3) drops per minute, or a visible liquid mist.
G. **MAINTENANCE CLEANING:** A solvent cleaning operation carried out to keep parts, products, tools, machinery, equipment excluding application equipment, or general work areas in clean and good operational condition.
H. **MANUFACTURING PROCESS:** The process of making goods or articles by hand or by machinery.
I. **NON-ABSORBENT CONTAINERS:** Containers made of nonporous material which do not allow the migration of the liquid solvent through them.
J. **NON-ATOMIZED SOLVENT FLOW:** The use of a solvent in the form of a liquid stream without atomization to remove uncured adhesives, uncured inks, uncured coatings, and contaminants from an article.
K. **NON-LEAKING CONTAINERS:** Containers without liquid leaks.
L. **PERSON:** Any individual, firm, association, organization, partnership, business, trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local governmental agency or public district or any other officer or employee thereof. PERSON also means the United States or its agencies to the extent authorized by Federal law.
M. **PRINTING:** Any operation in the graphic arts that imparts color, design, alphabet, or numerals on a substrate.
N. **REMOTE RESERVOIR COLD CLEANER:** A cleaning device in which liquid solvent is pumped from a solvent container to a sink-like work area and the solvent from the sink-like area drains into an enclosed solvent container while parts are being cleaned.
O. R**EPAIR CLEANING:** A solvent cleaning operation or activity carried out during a repair process.
P. **REPAIR PROCESS:** The process of returning a damaged object or an object not operating properly to good condition.
Q. **SCREEN PRINTING:** A process in which the printing ink passes through a web or fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint.
R. **SOLVENT:** A VOC-containing liquid used to perform solvent cleaning operations.
S. **SOLVENT CLEANING:** The removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants which include, but are not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas. Each distinct method of cleaning in a cleaning process which consists of a series of cleaning methods shall constitute a separate solvent cleaning operation.
T. **SOLVENT CONTAINER:** That part of a cleaning device that holds the solvent.
U. **SOLVENT FLUSHING:** The use of 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.
V. **STRIPPING:** The removal of cured inks, cured adhesives, and cured coatings.
W. **SURFACE PREPARATION:** The removal of contaminants such as dust, soil, oil, grease, etc., prior to coating, adhesive, or ink applications.
X. **ULTRAVIOLET INKS:** Inks which dry by polymerization reaction induced by ultraviolet radiation.
Y. **VOC COMPOSITE PARTIAL PRESSURE:** The sum of the partial pressures of the compounds defined as VOCs. VOC composite partial pressure is calculated as follows:

where:

- PP_C = *VOC composite partial pressure at 20^{O}C, in mm*
- $HgVP_i$ = *Vapor pressure of the "i"th VOC compound at 20^{O}C, in mm*
- HgW_i = *Weight of the "i"th VOC compound, in grams*
- W_W = *Weight of water, in grams*
- W_E = *Weight of exempt compound, in grams*
- MW_i = *Molecular weight of the "i"th VOC compound, in g/(g-mole)*
- MW_W = *Molecular weight of water, in g/(g-mole)*
- MW_E = *Molecular weight of exempt compound, in g/(g-mole)*

Z. **VOLATILE ORGANIC COMPOUND (VOC):** Any chemical compound containing at least one atom of carbon, excluding exempt compounds.

AA. **WIPE CLEANING:** The method of cleaning a surface by physically rubbing it with a material such as a rag, paper, or a cotton swab moistened with a solvent.

235.3 STANDARDS

A. **SOLVENT REQUIREMENTS:** A person shall not use a solvent to perform solvent cleaning operations, including the use of cleaning devices or methods, unless the solvent complies with the applicable requirements set forth below:

1. On or after January 1, 1996, the solvents used on substrates during the manufacturing process or for surface preparation prior to coating, adhesive, or ink applications shall have a VOC content of 70 grams or less of VOC per liter of material.
2. On and after January 1, 1996, the solvents used for maintenance and repair cleaning shall have a VOC content of 900 grams or less of VOC per liter of material and a VOC composite partial pressure of 20 mm Hg or less at 20^{o}C (68^{o}F).
3. On and after January 1, 1996, the solvents used for cleaning coatings or adhesives application equipment shall have a VOC content of 950 grams or less of VOC per liter of material and a VOC composite partial pressure of 35 mm Hg or less at 20^{o}C (68^{o}F).
4. On and after January 1, 1996, the solvents used for cleaning polyester resin application equipment shall comply with one of the limits specified below:
5. a. The solvent shall have a VOC content of 200 grams or less of VOC per liter of material; or
6. b. The solvent shall have a VOC content of 1100 grams or less of VOC per liter and a VOC composite partial pressure of 1.0 mm Hg or less at 20^{o}C (68^{o}F); or
7. c. A solvent reclamation system shall be used if the solvent exceeds the limits of Sections 235.3 A.4.a. and 235.3 A.4.b., and the solvent usage at the facility exceeds four gallons on any one day. The reclamation system shall operate at least at 80 percent efficiency, on a mass basis. The solvent residues for on-site reclamation systems shall not contain more than 20 percent VOC, by weight.
8. On and after January 1, 1996, the solvent used for cleaning of ink application equipment in graphic arts shall meet the limits specified below:

9. a. The solvents used in screen printing shall have a VOC content of 1070 grams or less of VOC per liter of material and a VOC composite partial pressure of 5 mm Hg or less at 20^{o}C (68^{o}F).
10. b. The solvents used in lithographic and letterpress printing not subject to the provisions of Section 235.3 A.5.d shall have a VOC content of 900 grams or less of VOC per liter of material and a VOC composite partial pressure of 25 mm Hg or less at 20^{o}C (68^{o}F).
11. c. The solvents used in graphic arts printing operations not subject to the provisions of Sections 235.3 A.5.a., 235.3 A.5.b., or 235.3 A.5.d. shall have a VOC content of 100 grams or less of VOC per liter of material and a VOC composite partial pressure of 3 mm Hg or less at 20^{o}C (68^{o}F).
12. d. The solvents used in graphic arts printing operations, except screen printing to remove ultraviolet inks from application equipment, shall have a VOC content of 800 grams or less of VOC per liter of material and a VOC composite partial pressure of 33 mm Hg or less at 20^{o}C (68^{o}F).
13. On and after January 1, 1996, the solvents used for manufacturing or maintenance cleaning of electronic assemblies shall have a VOC content of 900 grams or less of VOC per liter of material and a VOC composite partial pressure of 33 mm Hg or less at 20^{o}C (68^{o}F).

B. **CLEANING DEVICES AND METHODS REQUIREMENTS:** On or after January 1, 1996, a person shall not perform solvent cleaning operations unless one of the following cleaning devices or methods is used:
   1. Wipe cleaning;
   2. Spray bottles or containers with a maximum capacity of 16 fluid ounces from which solvents are applied without a propellant-induced force;
   3. Cleaning equipment which has a solvent container that can be, and is, closed during cleaning operations, except when depositing and removing objects to be cleaned, and is closed during nonoperation with the exception of maintenance and repair to the cleaning equipment itself;
   4. Non-atomized solvent flow method where the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or,
   5. Solvent flushing method where the cleaning solvent is discharged into a container which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

C. **STORAGE AND DISPOSAL:** All VOC-containing materials used in solvent cleaning operations, regardless of their VOC-content, such as solvents, and cloth and paper moistened with solvents, shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times except when filling or emptying.

D. **CONTROL EQUIPMENT:** In lieu of complying with the requirements in Sections 235.3 A., 235.3 B., or 235.3 E.1. of this rule, a person may comply by using collection and control systems in association with the solvent cleaning operation subject to this rule provided:
   1. The collection system collects at least 90 percent, by weight, of the emissions generated by the solvent cleaning operation; and the control system reduces VOC emissions from the emission collection system by at least 95 percent, by weight; or
   2. The collection system collects at least 90 percent, by weight, of the emissions generated by the solvent cleaning operation; and, the output of the control system is less than 50 parts per million weight (ppmw), calculated as carbon with no dilution.

E. **GENERAL PROHIBITIONS:**
   1. On or after January 1, 1996, a person shall not atomize any solvent into open air.
   2. On or after January 1, 1996, a person shall not specify or require any person to use solvent or equipment subject to the provisions of this rule that do not meet the requirements of this rule.

235.4 MONITORING AND RECORDS

A. **RECORDS:** Records shall be maintained pursuant to this Section, for all applications subject to this rule, including those exempted under Sections 235.1 C. through 235.1 L. of this rule, except for cleaning operations performed with a solvent which has a water content of 98 percent or more, by weight, or a VOC composite partial pressure of 0.1 mm Hg or less at 20^{o}C (68^{o}F). Each owner or operator of a facility subject to the provisions of this

rule shall collect and record all information necessary to demonstrate daily compliance with the requirements of Section 235.3 of this rule or with the exemption conditions of Sections 235.1 C. through 235.1 L. of this rule, and shall maintain this information at the facility for a period of five years. The information shall be collected and recorded monthly, and shall be made available to the Air Pollution Control Officer upon request. The information shall include, but not limited to, the following:

1. Identification of each solvent cleaning operation and other process at the facility subject to this rule. The identification shall include location, permit number (if applicable), description of activity, and substrate type;
2. The amount and type of each VOC-containing material used at each operation and process, including exempt compounds. Use of amounts of one pint per week or less may be recorded on a monthly basis;
3. The VOC content of each VOC-containing material;
4. The vapor pressure of each VOC-containing material; and,
5. Any person using an emission control system pursuant to the provisions of Section 235.3 E. as a means of complying with this rule, shall maintain daily records of key system operating and maintenance procedures which will demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities. Key system operating parameters are those necessary to ensure compliance with the requirements of Section 235.3 A.

B. **TEST METHODS:** For the purpose of this rule, the following test methods shall be used. Other test methods determined to be equivalent and approved in writing by the District, Air Resources Board, and the US Environmental Protection Agency may also be used. VOC emissions or other parameters determined to exceed any limits established by this rule through the use of any of the following test methods shall constitute a violation of this rule.

1. The VOC content of materials subject to the provisions of this Rule shall be determined by EPA Reference Test Method 24 (40 CFR 60, Appendix A).
2. The efficiency of the emissions collection system shall be determined by the EPA method described at 40 CFR 52.741(a)(4)(iii).
3. The efficiency of the control device shall be determined by the EPA method described at 40 CFR 52.741(a)(4)(iv). The VOC content measured and calculated as carbon in the control device shall be determined by EPA Reference Test Method 25 or 25A (40 CFR 60, Appendix A).
4. The identity of components in solvents shall be determined by ASTM method E168-67, E169-87, or E260-85; or, by using manufacturer's reported solvent composition, upon approval of the Air Pollution Control Officer.
5. Vapor pressure of a VOC shall be determined by ASTM Test Method D 2879-86 or may be obtained from a published source such as: Boublik, T., V. Freid and E. Hala, *"The Vapor Pressure of Pure Substances"*, Elsevier Scientific Publishing Co., New York (1973), *Perry's Chemical Engineer's Handbook*, McGraw-Hill Book Company (1984), *CRC Handbook of Chemistry and Physics*, Chemical Rubber Publishing Company (1986-87), and *Lange's Handbook of Chemistry*, John A. Dean, editor, McGraw-Hill Book Company (1985).

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 236 ADHESIVES

ADOPTED: July 25, 1995

236.1 GENERAL

A. **PURPOSE:** To limit emissions of volatile organic compounds from the use of commercial and industrial adhesives.

B. **APPLICABILITY:** The rule is applicable to any person who supplies, sells, offers for sale, manufactures, solicits the application of, or uses adhesives and/or adhesive primers. This rule does not apply to household adhesives that are subject to Article 2, Consumer Products, Sections 94507-94517, Title 17, California Code of Regulations.

C. **EXEMPTION, LOW USAGE OF NONCOMPLIANT ADHESIVES:**
   1. The provisions of Sections 236.3 A. and 236.3 B. shall not apply to adhesives, adhesive primers, and adhesive bonding primers with separate formulations that are used in volumes of less than 10 gallons each per facility per year.
   2. The provisions of this rule shall not apply to any facility that uses less than one pint of adhesives in any one day.

D. **EXEMPTION, CONTAINERS:** The provisions of Section 236.3 A. of this rule shall not apply to adhesives which are sold or supplied by the manufacturers or suppliers in the following containers:
   1. Tubes that have a capacity of eight liquid ounces or less; or
   2. Any other container, except aerosol spray cans, that has a capacity of 5 liquid ounces or less.

E. **EXEMPTION, SPECIFIC OPERATIONS AND ADHESIVES:** The requirements of this rule shall not apply to the following:
   1. The provisions of Sections 236.3 A., 236.3 B.1., and 236.3 B.2. shall not apply to the following:
      a. Adhesives used in tire repair; or
      b. Adhesives and/or adhesive application processes in compliance with Rule 231 GRAPHIC ARTS OPERATIONS.
   2. The provisions of Sections 236.3 E. and 236.5 A. shall not be apply to adhesives that contain less than 20 g/l of VOC per liter of adhesives, less water and exempt compounds.
   3. Section 236.3 shall not apply to research and development programs and quality assurance labs, provided that the following records are retained in accordance with Section 236.5 A. of this rule:
      a. The date when the adhesives are used, and the type of application(s).
      b. The amount of adhesives used and the VOC content of such adhesives.
      c. The amount of solvents used and VOC content of such solvents.
   4. Section 236.3 shall not apply to solvent welding operations 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.

F. **EXEMPTION OF AEROSOLS FROM TRANSFER EFFICIENCY REQUIREMENTS:** The provisions of Section 236.3 E. shall not apply to adhesives and primers dispensed from aerosol cans.

236.2 DEFINITIONS

A. **ACRYLONITRILE-BUTADIENE-STYRENE (ABS):** A plastic made by reacting monomers of acrylonitrile, butadiene, and styrene and normally identified with an ABS marking.

B. **ADHESIVE:** Any substance that is used to bond one surface to another surface by attachment.

C. **ADHESIVE BONDING PRIMER:** An adhesive applied to a surface to improve the bond of subsequent adhesives and sometimes to inhibit corrosion.

D. **ADHESIVE PRIMER:** A coating applied to a substrate, prior to the application of an adhesive, to provide a bonding surface.
E. **ADHESIVE PRIMER FOR PLASTIC:** A material applied to a plastic substrate before applying an adhesive in order to obtain better adhesion.
F. **ADHESIVE PROMOTER:** A coating applied to a substrate in a monomolecular thickness to promote wetting and form a chemical bond with the subsequently applied material.
G. **ADHESIVE SOLID:** The nonvolatile portion of an adhesive that remains after heating a sample of the material at 110C for one hour.
H. **AEROSOL ADHESIVE:** A mixture of rubber, resins, and liquid and gaseous solvents and propellants packaged in a disposable container for hand-held application.
I. **AEROSOL SPRAY CAN:** A hand-held, pressurized, non-refillable container which expels adhesives from the container in a finely divided spray when a valve on the container is depressed.
J. **AIR-ASSISTED AIRLESS SPRAY:** Paint spray application system using fluid pressure to atomize the paint and lower air pressure to adjust the shape of the fan pattern.
K. **ANY OTHER PRIMER:** A coating or adhesive applied to a substrate to improve adhesion of subsequently applied adhesive, except adhesive primer and adhesive bonding primer.
L. **CARPET PAD INSTALLATION:** The installation of carpet pad or cushion, used beneath a carpet, onto a floor or comparable surface.
M. **CERAMIC TILE INSTALLATION:** The installation of ceramic tile products.
N. **CERAMIC TILES:** A ceramic surfacing unit made from clay or a mixture of clay and other materials.
O. **CHLORINATED POLYVINYL CHLORIDE (CPVC):** A plastic which is a polymer of the chlorinated polyvinyl monomer that contains 67% chlorine and is normally identified with a CPVC marking.
P. **COATING SOLID:** The nonvolatile portion of a coating that remains after heating a sample of the material at 110C for one hour.
Q. **COMPUTER DISKETTE MANUFACTURING:** The process where the fold-over flaps are glued to the body of a vinyl jacket.
R. **COVE BASE INSTALLATION:** The installation of cove base (or wall base), generally made of vinyl or rubber, onto a wall or vertical surface at floor level.
S. **DRY WALL INSTALLATION:** The installation of gypsum dry wall to studs or solid surfaces.
T. **EXEMPT COMPOUNDS:** The following compounds are exempt from the definition of VOC in Section 236.2 WW.
    1. methane
    2. carbon dioxide
    3. carbon monoxide
    4. carbonic acid
    5. metallic carbides or carbonates
    6. ammonium carbonate
    7. 1,1,1-trichloroethane
    8. methylene chloride
    9. trichlorofluoromethane (CFC-11)
    10. dichlorodifluoromethane (CFC-12)
    11. chlorodifluoromethane (HCFC-22)
    12. trifluoromethane (HFC-23)
    13. trichlorotrifluoroethane (CFC-113)
    14. dichlorotetrafluoroethane (CFC-114)
    15. chloropentafluoroethane (CFC-115)
    16. dichlorotrifluoroethane (HCFC-123)
    17. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
    18. pentafluoroethane (HFC-125)
    19. 1,1,2,2-tetrafluoroethane (HFC-134)
    20. tetrafluoroethane (HFC-134a)
    21. dichlorofluoroethane (HCFC-141b)
    22. chlorodifluoroethane (HCFC-142b)
    23. 1,1,1-trifluoroethane (HFC-143a)

24. 1,1-difluoroethane (HFC-152a)
25. Parachlorobenzotriflouride (PCBTF)
26. Volatile cyclic and linear methyl siloxanes (VMS)
27. The following four classes of perfluorocarbon 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.
    d. Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

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

V. **FIBERGLASS:** Fine filaments of glass.

W. **FOAM:** A rigid or spongy cellular mass with gas bubbles dispersed throughout.

X. **GLUE:** A hard gelatin obtained from hides, tendons, cartilage, bones, etc., of animals. Through general use, the term "glue" is synonymous with the term "adhesive."

Y. **HAND APPLICATION METHODS:** The application of adhesive by manually held equipment. Such equipment includes paint brush, hand roller, trowel, spatula, dauber, rag, sponges, and mechanically- and/or pneumatic-driven syringes without atomization of the materials.

Z. **HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY:** Equipment used to spray a coating by means of a gun that operates between 0.1 and 10 pounds per square inch gauge (psig) air pressure.

AA. **INDOOR CARPET INSTALLATION:** The installation of a carpet that is in an enclosure and is not exposed to ambient weather conditions during normal use.

AB. **LOW-SOLIDS ADHESIVE:** An adhesive which has less than one pound of solids per gallon of material.

AC. **LOW-SOLIDS ADHESIVE PRIMER:** An adhesive primer which has less than one pound of solids per gallon of material.

AD. **OUTDOOR CARPET INSTALLATION:** The installation of carpet that is not in an enclosure and is exposed to ambient weather conditions during normal use.

AE. **PANEL INSTALLATION:** The installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, and similar predecorated or non-decorated panels to studs or solid surfaces.

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

AG. **PLASTIC CEMENT WELDING:** The use of adhesives made of resins and solvents which are used to dissolve the surfaces of plastic, except ABS, CPVC, and PVC plastic, to form a bond between mating surfaces.

AH. **PLASTIC FOAM:** A foam constructed of plastics.

AI. **PLASTICS:** 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.

AJ. **POLYURETHANE FOAMS:** Plastic foams, as defined in "Whittington's Dictionary of Plastics," and may be either rigid or flexible.

AK. **POLYVINYL CHLORIDE (PVC):** Plastic which is a polymer of the chlorinated vinyl monomer that contains 57 percent chlorine and is normally identified with a PVC marking.

AL. **POROUS MATERIAL:** A substance which has tiny openings, often microscopic, in which fluids may be absorbed or discharged.

AM. **PROPELLANT:** A fluid under pressure which expels the contents of a container when a valve is opened.

AN. **ROLL COATER:** A series of mechanical rollers that form a thin coating or adhesive film on the surface roller, which is applied to a substrate by moving the substrate underneath the roller.

AO. **RUBBER FLOORING INSTALLATION:** The installation of flooring material in which both the back and the top surface are made of synthetic rubber, and which may be in sheet or tile form.

AP. **RUBBER FOAM:** A foam constructed of natural or synthetic rubber.

AQ. **SOLVENT WELDING:** The softening of the surfaces of two substrates by wetting them with solvents and/or adhesives, and joining them together with a chemical and/or physical reaction(s) to form a fused union.

AR. **SUBFLOOR INSTALLATION:** The installation of subflooring material over floor joists; and includes the construction of any load bearing joints in joists or trusses.

AS. **THIN METAL LAMINATING:** A process of bonding multiple layers of metal to metal or metal to plastic in the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 mil.

AT. **TIRE REPAIR:** 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.

AU. **VCT:** Vinyl composition tile.

AV. **VISCOSITY:** The property of a fluid or semifluid that enables it to develop and maintain an amount of shearing stress dependent upon the velocity of flow and then to offer continued resistance to flow.

AW. **VOLATILE ORGANIC COMPOUNDS (VOC):** Compounds containing at least one atom of carbon, except for the exempt compounds listed in Section 236.2 T.

AX. **WOOD FLOORING INSTALLATION:** The installation of a wood floor surface, which may be in the form of parquet tiles, planks, or strip-wood.

AY. **WOOD PARQUET FLOORING:** Wood flooring in tile form constructed of smaller pieces of wood which have been joined together in a pattern to form the tile.

AZ. **WOOD PLANK FLOORING:** Solid or laminated wood in plank form.

236.3 STANDARDS

A. **GENERAL ADHESIVE REQUIREMENTS**: Effective January 1, 1996, a person shall not apply adhesives, adhesive bonding primers, adhesive primers, or any other primer which have a VOC content in excess of 250 grams of volatile organic compounds per liter of coating (less water and exempt compounds), or manufacture, blend or repackage such coating for use within the District, unless otherwise specified in Section 236.3 B.

B. **SPECIALTY ADHESIVE REQUIREMENTS:** A person shall not apply adhesives, adhesive bonding primers, adhesive primers, or any other primer which have a VOC content in excess of the limits specified below:
   1. For adhesives, adhesive bonding primers, adhesive primers, or any other primer used in the following welding or installation operations:
   2. For adhesives, adhesive bonding primers, or any other primer not regulated by Section 236.3 B.1. and applied to the following substrates, the following limits shall apply. If an adhesive is used to bond dissimilar substrates together the adhesive with the highest VOC content shall be allowed.

C. For low-solids adhesives and low-solids adhesive primers, the appropriate limits in Sections 236.3 B.1. and 236.3 B.2. shall be expressed in Grams of VOC per Liter of Material.

D. A person shall not apply adhesives from aerosol spray cans unless the VOC content, including the propellant, does not exceed the limits specified below:

	GRAMS OF VOC PER LITER OF ADHESIVE (less water and exempt compounds)	
	EFFECTIVE DATES	
OPERATION	**JANUARY 1, 1996**	**JANUARY 1, 1998**
Non-Vinyl Backed Indoor Carpet Installation	150	
Carpet Pad Installation	150	
Wood Floor Installation	150	
Ceramic Tile Installation	130	
Dry Wall and Panel Installation	200	
Subfloor Installation	200	
Rubber Floor Installation	150	

VCT and Asphalt Tile Installation	150	
PVC Welding	450	250
CPVC Welding	450	250
ABS Welding	350	
Plastic Cement Welding	350	250
Cove Base Installation	150	
Adhesive Primer for Plastic	650	250
Computer Disk Manufacturing	350	

	GRAMS OF VOC PER LITER OF ADHESIVE (less water and exempt compounds)	
	EFFECTIVE DATES	
SUBSTRATE	**JANUARY 1, 1996**	**JANUARY 1, 1998**
Metal to Metal	30	
Plastic Forms	120	
Porous Material (except wood)	120	
Wood	30	
Fiberglass	200	

PERCENTAGE VOC BY WEIGHT	
Effective July 1, 1996	**Effective July 1, 1999**
75%	25%

A. **CONTROL EQUIPMENT REQUIREMENTS:** As an alternative to Sections 236.3 A. and 236.3 B., a person may use collection and control systems in association with the adhesive operations regulated by this rule provided that:
   1. The collection system collects at least 90 percent, by weight, of the emissions generated by the adhesive operations, pursuant to Section 236.5 B.4., and
   2. The control system reduces VOC emissions from the emission collection system by at least 95 percent, by weight, pursuant to Section 236.5 B.3.

B. **STORAGE AND DISPOSAL:** Regardless of their VOC content, all VOC-containing materials used in adhesives application (such as solvents, and cloth and paper moistened with solvents) shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times except when filling or emptying.

C. **APPLICATION EQUIPMENT REQUIREMENTS:** A person or stationary source shall not apply any adhesive unless one, or more, of the following application methods is used:
   1. Hand application,
   2. Dip coat,
   3. Flow coat,
   4. Brush or roll coat,
   5. Electrodeposition,
   6. Electrostatic spray,
   7. High-volume low-pressure (HVLP) spray,
   8. Low-volume low-pressure (LVLP) spray, or
   9. Air-assisted airless spray.

236.4 ADMINISTRATIVE REQUIREMENTS

A. **OPERATION AND MAINTENANCE PLAN:** Any person choosing to use an emissions control device pursuant to Section 236.3 C. must submit an Operation and Maintenance Plan for the emissions control device to the Air Pollution Control Officer for approval. The Plan shall specify operation and maintenance procedures which will demonstrate continuous operation of the emissions control device, pursuant to Section 236.3 C., during periods of emissions-producing operations. The Plan shall also specify which daily records must be kept to document these operation and maintenance procedures. These records shall comply with the requirements of Section 236.5 A. The Plan shall be implemented upon approval by the Air Pollution Control Officer.

B. **PROCEDURE FOR PROCESSING OPERATION AND MAINTENANCE PLAN:**

1. **APPROVAL OF PLAN:** The Air Pollution Control Officer shall determine whether the Operation and Maintenance Plan meets the requirements of Section 236.4 A. not later than 30 days after receipt of the Plan, or within a longer period of time agreed upon by all parties. The Air Pollution Control Officer shall disapprove an Operation and Maintenance Plan if the plan:
    a. Fails to demonstrate continuous operation of the emission control device during periods of emission producing operations, and/or
    b. Does not specify which daily recordkeeping requirements are necessary to document the operation and maintenance procedures set forth in the plan.

    These records, in addition to documenting operation and maintenance procedures, must comply with the recordkeeping requirements of Sections 236.5 A.2. and 236.5 A.3.
2. **REVISION OF PLAN:** If the Air Pollution Control Officer does not approve an Operation and Maintenance Plan, the source shall receive written notice of the deficiency, and shall have an additional 30 days from the date of the notification of the deficiency to correct and resubmit the Operation and Maintenance Plan. The decision of the Air Pollution Control Officer regarding the resubmitted Operation and Maintenance Plan shall be final. Failure to correct the deficiency in an Operation and Maintenance Plan upon resubmittal shall constitute a violation of this rule that is subject to the penalties set forth in Health and Safety Code section 42400 et seq.

C. **COMPLIANCE SCHEDULE:**

1. Operation and Maintenance Plans for emissions control devices installed as of **July 25, 1995**, if not previously submitted, must be submitted by **March 1, 1996** and receive approval by the Air Pollution Control Officer.

D. **CALCULATION FOR DETERMINATION OF VOC CONTENT PER LITER OF ADHESIVE, LESS WATER AND EXEMPT COMPOUNDS:** VOC per liter of adhesive, less water and exempt compounds, is the weight of VOC per combined volume of VOC and adhesive solids (excluding any colorant added to the tint bases). The amount of VOC per liter of adhesive, less water and exempt compounds, shall be calculated using the following equation:

$$(W_v - W_w - W_{ec}) / (V_m - V_w - V_{ec})$$

Where:
W_v = weight of all volatile compounds, in grams.
W_w = weight of water, in grams.
W_{ec} = weight of compounds listed as exempt in Section 236.2 I. from the definition of VOC, in grams.
V_m = volume of coating material, in liters.
V_w = volume of water, in liters.
V_{ec} = volume of compounds listed as exempt in Section 236.2 I., in liters.

E. **CALCULATION FOR DETERMINATION OF VOC CONTENT PER VOLUME OF MATERIAL:** VOC per volume of material (excluding any colorant added to the tine bases) shall be calculated using the following equation:

$$(W_v - W_w - W_{ec}) / (V_m)$$

Where:
W_v = weight of all volatile compounds, in grams.
W_w = weight of water, in grams.
W_{ec} = weight of compounds listed as exempt in Section 236.2 I. from the definition of VOC, in grams.
V_m = volume of material, in liters.

F. **ANNUAL EXEMPTION STATEMENT:** Operations claiming exemption pursuant to Sections 236.1 C., 236.1 E.3., and 236.1 F., shall submit to the Air Pollution Control Officer on an annual basis copies of records retained pursuant to Sections 236.5 A.1. and 236.5 A.2.

236.5 MONITORING AND RECORDS

A. **USAGE RECORDS:** In addition to any existing permit conditions issued pursuant to Rule 501 GENERAL PERMIT REQUIREMENTS, effective **January 1, 1996**, any person subject to this rule, including operations claiming exemption under Sections 236.1 C., 236.1 E.3., and 236.1 F. shall comply with the following requirements:
   1. **LIST OF MATERIALS:** A current list of adhesives in use shall be maintained which includes all of the following items:
      a. The product name/code and type of adhesive.
      b. The VOC content of the adhesive, as determined pursuant to Section 236.5 B.1.
   2. **USAGE AMOUNTS:**
      a. For persons using materials which comply with the standards specified in Sections 236.3 A. and 236.3 B., or using materials pursuant to Sections 236.1 C., 236.1 E.3., 236.1 F. records shall be maintained on a monthly basis, showing the type and volume of adhesives used.
      b. For persons using materials exceeding the VOC limits specified in Sections 236.3 A. and 236.3 B., and using an emission control system pursuant to Section 236.3 C., records shall be maintained on a daily basis, showing the type and volume of adhesives used.
   3. **CONTROL EQUIPMENT:** Any person using an emission control system pursuant to Section 236.3 C. shall maintain such records as required by the Operation and Maintenance Plan in Section 236.4 A. on a daily basis.
   4. **DURATION OF RECORDS:** Such records shall be maintained on-site for a continuous five year period and made available to the Air Pollution Control Officer upon request.

B. **TEST METHODS**
   1. **DETERMINATION OF VOC CONTENT:** VOC content of adhesives shall be determined in accordance with EPA Method 24 and Sections 236.4 E. and 236.5 B.2. of this rule. The VOC content of low-solids adhesives and adhesive primers shall be determined using EPA Method 24, Section 236.5 B.2., and Section 236.4 F.
   2. **DETERMINATION OF COMPOUNDS EXEMPT FROM VOC DEFINITION:** Compounds exempted from the VOC definition, as listed in Section 236.2 T. of this rule, shall be determined in accordance with ASTM D 4457-85 or ARB Method 432. If any of the perfluorocarbons are being claimed as exempt compounds, the person making the claim must state in advance which compounds are present, and the EPA-approved test method used to make the determination of these compounds.
   3. **DETERMINATION OF CONTROL EFFICIENCY:** Control efficiency of the emissions control device shall be determined by using one or more of the following: EPA Method 18, 25, 25A, 2, and/or 2C. EPA Methods 2 and 2C are alternative methods for measurement of flow rate. EPA Methods 25 and 25A are alternative methods for measuring emission concentrations. EPA Method 18 is an alternative to Methods 25 and 25A, but is usually only for quantification of exempt compounds.
   4. **DETERMINATION OF COLLECTION EFFICIENCY:** Collection efficiency of the collection system shall be determined in accordance with EPA's technical document, "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 237 - WOOD PRODUCTS COATINGS

Adopted: June 27, 1995

237.1 GENERAL

A. **PURPOSE:** To limit the emission of volatile organic compounds from wood products coatings operations.
B. **APPLICABILITY:** This rule applies to all sources applying 75.7 liters (20 gallons) or more, per month (singly or in any combination) of coatings, inks, stains, and/or strippers in wood product coating operations for the purpose of manufacture of wood products, including furniture and other coated objects made of solid wood and/or wood composition, and/or simulated wood material.
C. **EXEMPTION - GENERAL:** The provisions of this rule shall not apply to:
    1. Businesses using less than 75.7 liters (20 gallons) per month (singly or in any combination) of wood product coatings and/or strippers.
    2. Noncommercial operations as defined in Section 237.2 X. of this rule.
    3. Wood products coatings that are sold in non-refillable aerosol-spray containers.
    4. Coating operations for the purpose of manufacturing a finished wood panel intended for attachment to the inside walls of buildings, including, but not limited to, homes and office buildings, mobile homes, trailers, prefabricated buildings and similar structures; or a finished exterior wood siding intended for use in construction.
    5. Coating of architectural components or structures, not coated in a shop environment.

237.2 DEFINITIONS

A. **AEROSOL-SPRAY CONTAINER:** Any hand-held, pressurized, non-refillable container of 1 liter (1.1 quarts) or less, where the contents are released when a valve on the container is depressed.
B. **AIR-ASSISTED AIRLESS SPRAY:** Paint spray application system using fluid pressure to atomize the paint and lower air pressure to adjust the shape of the fan pattern.
C. **BINDERS:** Non-volatile polymeric organic materials (resins) which form the surface film in coating applications.
D. **CLEAR TOPCOAT:** A final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film.
E. **CLOSED CONTAINER:** A container which has a cover, and where the cover meets with the main body of the container without any gaps between the cover and the main body of the container.
F. **COATING:** A material which is applied to a surface and which forms a film in order to beautify and/or protect such surface. "Coating" includes, but is not limited to materials such as topcoats, stains, sealers, fillers, multicolored coating, moldseal coating, washcoat, and toner.
G. **CONVERSION VARNISH:** A coating comprised of a homogeneous, transparent or translucent (alkyd-amino resin) liquid which, when acid catalyzed and applied, hardens upon exposure to air or heat, by evaporation and polymerization to form a continuous film that imparts protective or decorative properties to wood surfaces.
H. **DIP COAT:** A coating which is applied by dipping an object into a vat of coating material and allowing any excess coating material to drain off.
I. **ELECTROSTATIC APPLICATION:** The electrical charging of atomized coating droplets for deposition by electrostatic attraction.
J. **ENCLOSED GUN CLEANER:**
    1. A device that is used for the cleaning of spray guns, pots and hoses, that has an enclosed solvent container, is not open to the ambient air when in use, and has a mechanism to force the cleanup material through the gun while the cleaner is in operation; or
    2. A device that is used for the cleaning of spray guns, pots and hoses, that has an enclosed solvent container, uses non-atomized solvent flow to flush the spray equipment and collects and returns the discharged solvent

to the enclosed container.

K. **EXEMPT COMPOUNDS:** The following compounds are exempt from the definition of VOC in Section 237.2 LL:

1. ethane,
2. Carbon dioxide,
3. Carbon monoxide,
4. Carbonic acid,
5. Metallic carbides or carbonates,
6. Ammonium carbonate,
7. 1,1,1-trichloroethane,
8. Methylene chloride,
9. Trichlorofluoromethane (CFC 11),
10. Dichlorodifluoromethane (CFC 12),
11. Chlorodifluoromethane (HCFC 22),
12. Trifluoromethane (CFC 23),
13. Trichlorotrifluoroethane (CFC 113),
14. . Dichlorotetrafluoroethane (CFC 114),
15. Chloropentafluoroethane (CFC 115),
16. Dichlorotrifluoroethane (HCFC-123),
17. Chlorotetrafluoroethane (HCFC-124),
18. Pentafluoroethane (HFC-125),
19. 1,1,2,2-tetrafluoroethane (HFC 134),
20. 1,1,1,2-tetrafluoroethane (HFC 134a),
21. Dichlorofluoroethane (HCFC-141b),
22. Chlorodifluoroethane (HCFC-142b),
23. Trifluoroethane (HFC-143a),
24. Difluoroethane (HFC-152a),
25. Parachlorobenzotriflouride (PCBTF)
26. Volatile cyclic and linear methyl siloxanes (VMS)
27. The following four classes of perfluorocarbon 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.
    d. Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

L. **FILLER:** A preparation used to fill in cracks, grains, etc., of wood before applying a coating.

M. **FLOW COAT:** A coating which is applied by flowing a stream of coating over an object and allowing any excess coating material to drain off.

N. **GRAMS OF VOC PER VOLUME OF COATING LESS WATER AND EXEMPT COMPOUNDS:** The weight of VOC per combined volume of VOC and coating solids, shall be calculated by the following equation:

Where:G_1 = Weight of VOC per volume of coating, less water and exempt compounds.W_v = Weight of volatile compounds, in grams.W_w = Weight of water, in grams.W_{ec} = Weight of exempt compounds, in grams.V_m = Volume of coating material, in liters.V_w = Volume of water, in liters.V_{ec} = Volume of exempt compounds, in liters.

A. **GRAMS OF VOC PER VOLUME OF MATERIAL:** The volume of material is defined as the volume of the original material, plus any VOC-containing material added to the original material. The original material is the material before any VOC-containing material such as solvent is added for purposes of mixing or thinning. The VOC content shall exclude any colorant added to a tint base. The weight of VOC per total volume of material shall be calculated by the following equation:

Where: W_v = Weight of all volatile compounds. W_w = Weight of water. W_{ec} = Weight of exempt compounds, in grams. V_m = Volume of material.

B. **HAND APPLICATION METHODS:** The application of coatings by nonmechanical hand-held equipment, including but not limited to, paint brushes, hand-rollers, trowels, spatulas, rags and sponges.

C. **HIGH-SOLIDS STAIN:** Stains containing more than 454 grams (1 pound) of solids per 3.785 liters (1 gallon), by weight, and including wiping stains, glazes, and opaque stains.

D. **HIGH-VOLUME, LOW-PRESSURE (HVLP):** Spray coating application equipment with air pressure between 0.1 and 10.0 pounds per square inch gauge (psig) and air volume greater than 15.5 cfm per spray gun and which operates at a maximum fluid delivery pressure of 60 psig.

E. **INK:** A fluid that contains dyes and/or colorants and is used to make markings, but not to protect surfaces.

F. **LOW-SOLIDS STAINS:** Stains containing 454 grams (1 pound) of solids per 3.785 liters (1 gallon) or less, by weight.

G. **MOLD-SEAL COATING:** 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.

H. **MULTI-COLORED COATING:** A coating which exhibits more than one color when applied, and which is packaged in a single container and applied in a single coat.

I. **NEW WOOD PRODUCT:** A wood product or simulated wood product which has not been previously coated and from which cured coatings have not been removed. A wood product or simulated wood product from which uncured coatings have been removed to repair flaws in initial coatings applications is a new wood product.

J. **NONCOMMERCIAL OPERATION:** Any business or public agency which is not a major stationary source of emissions as defined in Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, and in which the coating of wood products is clearly incidental to the main business or public agency operation.

K. **PIGMENTED COATINGS:** Opaque coatings which contain binders and colored pigments which are formulated to hide the wood surface, either as an undercoat or topcoat.

L. **RATE PER CALENDAR YEAR:** The amount of coating applied between 12:00 a.m. January 1 and 11:59 p.m. December 31, of the same calendar year.

M. **RATE PER DAY:** The amount of coating applied between 12:00 a.m. and 11:59 p.m. on the same calendar day.

N. **REFINISHING OPERATION:** The steps necessary to remove cured coatings and to repair, preserve, or restore a wood product.

O. **REPAIR COATING:** A coating used to recoat portions of a product which has sustained mechanical damage to the coating following normal coating operations.

P. **ROLL COATER:** A series of mechanical rollers that forms a thin coating film on the surface of the roller, which is applied to a substrate by moving the substrate underneath the roller.

Q. **SEALER:** A coating, containing binders, which seals the wood prior to application of subsequent coatings.

R. **SIMULATED WOOD MATERIALS:** Materials such as plastic, glass, metal, etc., that are made to give a wood-like appearance or are processed like a wood product.

S. **STATIONARY SOURCE:** Any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission.

1. "Building, structure, facility, or installation" includes all pollutant emitting sources activities which:
    a. Belong to the same industrial grouping; and
    b. Are located on one property or two or more contiguous properties; and
    c. Are under the same common ownership, operation, or control, or which are owned or operated by entities which are under common control.
2. Pollutant emitting activities shall be considered as part of the same industrial grouping if:
    a. They belong to the same two-digit standard industrial classification code; or
    b. They are part of a common production process. (Common production process includes industrial processes, manufacturing processes, and any connected processes involving a common material).

T. **STENCIL COATING:** 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.

U. **STRIPPER:** A liquid used to remove cured coatings, cured inks, and/or cured adhesives.

V. **TONER:** A wash coat which contains binders and dyes or pigments to add tint to a coated surface.

W. **TOUCH-UP COATING:** A coating used to cover minor coating imperfections appearing after the main coating operation.

X. **VOLATILE ORGANIC COMPOUND (VOC):** Compounds which contain at least one atom of carbon, except for the compounds listed in Section 237.2 K.

Y. **VOLATILE ORGANIC COMPOUND COMPOSITE PARTIAL VAPOR PRESSURE:** The sum of the partial pressures of compounds defined as VOCs. VOC composite partial vapor pressure for determination of compliance with Section 237.3 D. shall be calculated by the following equation:

Where:PP_c = VOC composite partial pressure at 20^oC, in mm Hg.W_i = Weight of the "i"$_{th}$ VOC compound, in grams.W_w = Weight of water, in grams.W_e = Weight of exempt compounds, in grams.MW_i = Molecular weight of the "i"$_{th}$ VOC compound, in (g/g-mole).MW_W = Molecular weight of water, in (g/g-mole).MW_E = Molecular weight of exempt compound, in (g/g-mole).VP_i = Vapor pressure of the "i"$_{th}$ VOC compound at 20^oC, in mm Hg.

Z. **WASH COAT:** A coating that is used to seal wood surfaces, preventing undesired staining and control penetration. For the purpose of this rule, wash coats shall be considered low-solids coatings and shall contain less than 454 grams (1 pound) of solids per 3.785 liters (1 gallon), by weight. Wash coats with greater than 454 grams (1 pound) of solids per 3.785 liters (1 gallon), by weight, shall be considered sanding sealers.

AA. **WOOD PANEL:** Any piece of wood, wood composition, or simulated wood, which is solid or laminated, and which is larger than 10 square feet in size, and which is not subsequently cut into smaller pieces.

AB. **WOOD PRODUCTS:** Surface-coated products 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.

AC. **WOOD PRODUCT COATING APPLICATION OPERATIONS:** A combination of coating application steps which may include use of spray guns, flash-off areas, spray booths, ovens, conveyors, and/or other equipment operated for the purpose of applying coating materials.

237.3 STANDARDS

A. **APPLICATION EQUIPMENT REQUIREMENTS:** A person or facility shall not apply coatings to wood products subject to the provisions of this rule, unless the coating is applied with properly operating equipment, according to manufacture's specifications, and by use of one, or more, of the following methods:

1. Electrostatic application;
2. Flow coat;
3. Dip coat;
4. HVLP spray;
5. Hand application methods;
6. Roll coater; or,
7. Air-assisted airless spray, for touch-up and repair.

B. **VOC CONTENT OF COATINGS FOR NEW WOOD PRODUCTS**

1. Except as provided in Section 237.1 C., no person or facility shall apply any coating, on a new wood product, which has a volatile organic compound (VOC) content, as applied, exceeding the applicable limits specified below. The VOC content of the coating shall be determined in accordance with Section 237.5 C.1.

	• **VOC LIMITS (GRAMS PER LITER OF COATING)** • **Less Water and Exempt Compounds**

• **COATING**	• **ON AND AFTER 1-31-96**	• **ON AND AFTER 7-1-97**
• Clear Topcoats	• 275 g/L	• 275 g/L
• Conversion Varnish	• 550 g/L	• 550 g/L
• Filler	• 500 g/L	• 275 g/L
• High-Solid Stain	• 550 g/L	• 240 g/L
• Inks	• 500 g/L	• 500 g/L
• Mold-Seal Coating	• 750 g/L	• 750 g/L
• Multi-Colored	• 275 g/L	• 275 g/L
• Pigmented Coating	• 275 g/L	• 275 g/L
• Sealer	• 680 g/L	• 275 g/L

	• **VOC LIMITS (GRAMS PER LITER OF COATING)**	
• **COATING**	• **ON AND AFTER 1-31-96**	• **ON AND AFTER 7-1-97**
• Low Solid Stains, Toners, Washcoats	• 480 g/L	• 120 g/L

2. No person shall supply, sell, solicit, offer for sale for use within the District any wood products coating that exceeds the VOC limits for new wood products set forth in Section 237.3 B.1.
3. In addition, no person shall manufacture, blend, or repackage any wood products coating for use within the District, on new wood products, that exceeds the VOC limits set forth in Section 237.3 B.1.

C. **VOC CONTENT OF COATINGS FOR REFINISHING, REPAIRING, PRESERVING, OR RESTORING WOOD PRODUCTS**

2. Except as provided in Section 237.1 C., no person or facility shall apply any coating, to refinish, repair, preserve, or restore a wood product, which has a volatile organic compound (VOC) content, as applied, exceeding the applicable limits specified below. The VOC content of the coating shall be determined in accordance with Section 237.5 C.1.

	• **VOC LIMITS (GRAMS PER LITER OF COATING)** • **Less Water and Exempt Compounds**
• **COATING**	• **ON AND AFTER 7-1-97**
• Clear Topcoats	• 680 g/L

• Conversion Varnish	• 550 g/L
• Filler	• 500 g/L
• High-Solid Stains	• 700 g/L
• Inks	• 500 g/L
• Mold-Seal Coating	• 750 g/L
• Multi-Colored Coating	• 680 g/L
• Pigment Coating	• 600 g/L
• Sealer	• 680 g/L

	• **VOC LIMITS (GRAMS PER LITER OF COATING)**
• **COATING**	• **ON AND AFTER 7-1-97**
• Low-Solid Stains, Toners,Washcoats	• 480 g/L

2. No person shall supply, sell, solicit, offer for sale for use within the District any wood productscoating for refinishing, repairing, preserving, or restoring wood products that exceeds the VOC limits set forth in Section 237.3 C.1.
3. In addition, no person shall manufacture, blend, or repackage any wood products coating, for use within the District, for refinishing, repairing, preserving, or restoring wood products, that exceeds the VOC limits set forth in Section 237.3 C.1.

D. **VOC CONTENT FOR STRIPPERS:**

2. Except as provided in Section 237.1 C., no person or facility shall apply any stripper which has a volatile organic compound (VOC) content, as applied less water and exempt compounds, of 350 grams/L or more, or has a composite partial vapor pressure of 2 mm Hg (0.04 psia) or more at 20^{o}C (68^{o}F), as calculated pursuant to Section 237.2 MM.
3. No person shall supply, sell, solicit, offer for sale for use within the District, or apply any wood products stripper that exceeds the VOC limits set forth in Section 237.3 D.1.
4. In addition, no person shall manufacture, blend, or repackage any wood products stripper, for use within the District that exceeds the VOC limits set forth in Section 237.3 D.1.

E. **EMISSION CONTROL SYSTEM REQUIREMENTS:** In lieu of the applicable requirements of Sections 237.3 B., 237.3 C., and 237.3 D., emissions of VOC (excluding emissions from cleanup operations) may be controlled by an emission capture and control system which reduces VOC emissions to the atmosphere, provided that the system complies with the following:

2. During any period of operation, the collection and control system shall have a collection efficiency of 90% and a control efficiency of 95% or greater, by weight;
3. 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;
4. During any period of operation of a thermal incinerator, combustion temperature shall be continuously monitored;

5. During any period of operation of a catalytic incinerator, exhaust gas temperature shall be continuously monitored; and,
6. Written approval for the use of such equipment is obtained from the Air Pollution Control Officer, prior to installation or use of the equipment.

F. **REQUIREMENTS FOR SURFACE PREPARATION AND CLEANUP MATERIALS:** Any person using surface preparation and cleanup materials containing VOCs for wood products coating operations shall comply with all of the following requirements:
   2. Closed containers shall be used for the disposal of cloth or paper used for surface preparation, cleanup, and coating removal.
   3. A person shall not use VOC-containing materials for the cleanup of spray equipment used in wood products coating application operations, unless the spray equipment is cleaned in an enclosed system.
   4. VOC-containing materials shall be stored in containers, which are closed when not in use, and shall be disposed of in a manner that the VOCs are not emitted into the atmosphere.
   5. A person shall not perform surface preparation or cleanup with a material containing VOC in excess of 200 grams per liter (1.67 pounds per gallon).

G. **PROHIBITION OF SPECIFICATIONS:** No person shall specify the use in the District of any coating, stripper, or surface preparation and cleanup material, to be applied to any wood products that are subject to the provisions of this rule, that does not meet the limits and requirements of this rule.

237.4 ADMINISTRATIVE REQUIREMENTS

A. **OPERATION AND MAINTENANCE PLAN:**

Any person using an approved emission control device pursuant to Section 237.3 E. as a means of complying with this rule shall submit, with the application for Authority to Construct, pursuant to Rule 501 - GENERAL PERMIT REQUIREMENTS, an Operation and Maintenance Plan for the emission control device to the Air Pollution Control Officer for approval. The Plan shall specify operation and maintenance procedures which will demonstrate continuous operation of the emission control device during periods of emissions-producing operations. The Plan shall also specify which records must be kept to document these operations and maintenance procedures. These records shall comply with the requirements of Section 237.5 A. The Plan shall be implemented upon approval of the Air Pollution Control Officer.

B. **LABELING REQUIREMENTS: VOC CONTENT:**

Each container of any coating subject to this rule and manufactured on or after January 31, 1996 shall display the maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer. VOC content shall be displayed as grams of VOC per liter of coating (less water and exempt solvent, and excluding any colorant added to tint bases). VOC content displayed may be calculated using product formulation data, or may be determined using the test method in Section 237.5 C.1.

237.5 MONITORING AND RECORDS:

A. **USAGE RECORDS:**
   1. Any source within the District that is subject to this rule shall provide all of the data necessary to evaluate compliance including, but not be limited to the following information, as applicable:
      a. A data sheet, material list, or invoice giving material name, manufacturer identification, material application, and VOC content; and
      b. Any catalysts, reducers, or other components used, and the mix ratio; and
      c. The applicable VOC limit from Section 237.3 B.1. or 237.3 C.1., and the actual VOC content of the wood product coating as applied.
      d. For persons using materials which comply with the VOC limits specified in Sections 237.3 B., 237.3 C., and 237.3 D., or using materials pursuant to Sections 237.1 C.1. and 237.1 C.3., records shall be maintained on a daily or monthly basis, showing the type and volume of coatings and solvents used.
      e. For persons using materials exceeding the VOC limits specified in Sections 237.3 B., 237.3 C., and

237.3 D., and using a collection and control system pursuant to Section 237.3 E., records shall be maintained on a daily or monthly basis, showing the type and volume of coatings and solvents used.

2. Any person using an emission control system pursuant to the provisions of Section 237.3 E., as a means of compliance with this rule, shall maintain daily records of key system operating and maintenance procedures which will demonstrate continuous operation and compliance of the emission control device during periods of emission-producing activities. Key system operating parameters are those necessary to ensure compliance with the requirements of Section 237.3 E.

B. **RETENTION OF RECORDS:** All records required by this rule shall be maintained for at least five years, and shall be made available to the Air Pollution Control Officer upon request.

C. **TEST METHODS**

D. **DETERMINATION OF VOC CONTENT:** The VOC content of wood product coatings subject to this rule shall be determined using EPA Reference Method 24.

E. **DETERMINATION OF COMPOUNDS EXEMPT FROM VOC DEFINITION:** Compounds exempted from VOC definition, as listed in Section 237.2 K., shall be determined in accordance with ASTM D-4457-85, or ARB Method 432. If any of the perfluorocarbons are being claimed as exempt compounds, the person making the claim must state in advance which compounds are present, and the EPA-approved test method used to make the determination of these compounds.

F. **DETERMINATION OF COLLECTION EFFICIENCY:** Collection efficiency shall be determined according to EPA's technical document, "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

G. **DETERMINATION OF CONTROL EFFICIENCY:** Efficiency of control equipment shall be determined using EPA Method 25.

RULE 238 GASOLINE TRANSFER AND DISPENSING

INDEX

RULE 238 GASOLINE TRANSFER AND DISPENSING

238.1 GENERAL

A. **APPLICABILITY**: This rule applies to the transfer of gasoline from any tank truck, trailer, or railroad tank car into any stationary storage tank or mobile fueler; and, from any stationary storage tank or mobile fueler into any mobile fueler or motor vehicle fuel tank.

B. **EXEMPTION, AGRICULTURE:** Transfer of gasoline into or from any stationary storage tank or mobile fueler, with a capacity of 550 gallons or less, if 75 percent or more of its monthly throughput is used for the fueling of implements of husbandry, such as vehicles defined in Division 16 (Section 36000, et seq.) of the California Vehicle Code, is exempt from Phase I and Phase II vapor recovery requirements, provided such tank is equipped with a submerged fill tube.

C. **EXEMPTION, TESTING:** Transfer of gasoline to and from testing equipment is exempt from the requirements of this rule when equipment is being used to verify the efficiency of the vapor recovery system by the CARB, the District, or testing contractors; the accuracy of the gasoline dispensing equipment by the Department of Weight and Measures; and, the fire safety standards by the Fire Department.

D. **EXEMPTION, TANK GAUGING AND INSPECTION:** Any tank may be opened for gauging or inspection when loading operations are not in progress, provided that such tank is not pressurized.

238.2 DEFINITIONS

A. **ALTERED FACILITY** is a Gasoline Transfer and Dispensing Facility with any of the following:

1. The removal or addition of storage tank(s), or changes in the number of fueling positions.

2. The replacement of storage tank(s), dispensing nozzle(s) or other equipment with different characteristics or descriptions from those specified on the existing permit.

B. **BACKFILLING** is the covering of the underground storage tank, piping or any associated components with soil, aggregate or other materials prior to laying the finished surface.

C. **BELLOWS-LESS NOZZLE** is any nozzle that incorporates an aspirator or vacuum assist system and a gasoline vapor capture mechanism at the motor vehicle filler neck, such that vapors are collected at the vehicle filler neck without the need for an interfacing flexible bellows.

D. **BREAKAWAY COUPLING** is a component attached to the coaxial hose, which allows the safe separation of the hose from the dispenser or the hose from the nozzle in the event of a forced removal such as in the case of a "driveoff."

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

F. **CLEARLY AND PERMANENTLY MARKED** means an identification of the qualified manufacturer's name, model number, and other required information on a vapor recovery system

component that is legible, and the identification is either directly stamped on or attached to the component using methods or materials that would endure constant long term use.

G. **COAXIAL FILL TUBE** is a submerged fill tube that contains two passages, one within the other. The center passage transfers gasoline liquid to the storage tank and the outer passage carries the gasoline vapors to the tank truck, trailer or railroad tank car.

H. **COAXIAL HOSE** is a hose that contains two passages, one within the other. One of the passages dispenses the liquid gasoline into the vehicle fuel tank while the other passage carries the gasoline vapors from the vehicle fuel tank to the storage tank.

I. **DISPENSER** is a gasoline dispensing unit used for housing the above ground gasoline and vapor recovery piping, the gasoline meters, and to hang gasoline-dispensing nozzles when they are not being used for fueling.

J. **DRY BREAK** or poppetted dry break is a Phase I vapor recovery component that opens only by connection to a mating device to ensure that no gasoline vapors escape from the underground storage tank before the vapor return line is connected and sealed.

K. **DUAL-POINT DESIGN** is a type of Phase I vapor recovery system that delivers gasoline liquid into storage tanks and recovers the displaced vapors through two separate openings on the tank.

L. **FUELING POSITION** is a fuel dispensing unit consisting of nozzle(s) and meter(s) with the capability to deliver only one fuel product at one time

M. **GASOLINE** is any petroleum distillate or petroleum distillate/alcohol blend having a True Vapor Pressure greater than 200 mm Hg (3.9 psi) and less than 760 mm Hg (14.7 psi) at 100 degrees F as determined by ASTM Method D323-89.

N. **GASOLINE TRANSFER AND DISPENSING FACILITY** is a mobile system or a stationary facility, consisting of one or more storage tanks and associated equipment, which receive, store, and dispense gasoline.

O. **GASOLINE VAPORS** are the organic compounds in vapor form displaced during gasoline transfer and dispensing operations, and includes entrained liquid gasoline.

P. **INSERTION INTERLOCK MECHANISM** is any CARB certified mechanism that ensures a tight fit at the nozzle fill pipe interface and prohibits the dispensing of gasoline unless the bellows is compressed.

Q. **LIQUID REMOVAL DEVICE** is a device designed specifically to remove trapped liquid from the vapor passages of a coaxial hose.

R. **LIQUID TIGHT** is a liquid leak rate not exceeding three drops per minute.

S. **MAJOR DEFECT** is a defect in the vapor recovery system or its component, as listed in California Code of Regulations, Title 17, Part III, Chapter 1, Subchapter 8, Section 94006 and as summarized in Attachment A of this rule.

T. **MINOR DEFECT** is a defect in any gasoline transfer and dispensing equipment, which renders the equipment out of good working order, but does not constitute a major defect.

U. **MOBILE FUELER** is any tank truck or trailer that is used to transport and dispense gasoline from an onboard storage tank into any motor vehicle fuel tank.

V. **MOTOR VEHICLE** is any self-propelled vehicle as defined in Section 415 of the California

Vehicle Code.

W. **OWNER/OPERATOR** is any person who owns, leases, or operates a gasoline transfer and dispensing facility.

X. **PRESSURE/VACUUM RELIEF VALVE** is a valve that is installed on the vent pipes of the gasoline storage tanks to relieve pressure and vacuum build-up at preset values of pressure and vacuum.

Y. **QUALIFIED MANUFACTURER** is the original equipment manufacturer of the CARB certified vapor recovery system or component, or a rebuilder who is authorized by CARB to rebuild the designated CARB certified component.

Z. **QUALIFIED REPAIR** is a repair or maintenance of the gasoline transfer and dispensing equipment or vapor recovery system component that would restore the function or performance of such equipment/component following the qualified manufacturer's instructions and using only the applicable CARB certified parts supplied by the qualified manufacturer. Unless otherwise authorized by CARB, a repair or maintenance shall not be considered a qualified repair if the action changes the size, shape or materials of construction of any gasoline vapor passage, or if it may otherwise obstruct, hinder, or reduce the recovery of gasoline vapors during operation.

AA. **REBUILD** is an action that repairs, replaces, or reconstructs any part of a component of a vapor recovery system that forms the gasoline vapor passage of the component, or that comes in contact with the recovered gasoline vapors in the component. Rebuild does not include the replacement of a complete component with another CARB certified complete component; nor does it include the replacement of a spout, bellows, or vapor guard of a CARB certified nozzle. The new part shall be CARB certified and as supplied by the qualified manufacturer specifically for the CARB certified nozzle.

BB. **RETAIL GASOLINE TRANSFER AND DISPENSING FACILITY** is any gasoline transfer and dispensing facility subject to the payment of California sales tax for the sale of gasoline to the public.

CC. **SPILL BOX** is an enclosed container around a Phase I fill pipe that is designed to collect gasoline spillage resulting from disconnection between the liquid gasoline delivery hose and the fill pipe.

DD. **SUBMERGED FILL TUBE** is any storage tank fill tube with the highest level of the discharge opening entirely submerged, when the liquid level is 6 inches above the bottom of the tank.

EE. **VAPOR CHECK VALVE** is a valve that opens and closes the vapor passage to the storage tank to prevent gasoline vapors from escaping when the nozzle is not in use.

FF. **VAPOR RECOVERY SYSTEM** is a system installed at a gasoline transfer and dispensing facility for collection and recovery of gasoline vapors displaced or emitted from the stationary storage tanks or mobile fuelers (Phase I) and during refueling of vehicle fuel tanks (Phase II). A Phase II vapor recovery system may be a balance system, which operates on the principle of vapor displacement, a vacuum-assist system, which uses a mechanical vacuum-producing device to create a vacuum, or an aspirator-assist system, which uses an aspirator or eductor to create a vacuum during gasoline dispensing to capture gasoline vapors.

GG. **VAPOR TIGHT** means the detection of less than 10,000 ppm hydrocarbon concentration, as determined by EPA Method 21, using an appropriate analyzer calibrated with methane.

238.3 STANDARDS

A. **GASOLINE TRANSFER INTO STATIONARY STORAGE TANKS AND MOBILE**

FUELERS (PHASE I): A person shall not transfer, allow the transfer or provide equipment for the transfer of gasoline from any tank truck or trailer into any stationary storage tank with a capacity of 250 gallons or more, or any mobile fueler tank of greater than 120 gallons capacity unless all of the following conditions are met:

1. Such stationary storage tank or mobile fueler tank is equipped with a "CARB certified" submerged fill tube.

2. Such stationary storage tank or mobile fueler tank is equipped with a "CARB certified" vapor recovery system capable of recovering or processing displaced gasoline vapors by at least 95%, or having a minimum volumetric efficiency of 98% and an emission factor not exceeding 0.15 pounds per 1,000 gallons, as applicable. The vapor recovery system shall be maintained and operated according to the manufacturer's specifications and the applicable CARB Executive Orders.

3. All vapor return lines are connected between the tank truck, trailer, or railroad tank car and the stationary storage tank or mobile fueler. In addition, all associated hoses, fittings, and couplings are maintained in a liquid-tight and vapor-tight condition.

4. The hatch on any tank truck, trailer, or mobile fueler shall be equipped with a vapor tight cover during gasoline transfer and pumping. The hatch shall not be opened except for visual inspection, which may be performed after at least three minutes following the completion of the gasoline transfer or pumping. Except otherwise specified by CARB, visual inspection shall be completed in three minutes or less.

5. The fuel delivery lines shall be maintained liquid tight, vapor tight, and free of air ingestion. A fuel delivery that is free of air ingestion is determined by observing the fuel stream as clear and free of air bubbles through the sight windows on the delivery system, except during the initial and final 60 seconds of fuel transferring.

6. The following equipment shall be installed, operated and maintained as specified below:

    a. All fill tubes are equipped with vapor tight caps;

    b. All dry breaks are equipped with vapor tight seals and vapor tight caps;

    c. All CARB certified coaxial fill tubes are spring-loaded and operated so that the vapor passage from the stationary storage tank or the mobile fueler back to the tank truck or trailer is not obstructed;

    d. The fill tube assembly, including fill tube, fittings and gaskets, is maintained to prevent vapor leakage from any portion of the vapor recovery system;

    e. All stationary storage tank or mobile fueler vapor return lines without dry breaks are equipped with vapor tight caps;

    f. Each vapor tight cap is in a closed position except when the fill tube or dry break it serves is actively in use; and,

    g. Each gasoline delivery elbow is equipped with sight windows.

7. When an underground stationary storage tank is installed or replaced at any gasoline transfer and dispensing facility, a "CARB certified" spill box shall be installed. The spill box shall be maintained free of standing liquid, debris and other foreign matter, and be equipped with an integral drain valve or other devices that are certified by CARB to return spilled gasoline to the underground stationary storage tank. The drain valve shall

be maintained closed and free of vapor emissions at all times except when the valve is actively in use.

8. No coaxial Phase I systems certified by CARB prior to January 1, 1994, may be installed on new or modified tanks, except specified otherwise in the applicable CARB Executive Order.

9. All new Phase I systems must be equipped with a CARB-certified anti-rotational coupler or swivel adapter.

B. **GASOLINE TRANSFER INTO VEHICLE FUEL TANKS (PHASE II)**: A person shall not transfer, allow the transfer of, or provide equipment for the transfer of gasoline from a stationary storage tank, with a capacity of 250 gallons or greater, or a mobile fueler, with a capacity of 120 gallons or greater, into any mobile fueler with a capacity of 120 gallons or greater or any motor vehicle fuel tank with a capacity of 5 gallons or greater unless all of the following conditions are met:

1. The dispensing unit used to transfer the gasoline is equipped with a CARB certified vapor recovery system capable of recovering or processing displaced gasoline vapors by at least 95%, or having an emission factor not exceeding 0.38 pounds per 1,000 gallons, as applicable.

2. The vapor recovery system and associated components are operated and maintained in accordance with the manufacturer's specifications and the applicable CARB certification. The system and associated components shall be vapor tight and liquid tight at all times.

3. Equipment subject to this rule is operated and maintained without any major defects.

4. Each balance-system nozzle is equipped with a CARB certified insertion interlock mechanism and a CARB certified vapor check valve located in the nozzle.

5. Each gasoline-dispensing nozzle is equipped with a CARB certified coaxial hose.

6. Unless otherwise specified in the applicable CARB Executive Order, all liquid removal devices installed for any gasoline-dispensing nozzle shall be CARB certified with a minimum liquid removal rate of five milliliters per gallon transferred.

7. The breakaway coupling is CARB certified. Any breakaway coupling that is installed after April 21, 2001, shall be equipped with a poppet valve, which shall close and maintain the gasoline vapor and liquid lines both vapor tight and liquid tight when the coupling is separated. In the event of a separation due to a "driveoff", the owner/operator shall complete one of the following and document the activities pursuant to Section 238.5 G.

   a. Conduct a visual inspection of the effected equipment and perform qualified repairs on any damaged components before placing any effected equipment back in service. In addition, the applicable reverification tests pursuant to Section 238.5 B.1., or equivalent test methods as approved in writing by the APCO and CARB, shall be conducted and successfully passed within 24 hours after the effected equipment is placed back in service; or

   b. Conduct a visual inspection of the effected equipment and replace the effected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or CARB certified rebuilt components, before placing any of the effected equipment back in service.

8. A person shall not install or operate a vapor recovery nozzle unless it is equipped with a coaxial hose.

9. A person shall not install or operate a gasoline dispenser at a gasoline dispensing facility unless the connection between the riser and the dispenser cabinet is constructed from either galvanized piping or flexible tubing that is listed for use with gasoline. The nominal diameter of this connector shall not be less than 1 inch.

10. No person shall install a vacuum assist Phase II vapor recovery system unless it has been certified by CARB to be compatible with ORVR.

11. Liquid retain from any nozzle shall not exceed 100 ml per 1,000 gallons dispensed or the quantity specified in CARB Certification Procedure CP-201, whichever is less.

12. Spitting from any nozzle shall not exceed 1.0 ml per nozzle per test or the quantity specified in CARB Certification Procedure CP-201, whichever is less.

C. **ADDITIONAL REQUIREMENTS**

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

2. For a breakdown (as defined in Rule 101) of a central vapor incineration or processing unit, the provisions of Rule 516 shall apply.

3. A person shall not perform or allow the "pump-out" (bulk transfer) of gasoline from a storage tank subject to Section 238.3 A. unless such bulk transfer is performed using a vapor collection and transfer system capable of returning the displaced vapors to the stationary storage tank.

4. The owner/operator shall conspicuously post the District-required signs specified in Attachment B of this rule in the immediate gasoline dispensing area.

5. For a dispenser that is not to be used to fuel motor vehicles, the owner/operator shall have a sign posted on it stating such, and shall not allow for it to be used to fuel motor vehicles.

6. A person shall not store, or allow the storage of, gasoline in any stationary storage tank with a capacity of 250 gallons or more, or any mobile fueler with a capacity of 120 gallons or more, unless the vent pipe of the tank complies with all of the following:

   a. The vent pipe opening is equipped with a CARB certified pressure/vacuum relief valve.

   b. The vent pipe opening for a stationary storage tank is at least 12 feet above the driveway level used for tank truck filling operations.

   c. Unless otherwise specified in the applicable CARB Executive Order, the pressure/vacuum relief valve for an underground storage tank vent shall be set for pressure relief at 3.0 plus or minus 0.5 inches water column and vacuum

relief at 8.0 plus or minus 2.0 inches water column. The valves for vents on aboveground tanks and mobile fuelers shall meet the specifications in the applicable CARB Executive Order.

d. Effective January 1, 2002, pressure/vacuum relief valves for stationary storage tanks, as supplied and installed, shall be color-coded or otherwise clearly marked to identify the pressure and vacuum settings. The color codes or marks shall be legible to ground-level observers.

e. For the purpose of this requirement, vent pipes of gasoline storage tanks may be manifolded to a single valve, when the stationary storage tanks are manifolded according to the applicable CARB Executive Order.

7. A person shall not store gasoline in open container(s) of any size or handle gasoline in any manner (spillage, spraying, etc.) that allows gasoline liquid or gasoline vapors to enter the atmosphere, contaminate the ground or groundwater, or the enter the sewer system.

8. The failure of an owner/operator to meet any requirements of Section 238.3 of this rule shall constitute a violation. Such non-compliant equipment shall be tagged "Out of Order".

9. Except during active repair activity, the "Out of Order" tag specified in Section 238.3 C.8. shall not be removed and the non-compliant equipment shall not be used, allowed to be used, or provided for use unless all of the following conditions are satisfied:

   a. The non-compliant equipment has been repaired, replaced, or adjusted, as necessary; and,

   b. The non-compliant equipment has been reinspected and/or authorized for use by the APCO or his designee.

10. The owner/operator shall repair or replace any vapor recovery component having minor defects within seven days, pursuant to Section 41960.2(e) of the California Health and Safety Codes.

11. The owner/operator shall have all underground storage tank installation and associated piping configuration inspected by the APCO or his designee prior to backfilling, to verify that all underground equipment is properly installed in accordance with the requirements specified in the applicable CARB Executive Order. The owner/operator shall notify the District by telephone or other District approved method, and obtain a confirmation number at least three business days prior to the backfilling. All piping shall be supported with pea gravel up to the midpoint of the pipe.

12. No later than December 31, 2001, the owner/operator of a gasoline transfer and dispensing facility shall implement a maintenance program and document the program in an operation and maintenance (O&M) manual for the vapor recovery system. The O&M manual shall be kept at the facility and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the facility as well as the District personnel upon request. The O&M manual shall contain detailed instructions that ensure proper operation and maintenance of the vapor recovery system and its components in compliance with all applicable rules and regulations. The manual shall, at a minimum, include the following information:

   a. All applicable CARB Executive Orders, Approval Letters, and District Permits.

b. The manufacturer's specifications and instructions for installation, operation, repair and maintenance required pursuant to CARB Certification Procedure CP-201, and any additional instructions provided by the manufacturer.

c. System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests listed under Section 238.5 I. The owner/operator may include any non-CARB required diagnostic and other tests as part of the testing requirements.

d. Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, CARB Executive Orders and District permit conditions, including replacement schedules for failure or wear prone components.

D. **POSTING OF OPERATING INSTRUCTIONS:** Each gasoline dispensing facility utilizing a Phase II system shall conspicuously post operating instructions specific to the system in use in the gasoline dispensing area. The instructions shall clearly describe how to fuel vehicles correctly with the vapor recovery nozzles utilized at the station. The instructions shall also include a warning that topping off is prohibited, and may result in spillage or recirculation of gasoline.

E. **CONTINGENT VAPOR RECOVERY REQUIREMENT:** Facilities that are equipped with Phase II vapor recovery must also be equipped with Phase I vapor recovery.

F. **REQUIREMENTS FOR NEW OR MODIFIED PHASE II INSTALLATIONS:** Effective as prescribed by California Code of Regulations Title 17, Section 94011, no person shall install or modify a Phase II vapor recovery system unless all new equipment is CARB-certified to meet the following emission limitations without any maintenance being performed on that equipment for 90 days prior to the certification test:

1. The total emission rate for organic compounds from the nozzle/fill pipe interface, storage tank vent pipes, and pressure-related fugitives shall not exceed 0.42 pounds per 1,000 gallons of gasoline dispensed.

2. The emission rate for organic compounds from spillage shall not exceed 0.42 pounds per 1,000 gallons of gasoline dispensed.

3. The emission rate for organic compounds from liquid retain and spitting shall not exceed 0.42 pounds per 1,000 gallons of gasoline dispensed.

G. **HOLD OPEN LATCH REQUIREMENTS:** A person shall not operate a nozzle that dispenses gasoline at a retail gasoline dispensing facility or a gasoline dispensing facility operated by the state or any county, city and county, or city unless the nozzle is equipped with an operating hold open latch. Any hold open latch determined to be inoperative may be repaired or replaced by the owner or operator within 48 hours of notification by the APCO or fire marshal without any fines or penalty action.

238.4 ADMINISTRATIVE REQUIREMENTS

A. **SELF-COMPLIANCE PROGRAM REQUIREMENTS:** The owner/operator of any retail gasoline transfer and dispensing facility shall implement a District-approved self-compliance program as follows:

1. The self-compliance program shall include the following elements:

a. Daily maintenance inspections shall be conducted in accordance with the protocol specified in Attachment C to ensure proper operating conditions of all

components of the vapor recovery systems.

b. Periodic compliance inspections shall be conducted at least once every twelve months and in accordance with the protocol specified in Attachment D to verify the compliance with all applicable District rules and regulations, as well as all permit conditions.

2. Any equipment with major defect(s) which are identified during the daily maintenance inspections or periodic compliance inspections shall be removed from service, repaired, brought into compliance, and duly entered into the repair logs required under Section 238.5 G. before being returned to service.

3. Defects discovered during self-inspection and repaired shall not constitute a violation.

4. Any new self-compliance program or revisions to the existing self-compliance program as specified in Section 238.4 A.1 shall be submitted in writing to the District for approval before implementation.

5. Training and Certification

a. Beginning September 1, 2001, a person shall not conduct daily maintenance inspections specified in Section 238.4 A.1.a. unless such person has satisfactorily completed an appropriate District-approved training program.

b. Beginning September 1, 2001, a person shall not conduct periodic compliance inspections specified in Section 238.4 A.1.b. unless such person has satisfactorily completed an appropriate District-approved training program in the inspection and maintenance of vapor recovery systems.

238.5 MONITORING AND RECORDS

A. **NEW INSTALLATION:** Within 30 calendar days of the initial operation of a new or altered gasoline transfer and dispensing facility, the owner/operator shall conduct and successfully pass the performance tests required by the applicable CARB Executive Orders and District Permit, in accordance with the test methods specified in Section 238.5 I. to verify the proper installation and operation of Phase I and Phase II vapor recovery systems.

B. **REVERIFICATION:** The owner/operator shall conduct and successfully pass the applicable reverification tests in accordance with the test methods specified in Section 238.5 I. to verify the proper operation of the vapor recovery system as follows:

1. Except as specified in the applicable CARB Executive Orders, the reverification tests shall include the following, as applicable:

a. Static pressure (leak decay) test (Phase I and Phase II systems).

b. Air-to-liquid (A/L) ratio test (facility with bellows-less nozzles).

c. Dynamic pressure (back-pressure) test (All Phase II systems).

d. Liquid removal test (systems with a liquid removal device required by CARB Executive Orders).

2. The reverification tests at retail gasoline transfer and dispensing facilities shall be conducted no less frequently than as scheduled below, based on the facility's maximum monthly gasoline throughput during the 12-month period immediately preceding the

required test:

a. The owner/operator of a facility with a maximum monthly throughput of 100,000 gallons or greater shall complete and pass the reverification tests no less frequently than every six months, with the first test being no later than June 1, 2001

b. The owner/operator of a facility with a maximum monthly throughput less than 100,000 gallons shall complete and pass the reverification tests no less frequently than every 12 months, with the first test being no later than August 1, 2001.

3. The owner/operator of a non-retail gasoline transfer and dispensing facility shall complete and pass the reverification tests no less frequently than every 12 months, with the first test being no later than October 1, 2001.

C. **TESTERS:** A person who conducts performance or reverification tests shall comply with all of the following:

1. Conduct performance or reverification tests in accordance with the applicable test methods listed in Section 238.5 I. and other CARB testing procedures. Tests shall be conducted using calibrated equipment meeting the calibration range and calibration intervals specified by the manufacturer.

2. Notify the District by telephone or other District approved methods and obtain a confirmation number at least ten business days prior to testing, except as specified in Section 238.5 D. Notwithstanding, the ten-day notice may not be required for reverification tests conducted after a driveoff pursuant to Section 238.3 B.7.a., provided that the person conducting the tests complies with all other applicable provisions of the rule.

3. Conduct the tests during business hours Monday through Friday, unless written approval to deviate from normal testing hours is received from the APCO in advance of the testing.

4. Submit a copy of the test report in a District approved format to the APCO within 48 hours after each test is conducted. The test report shall include all the required records of tests, test data, a statement whether the system or component tested meets or fails to meet the required standards, and the name and signature of the person responsible for conducting the tests and the company the tester is employed by. The person responsible for conducting the tests shall have completed a District approved class for testing and any subsequent refresher classes as required.

D. **RETESTING:** Notwithstanding Section 238.5 C.2., the owner/operator of a gasoline transfer and dispensing facility that has failed a reverification test or any portion thereof may retest the facility prior to resuming operation provided that the person conducting the tests has complied with one of the following:

1. Notify the District by telephone or other District approved methods and obtain a confirmation number at least 24 hours prior to retesting (at least nine of the hours shall be regular District business hours); or

2. If repairs are performed during the same day the facility failed any reverification tests, the owner/operator may retest the facility on the same day without re-notification, provided that the reasons for the test failure and any repairs performed are documented in the test reports and the repair logs, pursuant to Sections 238.5 G.2. and 238.5 G.3.

E. **PARTIAL CLOSURE:** The owner/operator shall not operate or resume operation of a gasoline transfer and dispensing facility, unless the facility has successfully passed the applicable performance or reverification tests. Notwithstanding the above, when a dispenser, associated with any equipment that has failed a reverification test, is isolated and shut down, the owner/operator may continue operation or resume operation of the remaining equipment at the facility, provided the remaining equipment passed the reverification tests and is unaffected by the shut down equipment. All test results and the method of isolating the defective equipment shall be documented in the test reports to be submitted to the APCO pursuant to Section 238.5 G.3.

F. **THROUGHPUT SUBMISSION:** The owner/operator shall submit the facility's monthly gasoline throughput data to the APCO in conjunction with the reverification test report for each testing and reporting period.

G. **RECORDKEEPING:** A person who performs self-compliance inspections, repairs, or testing at any gasoline transfer and dispensing facility (including, but not limited to, the activities for normal operation and maintenance, performance testing, reverification testing, and those following a driveoff) shall provide to the owner/operator all records listed below, as applicable, at the end of each day when the service is provided. The owner/operator shall maintain all records listed below and any other test results or maintenance records that are required to demonstrate compliance on site for a period of at least five years. Notwithstanding, records for non-retail gasoline dispensing facilities that are unmanned may be kept at other locations approved by the APCO. All records shall be made available to the District personnel upon request both on site during inspections and offsite as specified.

1. Records of all defective components identified or repaired during self-compliance inspections.

2. Repair logs, which shall include:

    a. Date and time of each repair.

    b. The name of the person(s) who performed the repair, and, if applicable, the name, address, and telephone number of the person's employer.

    c. Description of service performed.

    d. Each component that was repaired, serviced, or removed, including the required component identification information pursuant to Section 238.3 C.1.

    e. Each component that was installed as replacement, if applicable, including the required component identification information pursuant to Section 238.3 C.1.

    f. Receipts for parts used in the repair and, if applicable, work orders, which shall include the name and signature of the person responsible for performing the repairs.

3. Records of tests, which shall include:

    a. Date and time of each test.

    b. District confirmation number of each notification.

    c. Name, affiliation, address, and telephone number of the person(s) who performed the test.

    d. Test data and calibration data for all equipment used.

e. Date and time each test is completed and the facility owner/operator is notified of the results. For a test that fails, a description of the reasons for the test failure shall also be included.

f. For a retest following a failed performance or reverification test, description of repairs performed pursuant to Section 238.5 G.2.

g. Copies of test reports in a District approved format.

4. Monthly gasoline throughput records.

H. **BURDEN OF PROOF:** The burden of proof of eligibility for exemption from any section of this rule is on the owner/operator. Anyone seeking an exemption shall maintain records necessary to support such exemption and furnish them to District personnel upon request.

I. **TEST METHODS:** The performance and reverification tests shall be conducted in accordance with the following test methods. All test methods referenced in this section shall be the most recently CARB approved version or as stated in the applicable CARB Executive Orders.

1. The static pressure performance of a Phase I or Phase II vapor recovery system for underground and above ground tanks shall be determined by the CARB Test Procedure TP-201.3 and TP-201.3B, as applicable.

2. The dynamic pressure performance of a Phase II vapor recovery system shall be determined by the CARB Test Procedure TP-201.4.

3. The air-to-liquid volume ratio of a Phase II vapor recovery system shall be determined by the CARB Test Procedure TP-201.5.

4. The liquid removal rate of a Phase II vapor recovery system shall be determined by the CARB Test Procedure TP-201.6.

5. Any other test methods approved by the USEPA, CARB, and the District for underground tanks, aboveground tanks, and mobile fuelers.

Amended:

Rescinded:

ATTACHMENT A

CALIFORNIA CODE OF REGULATIONS, SECTION 94006
SUBCHAPTER 8, CHAPTER 1, PART III OF TITLE 17

94006. Defects Substantially Impairing the Effectiveness of Vapor Recovery Systems Used in Motor Vehicle Fueling Operations.

For the purposes of Section 41960.2 of the Health and Safety Code, the following constitute equipment defects in systems for the control of gasoline vapors resulting from motor vehicle fueling operations which substantially impair the effectiveness of the systems in reducing air contaminants:

a. Absence or disconnection of any component required to be used in the Executive Order(s) that certified the system.
b. A vapor hose which is crimped or flattened such that the vapor passage is blocked, or the pressure drop through the vapor hose exceeds by a factor of two or more the requirements in the system certified in the CARB Executive Order(s) applicable to the system.
c. A nozzle bellows which is torn in one or more of the following manner:
    1. triangular-shaped or similar tear 1/2 inch or more to a side, or hole 1/2 inch or more in diameter or,
    2. Slit 1 inch or more in length.
d. Faceplate or flexible cone which is damaged in the following manner:
    1. For balance nozzles and for nozzles for aspirator and educator-assist type systems, damage shall be such that the capability to achieve a seal with a fill pipe interface is affected for 1/4 of the circumference of the faceplate (accumulated).
    2. For nozzles for vacuum assist-type systems, more than 1/4 of the flexible cone missing.
e. Nozzle shutoff mechanisms which malfunction in any manner.
f. Vapor return lines, including such components as swivels, anti-recirculation valves and underground piping, which malfunction or are blocked, or restricted such that the pressure drop through the lines exceeds by factor of two or more requirements specified in the Executive Order(s) that certified the system.
g. Vapor processing unit which is inoperative.
h. Vacuum producing device which is inoperative.
i. Pressure/vacuum relief valves, vapor check valves, or dry breaks which are inoperative.
j. Any equipment defect which is identified in an Executive Order certifying a system pursuant to the Certification Procedures incorporated in Section 94001 of Title 17, California Code of Regulations, as substantially impairing the effectiveness of the system in reducing air contaminants.

All nozzles affected by the above defects are to be considered defective.

NOTE: Authority Cited: Sections 39600, 39601, 41960.2, Health and Safety Code.

ATTACHMENT B

DISTRICT REQUIRED SIGNS

A. The operator shall post nozzle operating instructions and the following signs:

1. ARB toll-free telephone number:

"If you have nozzle problems, please call the Air District at the toll-free number (800) 952-5588" or equivalent information approved if in writing by the APCO; and

2. A "warning" stating:

"TOXIC RISK - FOR YOUR OWN PROTECTION
DO NOT BREATHE FUMES
DO NOT TOP TANKS"

B. All required signs shall conform to all of the following:

1. For decal signs:
   a. Each sign shall be visible from all fueling positions it serves; and,
   b. Sign shall be readable from a distance of 3 feet.
2. All other signs:
   a. For pump toppers, one double-back sign per island;
   b. For permanent (non-decal) signs, two single-sided or one double-sided sign(s) per two (2) dispensers; and,
   c. Be readable from a distance of at least 6 feet.

ATTACHMENT C

DAILY MAINTENANCE INSPECTION PROTOCOL

The owner/operator of a retail gasoline transfer and dispensing facility shall at minimum verify the following during the daily maintenance inspections:

A. PHASE I VAPOR RECOVERY SYSTEM INSPECTION

1. The spill container is clean and does not contain gasoline. The spill containment drain valve shall be vapor-tight.
2. The fill caps are not missing, damaged or loose.
3. If applicable:
   a. the spring-loaded submerged fill tube seals properly against the coaxial fitting
   b. the dry break (poppet valve) is not missing or damaged.
4. The submerged fill tube is not missing or damaged.

B. PHASE II VAPOR RECOVERY SYSTEM INSPECTION

1. The fueling instructions are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs.
2. The following nozzle components are in place and in good condition, as specified in CARB Executive Orders:
   a. faceplate/facecone; vapor splash guard/fill guard/efficiency compliance device (ECD)/VEG
   b. bellows
   c. latching device spring
   d. vapor check valve
   e. spout (proper diameter/vapor collection holes)
   f. insertion interlock mechanism
   g. automatic shut-off mechanism
   h. hold open latch
3. The hoses are not torn, flattened or crimped.
4. For vacuum-assist systems, the vapor processing unit and burner are functioning properly.

C. RECORDS OF DEFECTIVE COMPONENTS

ATTACHMENT D

PERIODIC COMPLIANCE INSPECTION PROTOCOL

The owner/operator of a retail gasoline transfer and dispensing facility shall at minimum verify the following during the periodic compliance inspections:

A. GENERAL INSPECTION

1. The District permit is current.
2. The equipment and District permit description match.
3. The facility complies with all permit conditions.
4. The required sign is properly posted and the sign contains all the necessary information. (I.e. toll-free compliant phone number, toxic warning sign, etc.)

B. PHASE I VAPOR RECOVERY SYSTEM INSPECTION

1. The spill container is clean and does not contain gasoline.
2. The fill caps are not missing, damaged or loose.
3. If applicable:
   a. the spring-loaded submerged fill tube seals properly against the coaxial fitting
   b. the dry break (poppet valve) is not missing or damaged.
4. The submerged fill tube is not missing or damaged.
5. The distance between the highest level of the discharge opening of the submerged fill tube and the bottom of the stationary storage tank does not exceed six inches (6").
6. The Phase I vapor recovery system complies with required CARB certification and is properly installed.
7. The spill box complies with required CARB certification and is properly installed.
8. The vent pipes are equipped with required pressure/vacuum relief valves.

C. PHASE II VAPOR RECOVERY SYSTEM INSPECTION

1. The fueling instructions are clearly displayed.
2. Each nozzle is the current CARB-certified model.
3. Each nozzle is installed in accordance with the applicable CARB Executive Orders.
4. The following nozzle components are in place and in good condition, as specified in CARB Executive Orders or Attachment A or Health and Safety Code Section 41960.2 (e):
   a. faceplate/facecone; vapor splash guard/fill guard/efficiency compliance device (ECD)
   b. bellows
   c. latching device spring
   d. vapor check valve
   e. spout (proper diameter/vapor collection holes)
   f. insertion interlock mechanism
   g. automatic shut-off mechanism
   h. hold open latch
5. The hoses are not torn, flattened or crimped.
6. The vapor recovery hoses are the required size and length.
7. The hoses with retractors are adjusted to maintain a proper loop, and the bottom of the loop is within the distance from the island surface certified by the CARB Executive Order for that particular dispenser configuration.
8. The vapor recovery nozzles are equipped with required hoses.
9. The bellows-equipped vapor recovery nozzles are equipped with CARB certified insertion interlock mechanisms.
10. If required, the flow limiter is not missing and is installed properly.
11. The swivels are not missing, defective, or leaking, and the dispenser-end swivels, if applicable, are Fire-Marshall approved with 90-degree stops.

12. If required, the liquid removal devices comply with required CARB certifications and are properly installed.
13. For bellows-less nozzles, the hoses are inverted coaxial type except for Hirt systems, and the vapor collection holes are not obstructed.
14. For vacuum-assist systems, the vapor processing unit and burner are functioning properly.
15. For aspirator-assist systems, the major components (i.e. aspirator or jet pump, modulating valve, and vapor check valve) are present inside each dispenser.
16. For aspirator-assist systems with certification-required calibration stickers, the current calibration sticker is present.

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 239 NATURAL GAS-FIRED RESIDENTIAL WATER HEATERS

INDEX

ADOPTED: MARCH 24, 1998

239.1 GENERAL

A. **PURPOSE:** To limit emission of nitrogen oxides (NO_x) from natural gas-fired residential water heaters.

B. **APPLICABILITY:**
   1. GEOGRAPHIC: The provisions of this rule apply to all of El Dorado County.
   2. GENERAL: This rule shall apply to any person who manufactures, distributes, offers for sale, sells, or installs any natural gas-fired residential water heater with a rated heat input capacity less than 75,000 British thermal units per hour (Btu/hr), for use in this District.

C. **EXEMPTION, LARGE NATURAL GAS-FIRED WATER HEATERS:** Water heaters with a rated heat input of 75,000 Btu/hr or greater are exempt from all provisions of this rule.

D. **EXEMPTION, RECREATIONAL VEHICLES:** Natural gas-fired water heaters used exclusively in recreational vehicles are exempt from all provisions of this rule.

E. **EXEMPTION, SWIMMING POOLS AND HOT TUBS:** Natural gas-fired water heaters used exclusively to heat swimming pools and hot tubs are exempt from all provisions of this rule.

F. **EXEMPTION, OTHER FUELS:** Water heaters using any fuel other than natural gas are exempt from all provisions of this rule.

239.2 DEFINITIONS

A. **BRITISH THERMAL UNIT (Btu):** The amount of heat energy required to raise the temperature of one pound of water from 59 ^{o}F to 60 ^{o}F at one atmosphere pressure.

B. **HEAT INPUT:** The actual amount of heat energy released by natural gas burned in a natural gas-fired water heater. It is calculated during certification testing in accordance with the test method referenced in Section 239.5 A.

C. **HEAT OUTPUT:** The amount of heat energy, H_o, in British thermal units (Btu), absorbed by the water being heated during the process of natural gas-fired water heater testing in accordance with the protocol referenced in Section 239.5 A.

D. **MOBILE HOME:** A residential dwelling, designed and manufactured to be movable from site to site as desired by the owner/occupant, and that is not a Recreational Vehicle as defined in Section 239.2 I.

E. **MOBILE HOME WATER HEATER:** A natural gas-fired water heater manufactured exclusively for mobile home use.

F. **NATURAL GAS:** A mixture of gaseous hydrocarbons containing at least 80 percent methane by volume as determined according to American Standard Test Method (ASTM) D1945-64.

G. **NATURAL GAS-FIRED WATER HEATER:** A closed vessel in which water is heated by the combustion of natural gas and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210F (99 ^{o}C).

H. **RATED HEAT INPUT CAPACITY:** The heat input capacity specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the actual heat input capacity as certified by the Manufacturer or Certified technician, shall be considered as the rated heat input capacity.

I. **RECREATIONAL VEHICLE:** A motor home, travel trailer, truck camper, or camping trailer, with or without motive power, designed for human habitation for recreational, emergency, or other occupancy, which meets all of the following criteria:
   1. contains less than 320 square feet of internal living room area, excluding built-in equipment, including, but not limited to wardrobe, closets, cabinets, kitchen units or fixtures, and bath or toilet rooms;
   2. it contains 400 square feet or less of gross area measured at maximum horizontal projections;
   3. it is built on a single chassis; and
   4. it is either self propelled, truck mounted, or permanently towable on the highways without a permit.

J. **SWIMMING POOLS AND HOT TUBS:** Residential only, single-family dwellings, recreational and personal

therapeutic equipment, including in-ground swimming pools, above-ground swimming pools, spas and hot tubs.

239.3 STANDARDS:

A. **NITROGEN OXIDES EMISSION LIMIT:** No person shall distribute, offer for sale, sell, or install any natural gas-fired residential water heater within the District which does not comply with the following:
   1. A natural gas-fired residential water heater that emits less than or equal to 40 nanograms of nitrogen oxides (calculated as NO_2) per joule (93 pounds per billion Btu) of heat output; and is certified in accordance with Section 239.4 B.
   2. A mobile home natural gas-fired water heater that emits less than or equal to 50 nanograms of nitrogen oxides (calculated as NO_2) per joules (116 pounds per billion Btu) of heat output; and is certified in accordance with Section 239.4 B.

239.4 ADMINISTRATIVE REQUIREMENTS:

A. **COMPLIANCE SCHEDULE:** Effective December 1, 1998, no person shall distribute, offer for sale, sell, or install any natural gas-fired residential water heater which does not comply with the requirements of Section 239.3 STANDARDS.

B. **CERTIFICATION REQUIREMENT:**
   1. A manufacturer of any natural gas-fired residential water heater subject to Section 239.3 STANDARDS, shall submit to the Air Pollution Control Officer (APCO) at least 30 days prior to sale, a statement obtained from an independent testing laboratory, certifying that the laboratory tested the unit in accordance with the method in Section 239.5 MONITORING AND RECORDKEEPING of this rule, and that it is in compliance with the provisions of Section 239.3 STANDARDS. The statement shall be signed, dated, and shall attest to the accuracy of all information. The statement shall include the brand name, model number, the heat input capacity rating as it appears on the water heater rating plate, and test results in accordance with Section 239.5 MONITORING AND RECORDKEEPING; or
   2. A manufacturer shall submit to this District an approved South Coast Air Quality Management District certification. Any model of natural gas-fired water heater certified as complying with the South Coast Air Quality Management District's Rule 1121 prior to July 1, 1995, need not be recertified to the test protocol specified in Section 239.5 MONITORING AND RECORDKEEPING until such time as required by the South Coast Air Quality Management District.

C. **MANUFACTURER'S LABELING REQUIREMENT:** A manufacturer shall display the model number of the water heater complying with Section 239.3 STANDARDS on the shipping carton and on the rating plate of each water heater unit. The manufacturer shall also display the certification status on the shipping carton and on the water heater.

D. **CALCULATION FOR DETERMINATION OF HEAT OUTPUT:** The amount of heat energy, H_o, in British thermal units (Btu), absorbed by the water being heated during the process of natural gas-fired water heater testing in accordance with the protocol referenced in Section 239.5 A.. It is calculated using the following equation:

$$\mathbf{H_o = MC_{pi} (T_{del} - T_{in}) + V_{st} D_n C_{p2} (T_{max} - T_o)}$$

- *Where:*
- H_o *= heat output, in Btu*
- *M = mass of the water withdrawn, in pounds*
- C_{pi} *= specific heat of water at the average temperature* $[(T_{del} + T_{in}) / 2]$*, Btu per pound per* ^oF
- T_{del} *= average delivery temperature,* ^oF
- T_{in} *= average inlet temperature,* ^oF
- V_{st} *= storage tank capacity, in gallons, as determined in Section 239.2*
- D_n *= density of water at the average temperature* $[(T_{max} + T_o) / 2]$*, pounds per gallon*
- C_{p2} *= specific heat of water at the average temperature,* $[(T_{max} + T_o) / 2]$*, Btu per pound per* ^oF
- T_{max} *= maximum mean tank temperature recorded after cutout following the test draw,* ^oF

- *T_o = maximum mean tank temperature recorded prior to the test draw, ^oF*

E. **CALCULATION FOR DETERMINATION OF STORAGE TANK CAPACITY:** The capacity of the natural gas-fired water heater in gallons. It is calculated using the following equation:

$$\mathbf{V_{st} = (W_f - W_t) / D_s}$$

- *Where:*
- *V_{st} = storage capacity of the water heater, in gallons*
- *W_f = weight of the water heater completely filled with water, in pounds*
- *W_t = weight of the empty water heater, in pounds*
- *D_s = density of water at the test temperature, in pounds per gallon*

239.5 MONITORING AND RECORDKEEPING

A. **TESTING PROCEDURE:** Any natural gas-fired water heater distributed, offered for sale, sold, or installed within the District shall be tested in accordance with the South Coast Air Quality Management District Protocol: Nitrogen Oxides Emission Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers, January 1995.

B. **DURATION OF RECORDS:** A manufacturer shall keep test reports and certification records for as long as the water heater model is offered for sale or sold in the District, or for three calendar years after manufacture, whichever is longer. These records shall be made available to the Air Pollution Control Officer upon request.

EL DORADO COUNTY

AIR POLLUTION CONTROL DISTRICT

CLEAN AMENDED RULE 244

ORGANIC LIQUID LOADING AND TRANSPORT VESSELS

RULE 244 ORGANIC LIQUID LOADING AND TRANSPORT VESSELS

INDEX

RULE 244 ORGANIC LIQUID LOADING AND TRANSPORT VESSELS

244.1 GENERAL

A. **PURPOSE:** This rule is intended to control emissions of volatile organic compounds (VOC) from facilities that load organic liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car.

B. **APPLICABILITY:** The provisions of this rule shall apply to all organic liquid loading facilities.

C. **EXEMPTION:** Section 244.3 A.5. shall not apply to components found in violation of facility vapor leaks or liquid leaks, if such is detected and recorded originally by the owner or operator, provided the repair or replacement of applicable equipment is completed within the specified period as given in Section 244.5 A.

244.2 DEFINITIONS

A. **BACKGROUND** is the ambient concentration of organic vapors in the air measured according to the EPA Method 21 subsection 4.3.2.

B. **BULK TERMINAL** is a FACILITY as defined below that receives organic liquids or gasoline by pipeline.

C. **FACILITY** is an organic liquid or gasoline loading rack or set of such racks that load organic liquid or gasoline into tank trucks, trailers, or railroad cars, which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person or persons under common control.

D. **FACILITY VAPOR LEAK** is an escape of organic vapors from a source other than a tank truck, trailer or railroad tank car in excess of 3,000 ppm as methane above background when measured according to EPA Method 21. A facility vapor leak source does not include liquid spillage or condensate resulting from "liquid leaks".

E. **GASOLINE** is any petroleum distillate or petroleum distillate/alcohol blend or alcohol, except any liquefied petroleum gas (LPG), which has a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions and is used as a fuel for internal combustion engines.

F. **LIQUID LEAK** is a dripping of liquid organic compounds at a rate in excess of three drops per minute from any single leak source other than the liquid fill line and vapor line of disconnect operations.

G. **LIQUID LEAK FROM DISCONNECT OPERATIONS** is defined as: (a) more than two milliliters of liquid drainage per disconnect from a top loading operation; or (b) more than ten milliliters of liquid drainage per disconnect from a bottom loading operation. Such liquid drainage shall be determined by computing the average drainage from three consecutive disconnects at any one loading arm.

H. **ORGANIC LIQUID** is any liquid compound containing the element carbon that has a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions excluding liquefied petroleum gases (LPG), methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

I. **SUBMERGED FILL LOADING** is a type of organic liquid loading operation where the discharge opening is completely submerged when the liquid level above the bottom of the vessel is eight centimeters (3.2 inches) or higher.

J. **SWITCH LOADING** is a transfer of organic liquids with a vapor pressure of less than 1.5 psia (77.5 mm Hg) under actual loading condition into any tank truck, trailer or railroad tank car that was loaded with an organic liquid with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater immediately preceding the transfer.

K. **TRANSFER EQUIPMENT** shall consist of all the components of the liquid loading line between the liquid pump and the transporting vessel, and the vapor return line from the transporting vessel to the storage tank, or to and including the vapor recovery system.

L. **TRANSPORT VESSEL** is a tank truck, trailer or railroad tank car that is equipped to receive and transport organic liquid.

M. **TRANSPORT VESSEL VAPOR LEAK** is an escape of organic vapors from a transport vessel in excess of 100 percent of the LEL when monitored according to the CARB Vapor Recovery Test Procedure TP-204.3 – Determination of Leak(s).

N. **VAPOR DISPOSAL SYSTEM** is a control equipment designed and operated to reduce VOC emissions into the atmosphere.

O. **VAPOR RECOVERY SYSTEM** is a vapor gathering system which is capable of collecting and returning discharged hydrocarbon vapors and gases during loading of organic liquids into transport vessels, back to a stationary storage container, or into an enclosed process system.

P. **VOLATILE ORGANIC COMPOUND (VOC)** is as defined is Rule 101.

244.3 STANDARDS

A. **GASOLINE LOADING FACILITIES:** Each facility which loads gasoline into a truck tank, trailer, or railroad car shall have a vapor recovery system which meets the following standards:

1. The system is either

   a. a CARB certified vapor recovery and/or disposal system; or;

   b. a District-approved vapor recovery and/or disposal system only when such system does not require CARB certification.

2. Such system shall be designed and operated to recover at least 99 percent of the displaced non-methane vapors or to have a vapor emission rate to the atmosphere

not exceeding 0.08 pounds of non-methane vapor per 1,000 gallons of organic liquid transferred.

3. The pressure in the vapor recovery system shall not exceed 18 inches of water column pressure.

4. The facility shall be designed for bottom loading only.

5. The transfer equipment shall be operated and maintained so that there are no overfills, facility vapor leaks, liquid leaks, or liquid leaks from disconnect operations.

B. **SWITCH LOADING:** Uncontrolled switch loading is prohibited.

C. **TRANSPORT VESSELS**

1. No person shall allow loading or unloading of organic liquid or other use or operation of any transport vessel unless the vessel has a valid certification of vapor integrity as defined by the applicable Air Resources Board Certification and Test Procedures, pursuant to Health and Safety Code Section 41962(g).

2. Transport vessel vapor leaks from dome covers, pressure vacuum vents or other sources shall be determined in accordance with the CARB Vapor Recovery Test Procedure TP-204.3 – Determination of Leak(s).

3. The transport vessel shall be operated so that there are no vapor leaks or liquid leaks.

4. Transport vessels shall not have a pressure exceeding 18 inches water column nor vacuum exceeding 6 inches water column at any time.

5. There shall be no liquid leaks upon disconnect.

D. **NON-GASOLINE LOADING FACILITIES**

1. Each facility shall be equipped and operated for submerged fill loading or bottom fill loading. All gasoline or equivalent vapor pressure organic liquids shall be transferred in this manner.

2. The transfer equipment shall be operated and maintained so that there are no overfills, liquid leaks, or liquid leak from disconnect operations.

244.4 ADMINISTRATIVE REQUIREMENTS

A. **DISTRIBUTION OF RESPONSIBILITIES**

1. The owner and operator of any facility shall be responsible and liable for complying with the provisions of Sections 244.3 A., 244.3 D., 244.4 A., 244.5 A., and 244.5 C., and for maintaining the equipment at the facility in such condition that it can comply with the requirements of this rule if properly operated. If employees of the owner or operator of the facility supervise or affect the transfer operation, the owner or operator of the facility shall be responsible

for ensuring the transfer operation complies with all requirements of this rule and the transfer equipment is properly operated.

2. The owner, operator, and driver of a transport vessel shall be responsible and liable for complying with Sections 244.3 B. and 244.3 C.

244.5 MONITORING AND RECORDS

A. LEAK INSPECTION REQUIREMENTS

1. The owner and operator of any facility shall be required to perform an inspection of the vapor collection system, the vapor disposal system, and each loading rack handling organic liquids, for facility vapor leaks or liquid leaks of volatile organic compounds on one of the following schedules:

   a. monthly if sight, sound, and smell are used as detection methods.

   b. quarterly if an organic vapor analyzer (OVA) is used to monitor for facility vapor leaks.

2. Each detection of a leak shall be repaired or replaced within 72 hours. The repaired or replacement component shall be reinspected the first time the component is in operation after the repair or replacement.

B. COMPLIANCE DETERMINATION/TEST METHODS

1. Compliance with the vapor recovery efficiency as specified in Section 244.3 A.2. shall be determined according to the CARB Vapor Recovery Certification Procedure CP-202 – Certification Procedure for Vapor Recovery Systems of Bulk Plants.

2. Determinations of facility vapor leaks shall be conducted according to EPA Method 21.

3. Any other alternative test method approved in writing by the District, CARB, and EPA may be used only when none of the test methods identified in this subdivision are applicable.

4. When more than one test method or set of test methods are specified for any testing, a violation of any requirements of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

C. RECORDKEEPING

1. The owner and operator of any facility shall maintain a daily log of the throughput and a summary of the throughput for the calendar year to date, of the liquid organic compounds subject to the provisions of this rule.

2. The owner and operator of any facility shall maintain records for verification of compliance with the requirements in Section 244.5 A. The records shall include,

but are not limited to, inspection dates, description of leaks detected, repair/replacement dates, and reinspection dates.

3. All records shall be maintained at the facility for at least five years and shall be available to District staff upon request.

Adopted: **March 27, 2001**

Amended: **September 25, 2001**

Rescinded:

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EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 245 -- VALVES AND FLANGES

(Adopted March 27, 2001)

INDEX

245.1 GENERAL

A. APPLICABILITY, LIQUID LEAKS: The provisions of this rule prohibiting liquid leaks are applicable to all valves and flanges in reactive organic compound service.

B. APPLICABILITY, GASEOUS LEAKS: The provisions of this rule requiring periodic inspection with a portable leak detection device and subsequent repair of valves and flanges in reactive organic compound service are applicable to petroleum refineries, chemical plants, and oil production fields.

C. EXEMPTIONS, GENERAL: The provisions of this rule shall not apply to:

1. Valves or flanges handling only commercial natural gas.

2. All valves or flanges which are located in areas which make inspection infeasible or unsafe for personnel provided that prior concurrence of the APCO has been obtained in writing.

3. Valves or flanges exclusively handling fluids with a reactive organic compound concentration of ten percent or less by weight, or if the liquids' reactive organic compound weight percent evaporated is ten percent or less at 150°C.

4. Oil production field fluid media having an API gravity of 20 or less.

5. Valves or flanges handling liquids or gases with a water content of 80 percent or greater.

D. EXEMPTION, GASEOUS LEAKS: The provision of Section 245.3 B. of this rule shall not apply to:

Valves or flanges incorporated in lines operating under negative pressure.

245.2 DEFINITIONS

A. BACKGROUND is defined as the ambient concentration of reactive organic compounds determined at least three (3) meters upwind from the valve or flange to be inspected.

B. CHEMICAL PLANT is any plant producing inorganic/organic chemicals and/or manufacturing products by inorganic/organic chemical processes.

C. COMMERCIAL NATURAL GAS is a mixture of gaseous hydrocarbons, chiefly methane, of pipeline quality such as that obtained from a company licensed to dispense such gases.

D. FLANGE is defined as a projecting rim on a pipe or piping component used to attach it to another piping detail.

E. GASEOUS LEAK is defined as the detection of organic compounds at a concentration over 10,000 ppm as methane on a carbon equivalency basis.

F. LIQUID LEAK is either the dripping of liquid reactive organic compounds at a rate of more than three drops per minute; or, a visible liquid mist.

G. OIL PRODUCTION FIELD means those properties on which crude petroleum and natural gas production is conducted and as defined in the "Standard Industrial Classification Manual", prepared by the Statistical Policy Division of the Executive Office of the President's Office of Budget and Management,

1972.

H. REACTIVE ORGANIC COMPOUND is a defined in Rule 101.

I. REACTIVE ORGANIC COMPOUND SERVICE is the use of systems or components to process, transport, react, modify, store, or dispense reactive organic compounds.

J. REFINERY is an establishment that processes petroleum into various products and as defined in the "Standard Industrial Classification Manual", prepared by the Statistical Policy Division of the Executive Office of the President's Office of Budget and Management, 1972.

K. VALVE is defined as any device that regulates the flow of fluid in a piping system by means of an external actuator acting to permit or block passage of fluid including the attached flange and the flange seal.

L. WORKING DAY is any day except Saturdays, Sundays, and employee holidays.

245.3 STANDARDS

A. LIQUID LEAK CONTROL: A person shall not use valves or flanges in reactive organic compound service unless such valves and flanges are maintained so that there shall not be a liquid leak.

B. GASEOUS LEAK CONTROL

1. Each owner/operator shall, no later than 90 days after the date of adoption of this rule, submit a management plan detailing the valve inspection schedule for the inspection program to be conducted at the refinery, chemical plant, or oil production field.

2. Each valve or flange in a petroleum refinery, chemical plant, or oil production field handling reactive organic compounds shall be repaired in accordance with Section 245.5 A. Any such valve or flange found to leak shall be repaired in accordance with Section 245.3 C.

3. Each valve located at the end of a pipe or line containing reactive organic compounds, shall be sealed with a blind flange, plug, or cap when not in use, except:

a. A valve on a product sampling line;

b. A safety pressure relief valve; or,

c. A bleeder valve in a double block and bleeder valve system.

4. Each valve found to have a gaseous leak shall be affixed with a record of inspections for the succeeding twelve-month period. Alternative methods of recordkeeping may be used, including the maintenance of records in a centralized location, provided that prior approval of the APCO has been obtained in writing.

5. A leak in more than one valve or flange per day per facility, discovered by District personnel within five days after the scheduled inspection required by Section 245.3 B.1. shall constitute a violation of this rule.

C. REPAIRS

1. Leaks, other than in oil production fields, shall be repaired within two working days of detection.

2. Leaks in oil production fields shall be repaired within five working days of detection.

3. If, after repairs are completed, the detectable gaseous reactive organic compounds are 10,000 ppm or greater when measured at a distance of 1 centimeter from the source, one of the following actions shall be taken:

a. Emergency repairs shall be made to reduce the emission rate to comply; or

b. The emissions from the leak shall be vented into an approved air pollution control device.

4. The persons complying with the provisions of the rule shall be exempt from the provisions of Rule 516 insofar as the provisions of Rule 516 would apply to leaking valves or flanges.

245.4 ADMINISTRATIVE REQUIREMENTS

A. EFFECTIVE DATE: The owner or operator of any valve or flange in reactive organic compound service shall comply with this rule no later than July 1, 2001.

245.5 MONITORING AND RECORDS

A. INSPECTION

1. Valves and flanges handling reactive organic compounds shall be inspected on a quarterly basis with an option to change to annual inspections if operators can document that the facility has been successfully operated and maintained with no liquid or gas leak for five consecutive quarters.

2. Inspections for gaseous leaks shall be conducted with a portable leak detection device or an alternate method having the prior approval of the APCO, in writing.

3. In addition to the quarterly inspection, each valve and/or flange found to leak shall be reinspected after 30 days but before 90 days after repair of such leak. Valves and flanges found to be leaking after the reinspection shall be repaired and reinspected at intervals of one-half the prior interval, except no valve or flange need be inspected more frequently than once per day.

4. Continuous monitoring flammable gas detection devices which send a visual or audible signal when a leak occurs, may, with the written approval of the APCO, be substituted for periodic inspections using leak detection equipment in applicable facilities or parts of facilities.

B. MEASUREMENT REQUIREMENTS

1. Gaseous leaks shall be determined by EPA Method 21 or CARB Method 21. Detection instruments shall be calibrated using a hexane calibration mixture (6ppm methane = 1 ppm hexane on a carbon equivalency basis) or another gas mixture approved in writing by the District for the specific situation.

2. Actual measurement of gaseous leakage rates shall be made at a distance of one centimeter

from the source.

C. RECORDKEEPING: Persons subject to this rule shall comply with all of the following

1. Maintain records of inspections of valves performed pursuant to Section 245.5 A. for five years.

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

B. Annual inspection records for the continuous monitoring equipment described in Section 245.5 A.4. shall not be required, provided that records are maintained for out-of-tolerance conditions as indicated by the monitoring equipment.

2. Make inspection records available for the review by District staff upon request.

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

REGULATION

IV

PERMIT SYSTEM CONDITIONS

4/10/75

RULE 401 Responsibility

The fact that an authorization to construct or modify, or a permit to operate an article, machine, equipment or other contrivance described therein shall have been issued by the Air Pollution Control Officer shall not be an endorsement of such article, machine, or other contrivance neither shall it be deemed or construed to be a warranty, guarantee or representation on the part of the Air Pollution Control Officer that emission standards would not be exceeded by such article, machine, equipment or other contrivance. In every instance the person, firm or corporation to whom such authorization or permit is issued shall be and remain responsible under these regulations for each and every instance wherein emission standards are exceeded by the article, machine, equipment or other contrivance described in the permit, and the fact of issuance or authorization shall not be a defense to or mitigation of any charge of violation.

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 501 GENERAL PERMIT REQUIREMENTS

ADOPTED: April 26, 1994

INDEX

A. POSTING
B. ALTERING OF PERMIT
C. APPLICATIONS
D. ACTION ON APPLICATIONS
E. CONDITIONAL APPROVAL
F. DENIAL OF APPLICATIONS
G. DISCLOSURE
H. EMISSION STATEMENT
I. SUSPENSION
J. CANCELLATION OF APPLICATION
K. CANCELLATION OF PERMIT TO OPERATE
L. TEMPORARY PERMIT
M. APPEALS
N. COMPLIANCE DATES

501.5 MONITORING AND RECORDS

A. TESTING PROCEDURES
B. MONITORING
C. RECORDKEEPING

RULE 501 - GENERAL PERMIT REQUIREMENTS

501.1 GENERAL

A. **PURPOSE:** To provide an orderly procedure for the review of new sources of air pollution and the orderly review of the modification and operation of existing sources through the issuance of permits. Procedures for issuing, modifying, or renewing Title V permits to operate for stationary sources which are subject to Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, shall also be consistent with the procedures specified in that rule.

B. **EXEMPTION, GENERAL:** The exemptions contained in this rule shall not apply to an otherwise exempt piece of equipment which is part of a process that requires a permit. An Authority to Construct and Permit to Operate shall not be required for the equipment listed in Sections 501.1 C. to 501.1 N., unless an emissions unit, is:
   1. Subject to New Source Performance Standards; or
   2. Subject to National Emission Standards for Hazardous Air Pollutants; or
   3. Subject to the requirements of Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM; or
   4. Emits, in levels deemed appropriate for review by the Air Pollution Control Officer (APCO), substances identified as a toxic air contaminant or which are under review pursuant to Health and Safety Code Section 39650 et. seq.; or
   5. The Air Pollution Control Officer makes a determination that the emission unit may not operate in compliance with the District Rules and Regulations; or
   6. An emissions unit or stationary source for which emission reduction credits have been requested or granted in accordance with Rule 524 EMISSION REDUCTION CREDITS.

C. **EXEMPTION, VEHICLES:**
   1. Vehicles used to transport passengers or freight, but not including any article, machine, equipment or other contrivance mounted on such a vehicle that would otherwise require a permit under the provisions of these rules and regulations.
   2. Locomotives, airplanes and watercraft used to transport passengers or freight. This exemption shall not apply to equipment used for dredging of waterways or equipment used in pile driving adjacent to or in waterways.

D. **EXEMPTION, COMBUSTION AND HEAT TRANSFER EQUIPMENT:**
   1. Internal combustion engines with a manufacturer's maximum continuous rating of 50 brake horsepower or

less or gas turbine engines with a maximum heat input rate of 3,000,000 British Thermal Units (Btu) per hour or less at ISO standard day conditions (288 degrees Kelvin, 60 percent relative humidity, and 101.3 kilopascals pressure). The ratings of all engines or turbines used in the same process will be accumulated to determine whether this exemption applies.

2. Any combustion equipment that has a maximum heat input of less than 1,000,000 Btu per hour (gross) and is equipped to be fired exclusively with purchased quality natural gas, liquefied petroleum gas or any combination thereof. The ratings of all combustion equipment used in the same process will be accumulated to determine whether this exemption applies.

E. **EXEMPTION, RESIDENTIAL STRUCTURES:** Equipment utilized exclusively in connection with any structure, when the structure is designed for and used exclusively as a dwelling for not more than four families.

F. **EXEMPTION, AGRICULTURAL OPERATIONS:** Equipment used exclusively in the growing of agricultural crops, or in the commercial raising of fowl or other animals.

G. **EXEMPTION, COOLING SYSTEMS AND VACUUM CLEANING:** Water cooling towers that have a circulation rate of less than 10,000 gallons per minute and which are not used for cooling of process water, water from barometric jets or water from barometric condensers. Refrigeration, air conditioning, ventilating, or vacuum cleaning systems not designed to remove air contaminants generated by equipment which would require a permit under these rules and regulations.

H. **EXEMPTION, PLASTICS AND CERAMICS PROCESSING:** Ovens, kilns, or furnaces fired by electricity used exclusively for the heating, curing, softening, or annealing of plastics or ceramics, and not emitting more than 5 pounds of Volatile Organic Compound (VOC) emissions in any one day. This Section shall not apply to ovens used for heating or curing of fiberglass reinforced plastics.

I. **EXEMPTION, STORAGE AND TRANSFER:** Tanks, reservoirs, vessels or other containers and their associated dispensing, pumping and compression systems used exclusively for the storage of:

1. Liquefied or compressed gases.
2. Unheated organic materials with an initial boiling point of 150 degrees Celsius (302 degrees Fahrenheit) or greater, as determined by the testing procedure specified in Section 501.2, or with an organic vapor pressure of 5 mm Hg (0.1 psia) or less at 20^{o}C, as determined by the testing procedure specified in Section 501.3.
3. Organic liquids with a vapor pressure of 77.5 mm Hg (1.5 psia) or less at 20^{o}C, as determined by the testing procedure specified in Section 501.3, having a capacity of 23,000 liters (6076 gallons or less). Equipment used exclusively for the transfer of organic liquids with a vapor pressure of 77.5 mm Hg (1.5 psia) at 20^{o}C to or from storage.
4. Unheated solvent dispensing containers of 380 liters (100 gallons) capacity or less.

J. **EXEMPTION, SURFACE COATING AND PREPARATION:**

1. Water solution for surface preparation, cleaning, stripping, etching (other than chemical milling) or the electrolytic plating with electrolytic polishing of, or the electrolytic stripping of brass, bronze, cadmium, copper, iron lead, nickel, tin, zinc, and precious metals.
2. Surface coating operations using a combined total of one gallon per day or less of coating material and solvent.
3. Unheated non-conveyorized solvent rinsing containers or unheated non-conveyorized coating dip tanks of 380 liters (100 gallons) capacity or less.

K. **EXEMPTION, FOOD PROCESSING:** The following processing equipment for food or other human consumables and exhaust systems or collectors serving exclusively such equipment:

1. Used in eating establishments for the purpose of preparing food for human consumption.
2. Smokehouses in which the maximum horizontal inside cross sectional area does not exceed 2 square meters (21.5 square feet).
3. Mixers and blenders used in bakeries.
4. Confection cookers.
5. Used exclusively to grind, blend or package tea, cocoa, spices, or roasted coffee.

L. **EXEMPTION, LABORATORY EQUIPMENT:** Laboratory equipment used exclusively for chemical or physical analysis and bench scale tests, including associated vacuum-producing equipment.

M. **EXEMPTION, REPAIRS AND MAINTENANCE:** Repairs or maintenance not involving changes to any equipment for which a permit has been granted under Section 501.3 A., of this rule.

N. **EXEMPTION, OTHER EQUIPMENT:** Unless subject to the requirements of Rule 522 TITLE V - FEDERAL

OPERATING PERMIT PROGRAM, other equipment authorized for exemption by the Air Pollution Control Officer and which would emit less than 2 pounds in any 24 hour period of any pollutants without the benefit of air pollution control devices.

501.2 DEFINITIONS: *Unless otherwise defined below, the terms used in this rule are defined in Rule 523 NEW SOURCE REVIEW; Rule 524 EMISSIONS REDUCTION CREDITS; and Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM.*

A. **ADMINISTRATIVE PERMIT AMENDMENT** - An amendment to a permit to operate which:
   1. Corrects a typographical error; or
   2. Identifies a minor administrative change at the stationary source; for example, a change in the name, address, or phone number of any person identified in the permit; or
   3. Requires more frequent monitoring or reporting by a responsible official of the stationary source; or
   4. Transfers ownership or operational control of a stationary source, provided that, prior to the transfer, the Air Pollution Control Officer receives a written agreement which specifies a date for the transfer of permit responsibility, coverage, and liability from the current to the prospective permittee.

B. **AFFECTED POLLUTANTS** - Reactive organic compounds (ROC), nitrogen oxides (NOx), sulfur oxides (SOx), PM10, carbon monoxide (CO), lead, vinyl chloride, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, and reduced sulfur compounds, or any other pollutant or precursor for which an ambient air quality standard has been established by the U.S. Environmental Protection Agency or the California Air Resources Board.

C. **ANNIVERSARY DATE** - The day and month of issuance of a permit to operate and that same day and month of each succeeding year.

D. **APPLICABLE REQUIREMENTS** - Air quality requirements which a facility must comply pursuant to the District's regulations, codes of California statutory law, the Federal Clean Air Act as amended in 1990 and implementing regulations, other provisions of the United States Code, and the Code of Federal Regulations.

E. **AUTHORITY TO CONSTRUCT** - A preconstruction permit authorizing construction prior to the starting of construction and conforming to the requirements of Rule 523 NEW SOURCE REVIEW, and Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM.

F. **COMMENCE** - As applied to construction, means that the owner or operator has all of the necessary permits or approvals required under State and Federal air quality control laws, District Rules and Regulations, and those air quality control laws and regulations which are part of the California State Implementation Plan, and has:
   1. Begun, or caused to begin, a continuous program of on-site construction of the source, to be completed in a reasonable time; or
   2. Entered into binding agreements or contractual obligations which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

G. **CONTIGUOUS PROPERTY** - Two or more parcels of land with a common boundary or separated solely by a public roadway or other public right-of-way.

H. **EMISSIONS UNIT** - An identifiable operation or piece of process equipment such as an article, machine, or other contrivance which controls, emits, may emit, or results in the emissions of any affected air pollutant, regulated air pollutant or Hazardous Air Pollutant (HAP), directly or as fugitive emissions. An emissions unit shall not include the open burning of agricultural biomass.

I. **RESPONSIBLE OFFICIAL** - An individual with the authority to certify that a source complies with all applicable requirements, including the conditions of permits issued to sources in accordance with Regulation V PERMITS TO OPERATE. A "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, or 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 permit and either:
      a. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or
      b. The delegation of authority to such representative is approved in advance by the Air Pollution

Control Officer;
2. For a partnership or sole proprietorship, a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency, either a principal executive officer or a ranking elected official; or
4. For an acid rain unit subject to Title IV (Acid Deposition Control) of the Clean Air Act, the "responsible official" is the designated representative of that unit for any purposes under Title IV and Rule 522 TITLE V - FEDERAL OPERATING PERMITS PROGRAM.

J. **STARTUP** - means the setting in operation of a stationary source or emission unit for any purpose.

K. **STATIONARY SOURCE (SOURCE OR FACILITY)** - Any building, structure, facility, or emissions unit which emits or may emit any affected pollutant directly or as fugitive emissions.
1. Building, structure, facility, or emissions unit includes all pollutant emitting activities which:
   a. belong to the same industrial grouping; and
   b. are located on one property or on two or more contiguous properties; 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.
2. Pollutant emitting activities shall be considered as part of the same industrial grouping if:
   a. they belong to the same two-digit standard industrial classification code under the system described in the 1987 Standard Industrial Classification Manual; or
   b. they are part of a common production process. (Common production process includes industrial processes, manufacturing processes and any connected processes involving a common material.)
3. The emissions within District boundaries of cargo carriers associated with the stationary source shall be considered emissions from the stationary source to the extent that emission reductions from cargo carriers are proposed as offsets.

L. **TITLE V PERMITS** - A permit issued, denied, renewed, amended, or reopened pursuant to Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, and the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.), and Part 70 Code of Federal Regulations, "State Operating Permit Programs".

501.3 STANDARDS

A. **AUTHORITY TO CONSTRUCT:** Any person building, erecting, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain authorization for such construction from the Air Pollution Control Officer (APCO) as specified in Section 501.4 C., of this rule. An authority to construct shall remain in effect until a permit to operate the equipment is granted or denied or the application is cancelled. With the exception of Authority to Construct permit(s) for stationary sources or equipment units subject to the requirements of Title V of the Federal Clean Air Act as amended in 1990, and pursuant to Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, the emissions unit(s) shall not commence operation until the Air Pollution Control Officer takes final action to approve the permit. A stationary source or emission unit subject to Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, requirements may commence operation subject to the limitations and restrictions of Rule 522 upon such operation.
1. An authority to construct, unless extended or application for a Title V operating permit is submitted, shall expire no later than one year following the construction completion date given by the applicant, or no later than two years following the date of permit issuance, whichever occurs first.
2. If a written request to extend the authority to construct is received by the Air Pollution Control Officer prior to the expiration of the authority to construct, an extension may be granted for up to two years if the Air Pollution Control Officer determines that:
   1. (1) commencement of construction has occurred, and a good faith effort to complete the project has been made; and
   2. (2) the parameters of the project remain the same as in the initial application.
3. The Air Pollution Control Officer shall be notified of the anticipated date of initial startup or operation of any permitted article, machine, equipment or other contrivance. Such notice shall be made no less than 30 days prior to the startup date.
4. The Air Pollution Control Officer shall be notified of the actual date of initial startup within 5 days after such date.

B. **PERMIT TO OPERATE:** Any person operating an article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain a written permit from the Air Pollution Control Officer. Stationary sources subject to the requirements of Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, must also obtain a Title V permit pursuant to the requirements and procedures of that rule.

C. **STANDARDS FOR GRANTING APPLICATIONS:**

1. The Air Pollution Control Officer shall deny an authority to construct or permit to operate, except as provided in Rule 523 NEW SOURCE REVIEW, if the applicant does not show that every article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, is so designed, controlled, equipped, and operated with such air pollution control equipment that it may be shown to operate without emitting or without causing to be emitted air contaminants in violation of these rules and regulations or of such state or federal statutes as may be enforceable by the Air Pollution Control Officer on the date the application is deemed complete. Permits to operate, and permit amendments, for sources subject to the requirements of Title V of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.), and Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, must comply with all applicable federal requirements. In addition, the Air Pollution Control Officer shall require the applicant, as a condition of the authority to construct, to comply with the requirements of California Health and Safety Code Part 6, (Section 44300 et. seq.), Air Toxics "Hot Spots" Information and Assessment Act.
2. No permit to operate shall be granted, either by the Air Pollution Control Officer or the Hearing Board, for any article, machine, equipment or contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, which has been constructed or installed without authorization as required by Section 501.3 A., of this rule, until:
    a. The information necessary to enable the Air Pollution Control Officer to make the determination required by Section 501.3 C., of this rule, Rule 523 NEW SOURCE REVIEW, and Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, for those sources subject to that rule, is presented to the Air Pollution Control Officer; and
    b. Such article, machine, equipment or contrivance, is altered, if necessary, and made to conform to the standards set forth in Section 501.3 C., of this rule, elsewhere in these rules and regulations, and in the California Health and Safety Code.
3. In acting upon a permit to operate, if the Air Pollution Control Officer finds that the 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, has not been constructed in accordance with the authority to construct, he or she shall deny the permit to operate. The Air Pollution Control Officer shall not accept any further application for a permit to operate the article, machine, equipment, or other contrivance so constructed until he or she finds that the article, machine, equipment or other contrivance has been reconstructed in accordance with the authority to construct.
4. The Air Pollution Control Officer shall require enforceable emission limitations as permit conditions in authorities to construct and permits to operate to assure the permanence of surplus actual emissions reductions applied for use as internal reductions or emission reduction credits in accordance with Rule 523, NEW SOURCE REVIEW; Rule 524, EMISSION REDUCTION CREDITS; and Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM.
5. The Air Pollution Control Officer shall determine that an applicant for a permit to construct or modify a potential source of air contaminants located within 1,000 feet from the outer boundary of a school has complied with the applicable requirements of California Health and Safety Code Section 42301.6, preparation and distribution of a public notice, prior to approving an application for an authority to construct permit.
6. Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable requirements, including applicable provisions of the California State Implementation Plan, District Rules and Regulations, or State or Federal law.
7. No permit to operate shall be issued, modified, or renewed for stationary sources which are subject to Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, unless the permit contains conditions consistent with those specified in that rule.

D. **PROVISION OF SAMPLING AND TESTING FACILITIES:** In addition to the monitoring and testing

required to comply with State or Federal laws or regulations, the Air Pollution Control Officer may, upon reasonable written notice or before an authority to construct or permit to operate is granted, require the applicant or the owner or operator of 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, reduce, or control the issuance of air contaminants to:

1. 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 equipment in question. In the event of such a requirement, the Air Pollution 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; the access to the sampling platform; and the utilities for operating the sampling, testing, and air monitoring equipment. Such platform and access shall be constructed in accordance with the applicable General Industry Safety Orders of the State of California.
2. Provide and maintain sampling and monitoring apparatus to measure emissions of air contaminants when the Air Pollution Control Officer has determined that such apparatus is available and should be installed.
    a. Continuous emission monitoring systems as a minimum shall be installed when required, and to the performance specifications required, by Section 501.5 B., of this rule.
    b. A violation of emission standards of these rules, as shown by the stack-monitoring system, shall be reported by the owner or operator to the Air Pollution Control Officer within 96 hours, or such earlier time as may be required by Rule 516, UPSET AND BREAKDOWN CONDITIONS
    c. In the event of a breakdown of monitoring equipment, the owner or operator shall notify the Air Pollution Control Officer within 48 hours and shall initiate repairs. The owner or operator shall inform the Air Pollution Control Officer of the intent to shutdown any monitoring equipment at least 24 hours prior to the event.
    d. Compliance with Subsection (b) and (c), above, does not exempt the owner or operator from applicable provisions of Rule 516 UPSET AND BREAKDOWN CONDITIONS, the emergency provisions of Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, pursuant to 40 CFR 70.6(g), or the separate reporting requirements of other federal regulations to which the stationary source or emissions unit is subject.
3. If the Air Pollution Control Officer determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of a numerical emission standard infeasible, the Air Pollution Control Officer may instead prescribe a design, operational, or equipment standard. In such cases, the Air Pollution Control Officer may require the installation or modification of process monitoring devices such that the design characteristics or equipment will be properly maintained, or that the operational conditions will be properly performed, so as to continuously achieve the assumed degree of control. To the extent applicable, reporting requirements for process monitors shall be the same as for continuous emission monitoring systems.
4. A person operating or using a stack monitoring system shall, upon written notice from the Air Pollution Control Officer, provide a summary of the data obtained from such systems. This summary of the data shall be in the form and manner prescribed by the Air Pollution Control Officer. The summary of data shall be available for public inspection at the office of the Air Pollution Control District. Records from the monitoring equipment shall be kept by the owner or operator for a period of two years, during which time they shall be available to the Air Pollution Control Officer in such form as he or she directs.
5. The responsible official of a source using a stack monitoring system and subject to Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, shall in addition to the requirements of Section 501.3 D.4., above, submit data summaries and retain monitoring records in accordance with the applicable federal requirements of that rule.

E. **TRANSFER:** 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, from one piece of equipment to another, or from one person to another. In the event any person contemplates or desires to make any such transfer as herein above described, said person shall make an application for authorization in accordance with Section 501.4 C., of this rule.

F. **PERMIT RENEWAL:** Except for Title V permits, which shall be renewed in accordance with Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, every permit to operate, except as specified below, shall be renewable annually on the permit's anniversary date, commencing one year after the date of issuance.

5. Action to suspend or revoke the permit has been initiated and such action has resulted in a final

determination to suspend or revoke the permit by the Air Pollution Control Officer or the Hearing Board and all appeals, or time for appeals, has been exhausted.

6. Fees applicable to the renewal of the permit(s) to operate have not been paid, as specified in Regulation VI, FEES.
7. The Air Pollution Control Officer shall review every permit to operate upon annual renewal, pursuant to Health and Safety Code Section 42301(c), to determine that permit conditions are adequate to ensure compliance with, and the enforceability of, District Rules and Regulations applicable to the article, machine, equipment, or contrivance for which the permit was issued. Applicable District Rules and Regulations shall include those which were in effect at the time the permit was issued or modified, or which have subsequently been adopted and made retroactively applicable to an existing article, machine, equipment, or contrivance, by the District Air Pollution Control Board. During this annual review the Air Pollution Control Officer shall reopen the permit if cause for reopening is discovered for a permit to operate issued pursuant to Rule 522 TITLE V - FEDERAL OPERATING PERMITS PROGRAM. The Air Pollution Control Officer shall revise the conditions, if such conditions are not consistent, in accordance with all applicable District Rules and Regulations.
8. The Air Pollution Control Officer may establish an annual permit renewal date for all permits to operate held by a stationary source. Thereafter, permits to operate shall be renewable that same day and month of each succeeding year, subject to any other requirements of these Rules and Regulations and of state law, regarding validity, voiding or revocation of permits.

G. **PERFORMANCE TESTING:** Within 60 days after achieving the maximum production rate or the maximum rate of emissions to which the source is limited by enforceable conditions, but not later than 180 days after initial startup of such source, or as otherwise required by the Air Pollution Control Officer to determine continuous compliance with emission limitations or to confirm emission reductions claimed, the owner or operator of such source shall conduct performance test(s) in accordance with methods and under operating conditions as are approved by the Air Pollution Control Officer and furnish the Air Pollution Control Officer a written report of the results of such performance test(s).

1. Such test(s) shall be at the expense of the owner or operator.
2. Testing shall be conducted with the source(s) of emissions operating at maximum capacity or other rate conforming to the maximum rate of emissions to which the source(s) are limited by enforceable condition(s).
3. The Air Pollution Control Officer may monitor such test and may also conduct performance tests.
4. The owner or operator of a source shall provide the Air Pollution Control Officer 15 days prior notice of the performance test to afford the Air Pollution Control Officer the opportunity to have an observer present.
5. The Air Pollution Control Officer may waive the requirement for performance tests if the owner or operator of a source has demonstrated by other means to the Air Pollution Control Officer's satisfaction that the source is being operated in compliance with all local, State and Federal regulations which are part of the California State Implementation Plan.

501.4 ADMINISTRATIVE REQUIREMENTS

A. **POSTING:** A person who has been granted a permit to operate any article, machine, equipment, or other contrivance described in Section 501.3 B., of this rule shall maintain a legible copy of said permit on the premises of the subject equipment. Other information, analysis, plans or specifications which disclose the nature, extent, quantity, or degree of air contaminants which are or may be discharged from such source shall be readily available for inspection by the Air Pollution Control Officer.

B. **ALTERING OF PERMIT:** A person shall not willfully deface, alter, forge, counterfeit, or falsify a permit to operate any article, machine, equipment, or other contrivance described in Section 501.3 B., of this rule. A permit amendment or revision requested by the owner or operator, other than an administrative permit amendment or an amendment pursuant to Subsection 501.3 F.3., shall require the filing of an application. For an administrative permit amendment, a responsible official may implement the change addressed in the written request immediately upon submittal of the request. The Air Pollution Control Officer shall take final action no later than 60 days after receiving the written request for an administrative permit amendment.

1. After designating the permit revisions as an administrative permit amendment, the Air Pollution Control Officer may revise the permit without providing notice to the public or any affected state.

2. The Air Pollution Control Officer shall provide a copy of the revised permit to the responsible official and for Title V permits to the U.S. Environmental Protection Agency.
3. While the Air Pollution Control Officer need not make a completeness determination on a written request, the Air Pollution Control Officer shall notify the responsible official if the Air Pollution Control Officer determines that the permit can not be revised as an administrative permit amendment.

C. **APPLICATIONS:** An application for an authority to construct, permit to operate, change of ownership, or an application for a permit amendment, permit reopening, or revision shall be filed in the manner and form prescribed by the Air Pollution Control Officer, and shall give all the information necessary to enable the Air Pollution Control Officer to make the determinations required by Section 501.3 C., of this rule, Rule 523, NEW SOURCE REVIEW; Rule 524, EMISSION REDUCTION CREDITS; and Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM.
1. A responsible official representing the owner or operator shall certify the truth, accuracy and completeness of application forms.
2. When the information submitted with the application is insufficient for the Air Pollution Control Officer to make the determination required by Section 501.3 C., of this rule, Rule 523, NEW SOURCE REVIEW, by Rule 522 TITLE V - FEDERAL OPERATING PERMITS PROGRAM, for subject sources, and any other applicable rule, regulation, or order, upon the written request of the Air Pollution Control Officer a responsible official shall supplement any complete application with additional information within the time frame specified by the Air Pollution Control Officer.
3. A responsible official shall promptly provide additional information in writing to the Air Pollution Control Officer upon discovery of submittal of any inaccurate information as part of the application or as a supplement thereto, or of any additional relevant facts previously omitted which are needed for accurate analysis of the application.
4. Intentional or negligent submittal of inaccurate information shall be reason for denial of an application.
5. An application for an authority to construct, permit to operate, or permit amendment or revision shall be accompanied by payment of the application filing fee specified in Regulation VI, FEES.

D. **ACTION ON APPLICATIONS:** The Air Pollution Control Officer shall notify the applicant in writing of his or her approval, conditional approval, suspension, or denial of the application for an authority to construct or permit to operate.
1. With the exception of applications of sources subject to the requirements of Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, in the event said notification or notification of application completeness pursuant to Rule 523, NEW SOURCE REVIEW, is not received by applicant within 30 days of the filing of the application, or within 30 days of providing further information as required by Section 501.4 C., the applicant may, at his or her option, deem the application to construct or permit to operate denied.
2. Service of said notification may be made in person or by mail, and such service may be proved by the written acknowledgement of the person(s) served or affidavit of the person making the service.
3. For sources subject to the requirements of Rule 522 TITLE V - FEDERAL OPERATING PERMITS PROGRAM, action on applications for initial operating permits, permit renewal, or permit modification shall be taken in accordance of the provisions of that rule.

E. **CONDITIONAL APPROVAL:** The Air Pollution Control Officer may issue an authority to construct or a permit to operate subject to conditions which will bring the operation of 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, within the standards of Section 501.3 C., of this rule. The conditions shall be specified in writing. Commencing work under such an authority to construct, or operation under such a permit to operate, shall be deemed acceptance of all the conditions so specified. The Air Pollution Control Officer shall issue an authority to construct or a permit to operate with revised conditions upon receipt of a new application, if the applicant demonstrates that the article, machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants, can operate under the revised conditions within the standards of Section 501.3 C., of this rule.

F. **DENIAL OF APPLICATION:** In the event of a denial of an authority to construct or permit to operate, the Air Pollution Control Officer shall notify the applicant in writing of the reasons therefore. Service of this notification may be made in person or by mail, and such service may be proved by the written acknowledgement of the person(s) served or affidavit of the person making the service. The Air Pollution Control Officer shall not accept a

further application unless the applicant has complied with the objections specified by the Air Pollution Control Officer as his or her reasons for denial of the authority to construct or the permit to operate.

G. **DISCLOSURE:** The Air Pollution Control Officer, at any time, may require from an applicant, or holder of, any permit provided for in these rules and regulations, such information, analyses, plans, or specifications which will disclose the nature, extent, quality, or degree of air contaminants which are, or may be, discharged by the source for which the permit was issued or applied. The Air Pollution Control Officer may require that such disclosures be certified by a professional engineer registered in the State of California. A responsible official representing the owner or operator shall certify the truth, accuracy and completeness of disclosures. Studies necessary to provide such information, shall be at the expense of the owner or operator of the source for which a permit was issued or applied.

H. **EMISSION STATEMENT:** Upon the request of the Air Pollution Control Officer and as directed by the Air Pollution Control Officer, the owner or operator of any stationary source operation which emits or may emit oxides of nitrogen or reactive organic gas shall provide the Air Pollution Control Officer with a written statement, in accordance with Rule 1000, EMISSION STATEMENT, showing actual emissions of oxides of nitrogen and reactive organic gas from that source.

I. **SUSPENSION:** The Air Pollution Control Officer may suspend a permit if a holder of such permit willfully fails and refuses to furnish information, analyses, plans, and specifications, within a reasonable time, as requested by the Air Pollution Control Officer pursuant to California Health and Safety Code Section 42303, District Rules and Regulations, or any other law, rule, regulation, agreement, or order enforceable by the District. The Air Pollution Control Officer shall serve notice, in writing, of such suspension and the reasons therefor. Service of said notification may be made in person or by mail, and such service may be proved by the written acknowledgement of the persons served or affidavit of the person making the service. The permit shall be reinstated when the Air Pollution Control Officer is furnished with all requested information, analyses, plans, and specifications.

J. **CANCELLATION OF APPLICATION:** An authority to construct or permit to operate application may be cancelled by the Air Pollution Control Officer:
    1. At the request of the applicant; or
    2. If additional information has been requested of the applicant in accordance with Section 501.4 C., without the subsequent submittal of information within a reasonable time.

K. **CANCELLATION OF PERMIT TO OPERATE:** If, prior to the surrender of the operating permit, the Air Pollution Control Officer determines that the source or the emissions unit has been removed or fallen into an inoperable or un-maintained condition, the Air Pollution Control Officer may notify the owner of the intent to cancel the permit, providing the owner or operator with 30 days to respond. If the owner cannot demonstrate to the satisfaction of the Air Pollution Control Officer that the owner intended to operate again, or the owner does not respond within 30 days from the date a second noticing of the District's intent to cancel the permit is mailed by the District to the owner or operator, then the Air Pollution Control Officer may cancel the permit and deem the source or emissions unit shutdown as of the last known date the source or emissions unit discharged emissions.
    1. The owner or operator may request an extension of time, in writing prior to the end of the 60 day period following the initial notice, from the Air Pollution Control Officer.
    2. The Air Pollution Control Officer may grant an extension of time not to exceed 90 days.
    3. The owner or operator may claim emissions reductions resulting from the shutdown in accordance with the provisions of Rule 524, EMISSION REDUCTION CREDITS, prior to the end of the 60 day period following the initial notice, or prior to the expiration of an extension.
    4. The Air Pollution Control Officer shall advise, in writing, the owner or operator of the stationary source or emissions unit for which a permit is cancelled of the cancellation decision.
    5. The owner or operator may appeal the decision to cancel the permit pursuant to Section 501.4 M., of this rule.

L. **TEMPORARY PERMIT:** The Air Pollution Control Officer may issue a temporary permit to operate. The temporary permit to operate shall specify a reasonable period of time during which the article, machine, equipment, or contrivance may be operated in order for the District to determine whether it will operate in accordance with the conditions specified in the permit.

M. **APPEALS:** Within ten days after notice, by the Air Pollution Control Officer, of cancellation, suspension, denial, or conditional approval of an authority to construct, permit to operate, or emissions reduction credit application, the applicant or any other aggrieved person who participated in the permit issuance proceedings may petition the

Hearing Board, in writing, for an order modifying or reversing that decision. The Hearing Board after public notice and a public hearing held within thirty days after filing the petition, may sustain or reverse the action of the Air Pollution Control Officer; such order may be made subject to specified conditions.

N. **COMPLIANCE DATES:** Not withstanding earlier compliance dates for sources subject to the requirements of Rule 522 TITLE V - OPERATING PERMIT PROGRAM, an application for a permit to operate shall be submitted to the Air Pollution Control Officer by **October 26, 1994**, for existing equipment constructed prior to **April 26, 1994**, except:
   1. Existing internal combustion engines constructed prior to **April 26, 1994**, with a manufacturer's continuous rating of less than 150 brake horsepower and not subject to Section 501.1 D.1., shall submit an application for Permit to Operate by **April 26, 1995**.
   2. Existing boilers constructed prior to **April 26, 1994**, with a maximum heat input greater than 10,000,000 Btu per hour (gross) shall submit an application for Permit to Operate by **April 26, 1995**.
   3. Existing boilers constructed prior to **April 26, 1994**, with a maximum heat input less than 10,000,000 Btu per hour (gross) and not subject to Section 501.1 D.2., shall submit an application for Permit to Operate by **October 26, 1995**.

501.5 MONITORING AND RECORDS

A. **TESTING PROCEDURES:**
   1. GENERAL REQUIREMENTS: Except as otherwise specified in the District Rules and Regulations, the State Implementation Plan, and the applicable federal requirements of Rule 522 TITLE V - FEDERAL OPERATING PERMITS PROGRAM, testing methods for determining compliance with emission limits shall be:
      a. The appropriate methods adopted by the California Air Resources Board and cited in Title 17, California Code of Regulations, Division 3, Subchapter 8, Compliance with Nonvehicular Emission Standards; or
      b. The appropriate methods of 40 CFR part 50, Appendix M, Recommended Test Methods for State Implementation Plans; or
      c. Any appropriate method of 40 CFR part 60, Appendix A, Test Methods; or
      d. An alternative method following review and approval of that method by the California Air Resources Board and U.S. Environmental Protection Agency.
   2. INITIAL BOILING POINT: ASTM D-1078-86, "Test Method for Distillation Range of Volatile Organic Liquids".
   3. VAPOR PRESSURE: ASTM D-2879-86, "Vapor Pressure-Temperature Relation and Initial Decomposition Temperature of Liquids by Isoteniscope".

B. **MONITORING**: As applicable, each emission source subject to the requirements of Section 501.3A., and 501.3 B., shall comply with the following monitoring requirements:
   1. The requirements of Title 40, Code of Federal Regulations, Part 51, Appendix P, Minimum Emission Monitoring Requirements.
   2. The applicable federal requirements for monitoring of Title V of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.).

C. **RECORDKEEPING**:
   1. The following records shall be maintained and provided to the Air Pollution Control Officer upon request.
      a. Emissions monitoring and process data records necessary for the determination and reporting of emissions, in accordance with applicable provisions of the District Rules and Regulations, shall be maintained. Records shall be kept for 5 years.
      b. Other records of the nature and amounts of emissions or any other information as may be deemed necessary by the Air Pollution Control Officer to determine whether the stationary source or emissions unit is in compliance with applicable emission limitations, credited emission reductions, exemptions from rule provisions, or other requirements. The information must include emission measurements, continuous emission monitoring system performance testing measurements, performance evaluations, calibration checks and adjustments, maintenance performed on such monitoring systems, and other records and reports required by Title 40, Code of Federal Regulations,

Part 51, Appendix P, Minimum Emission Monitoring Requirements.

c. Operation and maintenance plans shall be submitted to the District for all add-on capture and control equipment for review and approval by the Air Pollution Control Officer. Such plans shall demonstrate, through the use of specific recordkeeping requirements, continuous operation of the add-on control equipment when emission producing operations are occurring. The plan shall also specify records to be kept to document the performance of required periodic maintenance. Records shall be consistent with compliance time frames and employ the most recent US Environmental Protection Agency recordkeeping guidance.

2. The Air Pollution Control Officer may require recordkeeping to verify or maintain any exemption.

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 502 GENERAL CONFORMITY RULE

ADOPTION DATE: November 8, 1994

502.1 GENERAL

A. **APPLICABILITY:** The provisions of Code of Federal Regulations (CFR), title 40, chapter I, subchapter C, parts 6 and 51, sections 51.850 through 51.860, in effect January 31, 1994, are made part of the Rules and Regulations of the El Dorado County Air Pollution Control District.

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 520 ENHANCED MONITORING AND COMPLIANCE CERTIFICATION

ADOPTED: June 27, 1995

INDEX

RULE 520
ENHANCED MONITORING AND COMPLIANCE CERTIFICATION

520.1 GENERAL

A. **PURPOSE:** The purpose of this rule is to provide standards by which the compliance with requirements derived from the federal Clean Air Act may be determined. The requirements of this rule arise from the provisions of Sections 110(a) (2) (A), (C), and (F); Section 113; and Section 114(a) (3) of the federal Clean Air Act.

B. **APPLICABILITY:** The provisions of this rule shall apply to sources that are subject to the provisions of Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM, or those sources that request synthetic minor source status under the provisions of Rule 519 REQUEST FOR SYNTHETIC MINOR SOURCE STATUS.

520.2 DEFINITIONS

A. **ADMINISTRATOR:** The Administrator of the United States Environmental Protection Agency or delegate.

B. **MAJOR SOURCE THRESHOLD:** The potential to emit a regulated air pollutant in the amounts specified in the definition of "major source" defined in Rule 522 TITLE V - FEDERAL OPERATING PERMIT PROGRAM.

C. **OWNER OR OPERATOR:** An owner or operator is any person who owns, operates, controls, or supervises a stationary source.

D. **SYNTHETIC MINOR SOURCE:** A stationary source which, pursuant to Rule 519 REQUEST FOR SYNTHETIC MINOR SOURCE STATUS or another mechanism, is subject to federally-enforceable conditions that limit its potential to emit to below major source thresholds.

520.3 STANDARDS

A. **COMPLIANCE CERTIFICATION:** Notwithstanding any other provision in any plan approved by the Administrator, for the purpose of submission of compliance certification required by federal law, the owner or operator is not prohibited from using the following, in addition to any specified compliance methods:

1. An enhanced monitoring protocol approved for the source pursuant to 40 CFR Part 64.
2. Any other monitoring method approved for the source pursuant to 40 CFR Part 70.6(a) (3) and incorporated into a federally enforceable operating permit.

B. **CREDIBLE EVIDENCE:** Notwithstanding any other provision in the District's State Implementation Plan approved by the Administrator, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such plan.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
    a. An enhanced monitoring protocol approved for the source pursuant to 40 CFR Part 64.
    b. A monitoring method approved for the source pursuant to 40 CFR Part 70.6(a) (3) and incorporated into a federally enforceable operating permit.
    c. Compliance test methods specified in the District's State Implementation Plan.
2. The following testing, monitoring, or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
    a. Any federally-enforceable monitoring or testing methods, including those in 40 CFR Parts 51, 60, 61, and 75.
    b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method specified in Sections 520.3 A.1. or 520.3 A.2. of this rule.

C. **VIOLATIONS OF OTHER LEGAL MANDATES:** Nothing in the District Rules and Regulations is intended to permit any practice which is a violation of any statute, ordinance, rule or regulation.

520.4 ADMINISTRATIVE REQUIREMENTS

A. **EFFECTIVE DATE:** This rule becomes effective on **June 27, 1995.**

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 523 NEW SOURCE REVIEW

ADOPTED: April 26, 1994

INDEX

AE. PORTABLE EQUIPMENT>
AF. POTENTIAL TO EMIT
AG. PRECURSOR
AH. PRIORITY RESERVE BANK
AI. PROPOSED EMISSIONS
AJ. QUARTERLY
AK. QUARTERLY EMISSION LIMITATION
AL. REACTIVE ORGANIC COMPOUND
AM. RECONSTRUCTED SOURCE
AN. REDUCED SULFUR COMPOUNDS
AO. REGULATED AIR POLLUTANT
AP. REPLACEMENT EQUIPMENT
AQ. SACRAMENTO VALLEY AIR BASIN
AR. STATIONARY SOURCE
AS. TEMPORARY SOURCE
AT. TOTAL REDUCED SULFUR COMPOUNDS

523.3 STANDARDS

A. BEST AVAILABLE CONTROL TECHNOLOGY
B. OFFSET REQUIREMENTS, GENERAL
C. LOCATION OF OFFSETS AND OFFSET RATIOS
D. INTERPOLLUTANT OFFSETS
E. EMISSION REDUCTIONS, SHUTDOWNS AND CURTAILMENTS
F. AMBIENT AIR QUALITY STANDARDS
G. DENIAL, FAILURE TO MEET STANDARDS
H. CEQA APPLICABILITY
I. DENIAL, FAILURE TO MEET CEQA
J. CONTROL TECHNOLOGY INFORMATION

53.4 ADMINISTRATIVE REQUIREMENTS

A. COMPLETE APPLICATION
B. AIR QUALITY MODELS
C. PRELIMINARY DECISION
D. PUBLICATION AND PUBLIC COMMENT
E. PUBLIC INSPECTION
F. AUTHORITY TO CONSTRUCT, FINAL ACTION
G. REQUIREMENTS, AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE
H. ISSUANCE, PERMIT TO OPERATE
I. REGULATIONS IN FORCE GOVERN
J. CALCULATION OF EMISSIONS - BACT
K. CALCULATION OF EMISSIONS - OFFSETS TRIGGER FOR ROC, NOX AND CO
L. CALCULATION OF EMISSIONS - OFFSETS TRIGGER FOR SOX AND PM10
M. CALCULATION OF EMISSIONS - OFFSETS GENERAL
N. CALCULATION OF EMISSIONS - OFFSETS REQUIRED FOR ROC, NOX AND CO
O. CALCULATION OF EMISSIONS - OFFSETS REQUIRED FOR SOX AND PM10
P. POWER PLANTS

523.5 MONITORING AND RECORDS

A. RECORDKEEPING
B. RECORDKEEPING FOR SOURCES SUBJECT TO RULE 522

RULE 523
NEW SOURCE REVIEW

523.1 GENERAL

A. **PURPOSE:** The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct for such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

B. **APPLICABILITY**: This rule shall apply to all new stationary sources and emissions units and all modifications to existing stationary sources and emissions units which, after construction, emit or may emit any affected pollutants or regulated pollutants to which Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, applies. This rule shall not apply to prescribed burning of forest, agriculture or range land; open burning in accordance with District Regulation III, OPEN BURNING; road construction or any non-point source common to timber harvesting or agricultural practices. Exemptions allowed in this Section shall not be used to exempt any stationary source or modification, which would be subject to review under U.S. Environmental Protection Agency (EPA) regulations or review pursuant to Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, from permit requirements. The regulations in effect at the time any application for an Authority to Construct is deemed complete shall apply.

C. **EXEMPTION, EMERGENCY ELECTRICAL GENERATING EQUIPMENT:** Except as otherwise required for sources subject to the requirements of Title V of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.), and pursuant to Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, the Air Pollution Control Officer shall exempt an application from the requirements of Sections 523.3 B., and 523.3 C., if the emissions unit would provide emergency electrical power or if the emissions unit would provide emergency water pumping for flood control or emergency fire fighting and is not a major source or major modification, provided the requirements of Sections 523.1 C. 1., and 523.1 C. 2., are met. This exemption shall not apply to emissions units supplying power to a serving utility for distribution on the electric transmission grid nor the operation of standby power sources due to a voluntary reduction in power by the serving utility.

1. Operation for maintenance purposes of internal combustion engines used solely as a source of emergency electrical power, not otherwise exempt, shall be limited to 100 hours per year, and such maintenance shall be scheduled in cooperation with the District so as to have no adverse air quality impact or shall mitigate by emission offsets or onsite reductions so that there is no net increase in emissions; and

2. Operation for other than maintenance purposes shall be limited to actual interruptions of electrical power by the serving utility. Operation shall not exceed 24 hours without prior authorization by the Air Pollution Control Officer.

D. **EXEMPTION, NOTIFICATION REQUIREMENTS:** Except as otherwise required for sources subject to the requirements of Title V of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.), and pursuant to Rule 522, Title V - FEDERAL OPERATING PERMIT PROGRAM, the requirements of Sections 523.4 C., 523.4 D., 523.4 E., and 523.4 F.2., relating to notification, publication, and public inspection of Preliminary Decisions; and notification, publication, and public inspection of final action shall not apply if the application is for a new or modified stationary source or emissions unit which does not trigger a requirement for offsets, calculated pursuant to Sections 523.4 M., 523.4 N. or 523.4 O., as applicable.

E. **EXEMPTION, RELOCATED EQUIPMENT:** The requirements of Sections 523.3 B. and 523.3 C. shall not apply to relocation of emission units solely within the District and within the air basin of which the District is part, and the relocation does not result in an increase in emissions. This exemption is subject to the performance of an air quality

analysis pursuant to Section 523.3 F.

F. **EXEMPTION, REPLACEMENT EQUIPMENT:** The requirements of Sections 523.3 B. and 523.3 C., shall not apply to replacement equipment, providing the replacement does not result in any emissions increase.

G. **EXEMPTION, TEMPORARY SOURCES:** The requirements of Sections 523.3 B. and 523.3 C., shall not apply to temporary stationary emission sources, emission units, and portable equipment which will be operated on a temporary basis. This exemption is subject to the

performance of an air quality analysis pursuant to Section 523.3 F.

H. **EXEMPTION, RULE COMPLIANCE:** The requirements of Sections 523.3 B. and 523.3 C., shall not apply to modifications necessary to comply with standards contained in Regulation II, PROHIBITIONS. This Section shall not apply to modifications in production rate, hours of operation, or other changes or additions to existing equipment not necessary for compliance with standards contained in Regulation II, PROHIBITIONS.

523.2 DEFINITIONS: Unless otherwise defined below, the terms used in this rule are defined in Rule 524, EMISSIONS REDUCTION CREDITS; and Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM.

A. **ACTUAL EMISSIONS** - Measured or estimated emissions which most accurately represent the emissions from an emissions unit. Fugitive emissions associated with the emissions unit shall be included in the actual emissions of the emissions unit.

B. **ACTUAL EMISSIONS REDUCTIONS** - Reductions of actual emissions from an emissions unit selected for on-site (internal) or off-site (external) emissions offsets. Actual emission reductions shall be calculated, adjusted and certified pursuant to Rule 524, EMISSION REDUCTION CREDITS, or to applicable federal requirements.

C. **ACTUAL INTERRUPTIONS OF ELECTRICAL POWER** - When electrical service is interrupted by an unforeseeable event.

D. **ACTUAL OPERATING DAYS** - Any day of operation which results in the emission of an affected pollutant from the emissions unit.

E. **AFFECTED POLLUTANTS** - Reactive organic compounds (ROC), nitrogen oxides (NOx), sulfur oxides (SOx), PM10, carbon monoxide (CO), lead, vinyl chloride, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, and reduced sulfur compounds, or any other pollutant or precursor for which an ambient air quality standard has been established by the U.S. Environmental Protection Agency or the California Air Resources Board.

F. **AMBIENT AIR QUALITY STANDARDS** - State and federal ambient air quality standards for the purpose of submittal to the U.S. Environmental Protection Agency for inclusion in the California State Implementation Plan. All references in this rule to Ambient Air Quality Standards shall be interpreted as National Ambient Air Quality Standards.

G. **BEST AVAILABLE CONTROL TECHNOLOGY (BACT) -**

1. For any emissions unit the most stringent of:

a. The most effective emission control device, emission limit, or technique, singly or in combination, which has been required or used for the type of equipment comprising such an emissions unit unless the applicant demonstrates to the satisfaction of the Air Pollution Control Officer that such limitations required on other sources have not been demonstrated to be achievable.

b. Any alternative basic equipment, fuel, process, emission control device or technique, singly or in combination, determined to be technologically feasible and cost-effective by the Air Pollution Control Officer.

c. For replacement equipment only, the emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.

2. In making a BACT determination for nonattainment pollutant the Air Pollution Control Officer may consider the overall effect on other nonattainment pollutants. In some cases the lowest emission rates may be required for one or more nonattainment pollutants at the cost of not achieving the lowest emission rate for other nonattainment pollutants. The Air Pollution Control Officer shall discuss these considerations in the Preliminary Decision prepared pursuant to Section 523.4 C.

3. Under no circumstances shall BACT be determined to be less stringent than the emission control required by an applicable provision of district, state or federal laws or regulations unless the applicant demonstrates to the satisfaction of the Air Pollution Control Officer that such limitations are not achievable.

H. **CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) -** The California Environmental Quality Act, Public Resources Code, Section 21000, et seq.

I. **CARGO CARRIERS -** Cargo carriers are trains dedicated to a specific source.

J. **COMMENCE** - As applied to construction, means that the owner or operator has all necessary permits or approvals required under State and Federal air quality control laws, District Rules and Regulations, and those air quality control laws and regulations which are part of the California State Implementation Plan, and has:

1. Begun, or caused to begin, a continuous program of on-site construction of the source, to be completed in a reasonable time, or;

2. Entered into binding agreements or contractual obligations which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

K. **COMPLETE APPLICATION** - Completeness of an application for an authority to construct a new or modified emission unit shall be evaluated on the basis of a list of required information which has been adopted by the District pursuant to Article 3, Sections 65940 through 65944 of Chapter 4.5 of Division 1 of Title 7 of the California Government Code as they exist on the date on which the application is received and on payment of the appropriate fee pursuant to Regulation VI, FEES and Rule 522 Section 522.7 SUPPLEMENTAL ANNUAL FEE.

L. **CONSTRUCTION** - Means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in actual emissions.

M. **CONTIGUOUS PROPERTY** - Two or more parcels of land with a common boundary or separated solely by a public roadway or other public right-of-way.

N. **COST-EFFECTIVE** - A cost per unit of emissions reduction which is lower than or equivalent to the maximum unit costs of the same emission reduction through the use of Best Available Control Technology, calculated in current year dollars, in accordance with methodology and criteria specified in guidelines developed by the District.

O. **ELECTRICAL POWER PLANT** - An electrical generation facility that regularly generates electricity so the local electric utility can provide its daily energy

requirements. Emergency electrical generating equipment are not considered electrical power plants.

P. **EMISSION DECREASE** - Any modification which would result in an emission decrease of actual emissions. The emission decrease shall be calculated by subtracting the proposed emissions from the historic actual emissions.

Q. **EMISSIONS LIMITATION** - One or a combination of permit conditions specific to an emissions unit which restricts its maximum emissions, at or below the emissions associated with the maximum design capacity. An emissions limitation shall be:

1. Contained in the latest authority to construct and contained in or enforceable by the latest permit to operate for the emission unit, and;

2. Enforceable on a daily basis or quarterly basis pursuant to Section 523.4 G.2., and;

3. Established pursuant to a permitting action occurring after December 31, 1976.

Emission limitations should be stated in a manner consistent with testing procedures. Emission limitations may be expressed as enforceable design, operational, or equipment standard pursuant to Section 523.4 G.3.

R. **EMISSIONS UNIT** - An identifiable operation or piece of process equipment such as an article, machine, or other contrivance which controls, emits, may emit, or results in the emissions of any affected air pollutant, regulated air pollutant or Hazardous Air Pollutant (HAP), directly or as fugitive emissions. An emissions unit shall not include the open burning of agricultural biomass.

S. **FUGITIVE EMISSIONS** - Those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Fugitive hazardous air pollutant emissions shall be considered when determining whether a source is a major stationary source pursuant to Title V of the Federal Clean Air Act as amended in 1990 and Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM. The fugitive emissions of a source shall not be considered in determining whether it is a major stationary source pursuant to Title V, unless the source belongs to one of the following categories of stationary sources listed in 40 CFR 70.2, "Definitions", "Major Source" (2).

T. **HALOGENATED HYDROCARBONS** - For the purposes of this rule, halogenated hydrocarbons are the following:

1. 1,1,1-trichloroethane

2. methylene chloride

3. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)

4. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)

5. trichlorofluoromethane (CFC-11)

6. dichlorodifluoromethane (CFC-12)

7. 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113)

8. 1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane (CFC-114)

9. chloropentafluoroethane (CFC-115)

10. pentafluoroethane (HFC-125)

11. 1,1,2,2-tetrafluoroethane (HFC-134)

12. tetrafluoroethane (HFC-134a)

13. 1,1-dichloro-1-fluoroethane (HCFC-141b)

14. 1-chloro-1,1-difluoroethane (HCFC-142b)

15. 1,1,1-trifluoroethane (HFC-143a)

16. chlorodifluoromethane (HCFC-22)

17. trifluoromethane (HFC-23)

18. 1,1-difluoroethane (HFC-152a)

19. The following four classes of perfluorocarbon 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.

d. Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

Perfluorocarbon compounds will be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present in the product or process and provides a validated test method which can be used to quantify the specific compounds.

U. **HAZARDOUS AIR POLLUTANT (HAP)** - Any air pollutant listed pursuant to Section 112(b) of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.).

V. **HISTORIC ACTUAL EMISSIONS** -

1. For applications for emissions reductions deemed complete after **April 26, 1994**, "historic actual emissions" are the actual emissions for the existing emissions unit averaged over the consecutive two year period immediately preceding the date of application for emission reduction credits. If the last two years are unrepresentative of normal source operations as determined by the Air Pollution Control Officer, then any two consecutive years of the last five years that represent normal source operation may be used.

2. For applications for emissions reductions deemed complete prior to **April 26, 1994**, "historic actual emissions" are either as calculated in Subsection 523.2 V.1., above, or, at the option of the applicant and with the approval of the Air Pollution Control Officer, are the actual emissions for the existing emissions unit averaged over the three year period immediately preceding the date of application for emission reduction credits.

3. If, at any time during the two or three year period, actual emissions exceeded allowed or permitted emission levels, then actual emissions shall be reduced to reflect emission levels that would have occurred if the unit were in compliance with all applicable limitations and rules.

4. Where an emissions unit has been in operation for less than two years, a shorter averaging period of at least one year may be used, provided that the averaging period is representative of the full operational history of the emissions unit. If less than one year has passed since the date of issuance of the permit to operate then the historic actual emissions shall be zero.

W. **HISTORIC POTENTIAL EMISSIONS** - Emissions based on the potential to emit of the emissions unit prior to modification. In determining the potential to emit, daily emissions limitations shall be treated as part of an emissions unit's design only if the limitations are representative of normal operations, or if the facility has provided offsets from previous permitting actions. If there are no enforceable limiting conditions, an emissions unit's potential to emit shall be limited to

the unit's, historical actual emissions. For a new emissions unit historic potential emissions are equal to zero. For the purposes of the above determination, "normal operations" is defined as the usual or typical daily operating of an emissions unit resulting in actual emissions which are at least 80% of the specific limits contained in the emission unit's authority to construct or permit to operate.

X. **LAKE TAHOE AIR BASIN** - Established pursuant to Section 39606 of the Health & Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60113 (a) or 40 CFR 81.275.

This Air Basin is delineated on an official map on file at the California Air Resources Board Headquarters Office.

Y. **MAJOR STATIONARY SOURCE** - A stationary source which emits or has the potential to emit: 50 tons per year (tpy) or more of nitrogen oxides, 50 tons per year or more of reactive organic compounds, 100 tons per year or more of carbon monoxide, 100 tons per year or more of PM10, 100 tons per year of sulfur oxides, 100 tons per year of any regulated pollutant or levels specified by the U.S. Environmental Protection Agency pursuant to the Federal Clean Air Act of 1990, Section 112(a)(1). In addition, any physical change occurring at a stationary source not otherwise qualifying as a major stationary source, which would constitute a major stationary source by itself makes the source a major stationary source. For the purposes of Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, a major stationary source also includes any source which emits or has a potential to emit 10 tpy of one HAP or 25 tpy of two or more Hazardous Air Pollutants (HAPs), as listed pursuant to Section 112(b) of the Federal Clean Air Act, or any lesser quantity threshold promulgated by the U.S. Environmental Protection Agency.

Z. **MAJOR MODIFICATION** - Modification to a major stationary source which results in an increase in the potential to emit greater than: 25 tons per year of nitrogen oxides, 25 tons per year of reactive organic compounds, 100 tons per year of carbon monoxide, 40 tons per year of sulfur oxides, or 15 tons per year of PM10 aggregated with all other increases in potential to emit over the period of five consecutive years before the application for modification, and including the calendar year of the most recent application.

AA. **MODIFICATION** - Any physical change, change in method of operation (including change in fuel characteristics), addition to, or any change in hours of operation, or change in production rate of, which:

1. For an emissions unit:

a. Would necessitate a change in permit conditions, or;

b. Is not specifically limited by a permit condition, or;

c. Results in an increase, a decrease, or no change in emissions which are not subject to an emissions limitation.

2. For a stationary source: is a modification of its emissions unit, or addition of any new emissions unit.

3. The following shall not be considered a modification:

a. A change in ownership.

b. Routine maintenance and repair.

c. A reconstructed stationary source or emissions unit which shall be treated as a new stationary source or emissions unit, not as a modification.

d. The addition of a continuous emission monitoring system.

BB. **MOUNTAIN COUNTIES AIR BASIN** - Established pursuant to Section 39606 of the Health & Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60111 (i), the Mountain Counties Air Basin includes all of El Dorado County except that portion included in the Lake Tahoe Air Basin, defined by 17 CCR 60113(b), and that portion included in the Sacramento Valley Air Basin, defined by 17 CCR 60106(k).

CC. **NONATTAINMENT POLLUTANT** - Any pollutant as well as any precursors of such pollutants which has been designated "nonattainment" by the U.S. Environmental Protection Agency in the Federal Register, or which has been designated nonattainment by the California Air Resources Board pursuant to Section 39607 of the Health and Safety Code.

DD. **PM10** - Particulate matter with an aerodynamic diameter smaller than or equal to a nominal 10 microns as measured by an applicable reference test method or methods found in Article 2, Subchapter 6, Title 17, California Code of Regulations (commencing with Section 94100).

EE. **PORTABLE EQUIPMENT** - Equipment which is periodically relocated and is not operated more than a total of 180 days at any one location in the District within any continuous 12 month period.

FF. **POTENTIAL TO EMIT** - The maximum daily physical and operational design capacity to emit an air pollutant during each calendar quarter. Any limitation on the physical or operational design capacity, including emission control devices and restrictions on hours of operation, or on the type, or amount of material combusted, stored, or processed, may be considered as part of the design only if the limitation, or the effect it would have on emissions, is incorporated into the Authority to Construct as an enforceable permit condition as daily emissions limitations. Fugitive emissions associated with the emissions unit or stationary source shall be included in the potential to emit of the emissions unit or stationary source.

GG. **PRECURSOR** - A pollutant that, when emitted into the atmosphere, may undergo either a chemical or physical change which then produces another 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-secondary air contaminant relationships shall be used for the purposes of this rule:

Precursor	**Secondary Air Contaminant**

Reactive Organic Compound	a. Photochemical oxidants (Ozone) b. Organic fraction of PM10
Nitrogen Oxides	a. Nitrogen dioxide b. Nitrate fraction of PM10 c. Photochemical oxidants (Ozone)
Sulfur Oxides	a. Sulfur dioxide b. Sulfates c. The sulfate fraction of PM

HH. **PRIORITY RESERVE BANK** - A depository for preserving emission reduction credits pursuant to Rule 525, PRIORITY RESERVE.

II. **PROPOSED EMISSIONS** - Emissions based on the potential to emit for the new or modified emissions unit.

JJ. **QUARTERLY** - Calendar quarters beginning in January, April, July, and October.

KK. **QUARTERLY EMISSIONS LIMITATION** - One or a combination of permit conditions specific to an emissions unit which restricts its maximum emissions, in pounds per quarter, at or below the emissions associated with the maximum design capacity. A quarterly emissions limitation must be:

1. Contained in the latest authority to construct and contained in or enforceable by the latest permit to operate for the emission unit, and

2. Enforceable on a quarterly basis, and

3. Established pursuant to a permitting action occurring after December 31, 1976.

LL. **REACTIVE ORGANIC COMPOUND** - Any compound containing carbon except: methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonates, and halogenated hydrocarbons.

MM. **RECONSTRUCTED SOURCE** - Any emissions unit undergoing physical modification where the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new stationary source or emissions unit. Fixed capital cost means that capital needed to provide all the depreciable components. A reconstructed source shall be treated as a new stationary source or emissions unit.

NN. **REDUCED SULFUR COMPOUNDS** - The sulfur compounds hydrogen sulfide, carbon disulfide and carbonyl sulfide.

OO. **REGULATED AIR POLLUTANT -** A "regulated air pollutant" is any pollutant: 1) which is emitted into or otherwise enters the ambient air, and 2) for which the State or the US Environmental Protection Agency has adopted an emission limit, standard, or other requirement. Regulated air pollutants include:

1. Oxides of nitrogen and volatile organic compounds;

2. Any pollutant for which a national ambient air quality standard has been promulgated pursuant to Section 109 of the Federal Clean Air Act;

3. Any pollutant subject to a new source performance standard promulgated pursuant to Section 111 of the Federal Clean Air Act;

4. Any ozone depleting substance specified as a Class I (chlorofluorocarbons) or Class II (hydrofluorocarbons) substance pursuant to Title VI of the Federal Clean Air Act; and

5. Any pollutant subject to a standard or requirement promulgated pursuant to Section 112 of the Federal Clean Air Act, including:

a. Any pollutant listed pursuant to Section 112(r) of the Federal Clean Air Act (Prevention of Accidental Releases) 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 U.S. Environmental Protection Agency pursuant to Section 112(d) or adopted by the District pursuant to 112(g) and (j) of the Federal Clean Air Act shall be considered a "regulated air pollutant" for all sources or categories of sources: 1) upon promulgation of the standard or requirement, or 2) 18 months after the standard or requirement was scheduled to be promulgated pursuant to Section 112(e)(3) of the Federal Clean Air Act.

c. Any HAP subject to a District case-by-case emissions limitation determination for a new or modified source, prior to the U.S. Environmental Protection Agency 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 Federal Clean Air Act. 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.

PP. **REPLACEMENT EQUIPMENT -**

1. Functionally Identical Replacement: The replacement of or modification of emission units(s) where the replacement unit serves the identical function as the unit(s) being replaced, and the maximum rating and the potential to emit any pollutant will not be greater from the new or modified emissions unit(s) than the replaced unit(s), when the emissions unit(s) are operated at the same permitted conditions as if current BACT were applied. The Air Pollution Control

Officer will determine, on a case-by-case basis, whether a project to replace an emissions unit in whole or part with fucntionally equivalent equipment is a routine repair, commonly made in the industry. Projects intended to extend the expected useful life of the unit may not be considered routine replacements.

2. Identical Replacement: The total or partial replacement of an emissions unit where the replacement is the same as the original unit in all respects except for serial number.

QQ. **SACRAMENTO VALLEY AIR BASIN** - Established pursuant to Section 39606 of the Health & Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60106.

RR. **STATIONARY SOURCE (SOURCE OR FACILITY) -** Any building, structure, facility, or emissions unit which emits or may emit any affected pollutant directly or as fugitive emissions.

1. Building, structure, facility, or emissions unit includes all pollutant emitting activities which:

a. Belong to the same industrial grouping, and;

b. Are located on one property or on two or more contiguous properties, 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.

2. Pollutant emitting activities shall be considered as part of the same industrial grouping if:

a. They belong to the same two-digit standard industrial classification code under the system described in the 1987 Standard Industrial Classification Manual, or;

b. They are part of a common production process. (Common production process includes industrial processes, manufacturing processes and any connected processes involving a common material).

3. The emissions within District boundaries of cargo carriers associated with the stationary source shall be considered emissions from the stationary source to the extent that emission reductions from cargo carriers are proposed as offsets.

SS. **TEMPORARY SOURCE** - Temporary emission sources such as pilot plants, and portable facilities which will be terminated or located outside the District after less than a cumulative total of 90 days of operation in any 12 continuous months , and the emissions resulting from the construction phase of a new source.

TT. **TOTAL REDUCED SULFUR COMPOUNDS -** The sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide and dimethyl disulfide.

523.3 STANDARDS

A. **BEST AVAILABLE CONTROL TECHNOLOGY**: An applicant shall apply Best Available Control Technology to a new emissions unit or modification of an existing emissions unit, except cargo carriers, for each emissions change of an affected pollutant, which would have an increase in emissions, according to procedures specified in Section 523.4 J., and the potential to emit of the new or modified emissions unit which equals or exceeds the levels specified in Section 523.3 A.1. A condition which reflects BACT in a manner consistent with testing procedures, such as ppmv NOx, g/liter VOC, or lbs/hr shall be contained in the latest authority to construct and permit to operate.

Pollutant	lb/day
Reactive organic compounds	10
Nitrogen oxides	10
Sulfur oxides	80
PM10	80
Carbon monoxide	550
Lead	3.3
Vinyl chloride	5.5
Sulfuric acid mist	38
Hydrogen sulfide	55
Total reduced sulfur compounds	55
Reduced sulfur compounds	55

B. **OFFSET REQUIREMENTS, GENERAL**:

1. An applicant shall provide offsets for the affected pollutant, except as provided in Section 523.3 D., obtained pursuant to Rule 524, EMISSION REDUCTION CREDITS, or Rule 525, PRIORITY RESERVE, for new and modified sources where the cumulative emission changes of reactive organic compounds, nitrogen oxides, sulfur oxides, PM10 or carbon monoxide calculated pursuant to Section 523.4 K. or 523.4 L., exceed the level specified in Section 523.3 B.1.a., below. Sufficient offsets shall be provided, from the same calendar quarter as the emissions, to offset positive emissions changes of reactive organic compounds, nitrogen oxides and carbon monoxide (except as provided in Section 523.3 B.2) calculated according to procedures specified in Section 523.4 N. Sufficient offsets shall be provided, from the same calendar quarter as the emissions, to offset positive emissions changes of sulfur oxides and PM10 calculated according to procedures specified in Section 523.4 O. Facilities shall be required to curtail operations if sufficient offsets are not obtained as required by permit conditions. Except as provided for in Section 523.3 D., emission offsets used to mitigate emission increases must be of the same pollutant type. The facility is ultimately responsible for ensuring offsets:

a. Pollutant pounds per quarter

Reactive organic compounds 7,500

Nitrogen oxides 7,500

Sulfur oxides 12,500

PM10 7,500

Carbon monoxide 7,500

2. Offsets for increases in carbon monoxide shall not be required if the applicant, using an air quality modeling analysis prepared pursuant to Section 523.4 B., demonstrates to the satisfaction of the Air Pollution Control Officer that the increase in ambient concentration does not exceed 500 micrograms per cubic meter, 8 hour average, at or beyond the property line of the stationary source.

3. In no case shall halogenated hydrocarbons be used as offsets for reactive organic compounds, nor shall exempt compounds or other compounds excluded

from the definition of reactive organic compounds be used as offsets for reactive organic compounds.

4. Portable equipment shall be evaluated for offsets at the initial location only. In the event such portable equipment is shutdown, emission reduction credits shall be granted based on the emissions calculated at the initially permitted location. If operated a cumulative total of less than 90 days within a continuous 12 month period, at all locations within the District and in any air basin of which the District is a part, the portable equipment is considered a temporary source.

5. Except as allowed by Section 523.4 L.1., for sources which have provided full offsets of total suspended particulate (TSP), the PM10 emissions from an existing stationary source shall be recalculated from the TSP emission increases and decreases which have occurred since December 31, 1976, using PM10 emission factors. When PM10 emission factors do not exist assume 50% of the TSP is PM10.

6. Offsets can only come from regions with the same nonattainment classification or higher nonattainment classification than that of the emissions unit or stationary source requiring the offsets.

C. **LOCATION OF OFFSETS AND OFFSET RATIOS**:

1. Except as provided in Subsections 523.3 C.2., and 523.3 C.3., and Section 523.3 D., an applicant shall provide offsets for emissions from a proposed stationary source subject to the requirements of Section 523.3 B., according to the following ratios and requirements as a minimum:

Offset Ratio

Non-Attainment Other Affected

Location of Offset Pollutants Pollutants

Same Source 1.0 to 1.0 1.0 to 1.0

Within 15-Mile Radius 1.2 to 1.0 1.1 to 1.0

and within the District

Within 15-Mile Radius 1.3 to 1.0 1.2 to 1.0

outside the District, but

within the same air basin

Greater than 15-Mile 2.0 to 1.0 1.2 to 1.0

but within 50-Mile Radius

and within District

Greater than 15-Mile 2.1 to 1.0 1.3 to 1.0

but within 50-Mile Radius and

outside the District, but

within the same air basin

More than 50-Mile Greater than Greater than

Radius and within the 2.1 to 1.0 1.3 to 1.0

same air basin

2. Offsets obtained from locations not satisfying the location criteria of Subsection 523.3 C.1., other than offsets obtained pursuant to Rule 525, PRIORITY RESERVE, shall be subject to an offset ratio of at least 1.2 to 1.0. An air quality analysis pursuant to Section 523.3 F., shall be performed. The Air Pollution Control Officer may impose, based on the air quality analysis, a higher offset ratio such that the new or modified stationary source will not prevent or interfere with the attainment or maintenance of any ambient air quality standard.

3. Applicants providing offsets obtained pursuant to Rule 525, PRIORITY RESERVE, shall be subject to an offset ratio of 1.0 to 1.0 for all pollutants at all distances except for major stationary sources. Major stationary sources providing offsets obtained pursuant to Rule 525, PRIORITY RESERVE, shall be subject to an offset ratio of 1.2 to 1.0 for all pollutants at all distances.

4. Offsets which are obtained pursuant to Sections 523.3 B., and 523.3 C., and pursuant to permitting actions in a district other than that in which the proposed source is located may be used only if the Air Pollution Control Officer has reviewed the permit conditions issued by the other district in which the proposed offsets are obtained and certifies that

the impact of using such offsets meet the requirements of the District Rules and Regulations. Emission reduction credits used to offset project emissions in another district shall be implemented through an interdistrict agreement to ensure their enforceability and permanence pursuant to California Health and Safety Code Section 40709.6.

D. **INTERPOLLUTANT OFFSETS**: The Air Pollution Control Officer may approve interpollutant offsets for precursor pollutants on a case by case basis, provided that the applicant demonstrates through the use of an air quality model that the emission increases from the new or modified source will not cause or contribute to a violation of an ambient air quality standard. In such cases, the Air Pollution Control Officer shall impose based on an air quality analysis, offset ratios greater than the requirements of Section 523.3 C. Interpollutant offsets between PM10 and PM10 precursors may be allowed only if PM10 precursors contribute significantly to the PM10 levels that exceed the PM10 ambient standards. PM10 emissions shall not be allowed to offset nitrogen oxides or reactive organic compound emissions in ozone nonattainment areas, nor be allowed to offset sulfur oxide emissions in sulfate nonattainment areas.

E. **EMISSION REDUCTIONS, SHUTDOWNS AND CURTAILMENTS:** Actual emission reductions from a shutdown or curtailment of permitted emission units may be credited for the purposes of banking and offsets pursuant to Rule 524, EMISSION REDUCTION CREDITS, provided:

1. Application is made for emission reduction credits, and;

2. The crediting and disbursement of emission reductions from source shutdowns and curtailments shall be in accordance with the most current U.S. Environmental Protection Agency emissions trading policy and applicable federal regulations, and;

3. Emissions decreases are ensured and documented by enforceable emission limitations contained in the permit to operate, or;

4. Emissions decreases are ensured by the permanent surrender or cancellation of the permit to operate.

F. **AMBIENT AIR QUALITY STANDARDS:** In no case shall emissions from the new or modified stationary source, prevent or interfere with the attainment or maintenance of any applicable ambient air quality standard, except as provided in Section 523.3 B.2. The Air Pollution Control Officer may require the use of an air quality model to estimate the effects of a new or modified stationary source. The analysis shall estimate the effects of a new or modified stationary source, and verify that the new or modified stationary source will not prevent or interfere

with the attainment or maintenance of any ambient air quality standard. In making this determination the Air Pollution Control Officer shall take into account the mitigation of emissions through offsets pursuant to this rule and the impacts of transported pollutants on downwind pollutant concentrations. The Air Pollution Control Officer may impose, based on an air quality analysis, offset ratios greater than the requirements of Section 523.3 C.

G. **DENIAL, FAILURE TO MEET STANDARDS**: The Air Pollution Control Officer shall deny any authority to construct or permit to operate if the Air Pollution Control Officer finds that the subject of the application would not comply with the standards set forth in District, state, or federal rules or regulations. Stationary sources and emission units are required to curtail operations corresponding to the extent that required offsets are not obtained, or are not permanently maintainable. The owner or operator of the stationary source or emissions unit requiring offsets has the ultimate responsibility for ensuring offsets are real, surplus, permanent, and quantifiable.

H. **CEQA APPLICABILITY:** All proposed new and modified sources for which an authority to construct must be obtained from the District shall be reviewed in accordance with the requirements of CEQA, including, but not limited to, alternative siting and benefits analysis as specified in the Federal Clean Air Act, Section 173(A)(5).

I. **DENIAL, FAILURE TO MEET CEQA:** The Air Pollution Control Officer shall deny any authority to construct or permit to operate if the Air Pollution Control Officer finds that the subject of the application would not comply with the standards set forth in CEQA.

J. **CONTROL TECHNOLOGY INFORMATION:** The District shall expeditiously submit all control technology information from all authorities to construct issued per this section to the U.S. Environmental Protection Agency's RACT/BACT/LAER Clearinghouse.

523.4 ADMINISTRATIVE REQUIREMENTS

The following administrative requirements in Sections 523.4 A. - 523.4 O., shall apply to any activities regulated by this rule, except for the review of power plants over 50 megawatts. Power plants over 50 megawatts shall be subject to the review requirements of Section 523.4 P., and applicable requirements of Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM. Stationary sources which are subject to Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, shall be permitted in accordance with the procedures specified in that rule, in addition to the requirements of this Section which are consistent with Rule 522.

A. **COMPLETE APPLICATION**: With the exception of applications for initial permit to operate, permit renewal, or a significant modification for stationary sources subject to the requirements of Title V of the Federal Clean Air as amended in 1990 and Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, the Air Pollution Control Officer shall determine whether the application is complete no later than 30 days after receipt of the application, or after such longer time period that the applicant and the Air Pollution Control Officer have agreed in writing. If the Air Pollution Control Officer determines that the application is not complete, the applicant shall be notified in writing of the decision specifying the information required. Upon receipt of any re-submittal of the application, a new 30-day period to determine completeness shall begin. Completeness of an application or a re-submitted application shall be evaluated on the basis of the information requirements set forth in District regulations (adopted pursuant to Article 3, 65940 through 65944 of Chapter 4.5 of Division l of Title 7 of the California Government Code) as they exist on the date on which the application or re-submitted application was received, on the CEQA-related information which satisfies the requirements of the District's CEQA Guidelines, and the applicable requirements of Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM. The Air Pollution 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.

B. **AIR QUALITY MODELS**: All air quality models used for the purposes of this rule shall be consistent with the requirements provided in the most recent edition of U.S. Environmental Protection Agency "Guidelines on Air Quality Models, OAQPS 1.2-080" unless the Air Pollution Control Officer finds that such model is inappropriate for use. After making such finding the Air Pollution Control Officer may designate an alternate model only after allowing for public comment, and only with concurrence of the U.S. Environmental Protection Agency. Credit shall not be given for stacks higher than that dictated by good engineering practice. All modeling costs associated with the siting of a stationary source shall be borne by the applicant.

C. **PRELIMINARY DECISION**: Except as provided in Section 523.1 D., following acceptance of an application as complete, the Air Pollution Control Officer shall perform the evaluations required to determine compliance with all applicable district rules and regulations and make a preliminary written decision as to whether a permit to construct

should be approved, conditionally approved, or denied. When the District is the CEQA Lead Agency for a project, the Air Pollution Control Officer shall not issue a preliminary decision until the draft Environmental Impact Report or Negative Declaration is available for public review. The decision shall be supported by a succinct written analysis.

1. The Air Pollution Control Officer shall transmit to the California Air Resources Board and the U.S. Environmental Protection Agency its preliminary written decision and analysis for sources subject to Sections 523.3 A., 523.3 B., 523.3 C., and 523.3 F., no later than the date of publication as required in Section 523.4 D. For initial permits to operate, renewal of permits, significant and minor permit modifications, and reopenings for cause of sources subject to the requirements of Title V of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.), and pursuant to Rule 522, TITLE V -FEDERAL OPERATING PERMIT PROGRAM, the proposed decision, analysis, public notice, and draft permit if applicable, shall be sent to the U.S. Environmental Protection Agency for a 45 day review period.

D. **PUBLICATION AND PUBLIC COMMENT**: Except as provided in Section 523.1 K., within ten calendar days following a preliminary decision pursuant to Section 523.3, Standards, of this rule, the Air Pollution Control Officer shall publish in at least one newspaper of general circulation in the District a notice stating the preliminary decision of the Air Pollution Control Officer, noting how the pertinent information can be obtained, and inviting written public comment for a 30-day period following the date of publication. For initial permits to operate, renewal of permits, significant permit modifications, and reopenings for cause of sources subject to Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, public notice shall be given pursuant to the requirements of that rule.

E. **PUBLIC INSPECTION**: Except as provided in Section 523.1 D., the Air Pollution Control Officer shall make available for public inspection at the District's office the information submitted by the applicant and the Air Pollution Control Officer's analysis no later than the date the notice of the preliminary decision is published, pursuant to Section 523.4 D. Information submitted which contains trade secrets shall be handled in accordance with Section 6254.7 of the California Government Code and relevant sections of the California Administrative Code. Further, all such information shall be transmitted no later than the date of publication to the California Air Resources Board and the U.S. Environmental Protection Agency regional office, and to any party which requests such information. For initial permits to operate, renewal of permits, significant permit modifications, and reopenings for cause of sources subject to Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, written notice, the proposed permit, and upon request, the District's analysis, shall be provided to interested parties or agencies pursuant to the requirements of that rule.

F. **AUTHORITY TO CONSTRUCT, FINAL ACTION**:

1. Within 180 days after acceptance of an application as complete, the Air Pollution Control Officer shall take final action on the application after considering all written comments.

2. Notwithstanding this 180-day limit, the Air Pollution Control Officer shall not take final action for any project for which an Environmental Impact Report (EIR) or a Negative Declaration is being prepared until a final EIR for that project has been certified or a Negative Declaration for that project has been approved, and the Air Pollution Control Officer has considered the information in that final EIR or Negative Declaration. The Air Pollution Control Officer shall take final action on the application within whichever of the following periods of time is longer:

a. Within 180 days after the certification of the final EIR or approval of the Negative Declaration, or

b. Within 180 days of the date on which the application was determined complete by the Air Pollution Control Officer.

3. Except as provided in Section 523.1 D., the Air Pollution Control Officer shall provide written notice of the final action to the applicant, the U.S. Environmental Protection Agency, and the

California Air Resources Board, and shall publish such notice in a newspaper of general circulation and shall make the notice and all supporting documents available for public inspection at the District's office.

G. **REQUIREMENTS, AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE**:

1. General Conditions: As a condition for the issuance of an authority to construct and a permit to operate, the Air Pollution Control Officer shall require that the emissions unit and stationary source, and any emissions units which provide offsets, be operated in the manner stated in the application in making the analysis required to determine compliance with this rule, and as conditioned in the authority to construct.

2. Emissions Limitations: All of the following emissions limitations shall be included on the authority to construct and permit to operate, if applicable:

a. The authority to construct and permit to operate shall include emission limitations which reflect Best Available Control Technology. Such condition(s) shall be expressed in a manner consistent with testing procedures, such as ppmv NOx, g/liter VOC, or lbs/hr.

b. A quarterly emissions limitation for each affected pollutant for which offsets are being provided pursuant to Section 523.3 B.1., shall be contained in the authority to construct and permit to operate.

c. A daily emission limitation shall be contained in the authority to construct and permit to operate for all affected pollutants for which offsets are not being provided pursuant to Section 523.3 B.1., or when required to be consistent with ambient air quality standards.

d. Electrical power plants shall also contain a quarterly emissions limitation for operation of increased power plant operation needed to compensate for reduced operation at other power plant(s) within the District due to

emergency breakdown, pursuant to Rule 516, UPSET CONDITIONS, BREAKDOWN, OR SCHEDULED MAINTENANCE, and regularly scheduled maintenance.

e. Permits to operate for sources subject to the requirements of Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, shall contain all applicable federal requirements in addition to the applicable limitations of (a), (b), (c), and (d), above.

3. Design, Operational, or Equipment Standards: If the Air Pollution Control Officer determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of a numerical emission standard infeasible, the Air Pollution Control Officer may instead prescribe a design, operational, or equipment standard. In such cases, the District shall make its best estimate as to the emission rate that will be achieved and shall specify that rate in required submissions to the U.S. Environmental Protection Agency. Any permits issued without an enforceable numerical emission standard must contain enforceable conditions which assure that the design characteristics or equipment will be properly maintained, or that the operational conditions will be properly performed, so as to continuously achieve the assumed degree of control.

4. Offsets:

a. Except as provided in Section 523.4 G.4.b., below, the operation of any emissions unit or stationary source which provides offsets shall be subject to enforceable permit conditions, containing specific emissions and operational limitations, to ensure that the emission reductions shall be provided in accordance with the provisions of this rule and shall continue for the reasonably expected life of the proposed emissions unit or stationary source.

b. Where the source of offsets is not required to obtain an authority to construct or a permit

to operate pursuant to Rule 501, GENERAL PERMIT REQUIREMENTS, and Rule 524, EMISSION

REDUCTION CREDITS, a written contract or a functional equivalent as determined by the Air Pollution Control Officer shall be required between the applicant and the owner or operator of such source, which contract, by its terms, shall be enforceable by the Air Pollution Control Officer. For sources subject to federal NSR requirements, in the absence of federally enforceable conditions, the execution of a source specific SIP revision is required.

c. An internal emission offset will be considered enforceable if it is made a State Implementation Plan (SIP) requirement by inclusion as a condition of the new source permit and the permit is forwarded to the U.S. Environmental Protection Agency.

d. Except as provided in Section 523.4 G.4.b., external offsets must be made enforceable either by revision of an offsetting source's authority to construct and permit to operate or by submittal of a SIP revision to U.S. Environmental Protection Agency prior to the operation of the emissions unit. The revised permit shall be forwarded to the U.S. Environmental Protection Agency. The SIP revision submittal shall be submitted to the California Air Resources Board to be forwarded to the U.S. Environmental Protection Agency as part of the State Implementation Plan.

e. A violation of the emission limitation provisions of any contract pursuant to 523.4 G.4.b., above, shall be a violation of this rule by the applicant.

f. The operation of any emissions unit or stationary source which uses offsets provided by another emissions unit or stationary source shall be subject to enforceable permit conditions, containing specific emissions and operational limits, to ensure that the emission reductions are used in accordance with the provisions of District rules and shall continue for the reasonably expected life of the proposed emissions unit or stationary source.

g. For sources subject to federal requirements, the permanence of emissions reductions may be demonstrated by federally enforceable changes in source permits or applicable District regulations to reflect a reduced level of allowable emissions.

H. **ISSUANCE, PERMIT TO OPERATE**: The Air Pollution Control Officer shall issue a permit to operate an emissions unit subject to the requirements of this rule if it is determined that any offsets required as a condition of an authority to construct or amendment to a permit to operate will commence not later than the initial operation of the new or modified source, and that the offsets shall be maintained throughout the operation of the new or modified source which is the beneficiary of the offsets. Further, the Air Pollution Control Officer shall determine that all conditions specified in the

authority to construct have been complied with or will be complied with by the dates specified on the authority to construct. Such applicable conditions shall be contained in the permit to operate. Where a new or modified stationary source is, in whole or in part, a replacement for an existing stationary source on the same property, the Air Pollution Control Officer may allow a maximum of 90 days as a startup period for simultaneous operation of the existing stationary source and the new source or replacement. For initial permits to operate, renewal of permits, significant permit modifications, and reopenings for cause of sources subject to Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, permit issuance shall comply with the requirements and procedures of that rule.

I. **REGULATIONS IN FORCE GOVERN**: An authority to construct shall be granted or denied based on Best Available Control Technology and offset requirements of Sections 523.3 A. and 523.3 B., in force on the date the application is deemed complete as defined in Section 523.2 K. In addition, the Air Pollution Control Officer shall deny an authority to construct for any new stationary source or modification, or any portion thereof, unless:

l. Compliance with District Rules: 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. Certification of Compliance: The owner or operator of the proposed new or modified source has certified that all existing major stationary sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California which are subject to emission limitations are in compliance, or on an expeditious schedule for compliance, with all applicable emission limitations and standards.

J. **CALCULATION OF EMISSIONS - BACT**: The emissions change for a new or modified emissions unit shall be calculated by subtracting historic actual emissions from proposed emissions. Calculations shall be performed separately for each emissions unit for each calendar quarter.

K. **CALCULATION OF EMISSIONS - OFFSETS TRIGGER FOR ROC, NOX AND CO**: The potential to emit for each calendar quarter for a stationary source shall be the sum of the potential to emit, including fugitive emissions, for all emissions units based on current permits to operate and authorities to construct where permits to operate have not been issued, the pending application and all banked emission reduction credits.

L. **CALCULATION OF EMISSIONS - OFFSET TRIGGER FOR SOX AND PM10**: Except as provided in Sections 523.4 L.1., and 523.4 L.2., the cumulative emissions increases for each calendar quarter for a stationary source shall be the sum of emissions from Sections 523.4 L.3., 523.4 L.4., and 523.4 L.5 for each calendar quarter, expressed in terms of pounds per day.

1. An application for a modification, deemed complete after **April 26, 1994**, to an emissions unit or stationary source, constructed or whose application is deemed complete prior to **April 26, 1994**, and which had provided full offsets for total suspended particulate matter emissions occurring after December 31, 1976 but before **April 26, 1994**, those total suspended particulate matter emissions shall not be recalculated as PM10. However, all subsequent increases in PM10 emissions must be offset.

2. Except as provided in Section 523.4 L.5., any emissions increase represented by an authority to construct or permit to operate which has been cancelled or has expired and any emission reduction credits surrendered to the District shall not be included in the cumulative emissions increase calculation pursuant to Section 523.4 M.

3. The potential to emit for all emissions units installed after December 31, 1976 based on current permits to operate or authorities to construct where permits to operate have not been issued, including the pending application being reviewed.

4. All emission increases from the modification to emissions units installed prior to December 31, 1976 and modified after December 31, 1976 as determined by procedures specified in Section 523.4 K. or procedures specified in Rule 523, at the time of modification.

5. Emission reduction credits obtained pursuant to Rule 524, EMISSION REDUCTION CREDITS, after December 31, 1976, from emissions units installed after December 31, 1976.

M. **CALCULATION OF EMISSIONS - OFFSETS GENERAL**: The emissions change for a new or modified emissions unit shall be calculated by subtracting historic potential emissions from proposed emissions. Calculations shall be performed separately for each pollutant and each emissions unit for each calendar quarter. Negative emissions changes shall be processed under the procedures specified in Rule 524, EMISSION REDUCTION CREDITS, and Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, for early Hazardous Air Pollutant reductions satisfying the requirements of Section 112(i)(5) of the Federal Clean Air Act as amended in 1990.

N. **CALCULATION OF EMISSIONS - OFFSETS REQUIRED FOR ROC, NOX AND CO**: The cumulative net emissions increase pursuant to Section 523.4 M., for a stationary source shall be the sum of emissions from each of the following for each calendar quarter expressed in terms of pounds per quarter.

1. The potential to emit including associated fugitive emissions, not previously offset, for all emissions units installed after **April 26, 1994**, based on current permits to operate and authorities to construct, where permits to operate have not been issued, and the pending application.

2. All emission increases, including associated fugitive emissions, not previously offset, from the modification to emissions units installed before **April 26, 1994**, but modified after **April 26, 1994**, as determined by procedures specified in 523.4 M., or pursuant to calculation procedures specified in

Rule 523, NEW SOURCE REVIEW, at the time of the modification.

Any emissions increase represented by an authority to construct or permit to operate which has been cancelled or has expired shall not be included in the cumulative emissions increase calculation.

O. **CALCULATION OF EMISSIONS - OFFSETS REQUIRED FOR SOX AND PM10:** The cumulative net emissions increase pursuant to Section 523.4 M., for a stationary source shall be the sum of emissions from each of the following for each calendar quarter expressed in terms of pounds per quarter.

1. The potential to emit including associated fugitive emissions, not previously offset, for all emissions units installed after **April 26, 1994**, based on current permits to operate or authorities to construct where permits to operate have not been issued, including the pending application being reviewed.

2. All emission increases including associated fugitive emissions, not previously offset, from the modification to

emissions units installed before **April 26, 1994**, but modified after **April 26, 1994**, as determined by procedures specified in Section 523.4 M., or pursuant to calculation procedures specified in Rule 523, NEW SOURCE REVIEW, at the time of the modification. Any emissions increase represented by an authority to construct or permit to operate which has been cancelled or has expired shall not be included in the cumulative emissions increase calculation.

P. **POWER PLANTS:** This section shall apply to all power plants proposed to be constructed in the District and for which a Notice of Intention (NOI) or Application for Certification (AFC) has been accepted by the California Energy Commission.

1. Within 14 days of receipt of a Notice of Intention, the Air Pollution Control Officer shall notify the

Air Resources Board and the California Energy Commission of the District's intent to participate in the Notice of Intention proceeding. If the District chooses to participate in the Notice of Intention proceeding, the Air Pollution Control Officer shall prepare and submit a report to the California Air Resources Board and the California Energy Commission prior to the conclusion of the non-adjudicatory hearing specified in Section 25509.5 of the California Public Resources Code. That report shall include, at a minimum:

a. A preliminary specific definition of Best Available Control Technology for the proposed facility;

b. 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;

c. 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 Notice of Intention.

2. Upon receipt of an Application for Certification for a power plant, the Air Pollution 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 a permit to construct had been received for the power plant. If the information contained in the Application for Certification does not meet the requirements of this rule, the Air Pollution Control Officer shall, within 20 calendar days of receipt of the Application for Certification, so inform the California Energy Commission, and the Application for Certification shall be considered incomplete and returned to the applicant for re-submittal.

3. The Air Pollution Control Officer shall consider the Application for Certification 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 a permit to construct.

4. The Air Pollution Control Officer may request from the applicant any information necessary for the completion of the determination of compliance review. If the Air Pollution Control Officer is unable to obtain the information, the Air Pollution Control Officer may petition the presiding Commissioner of the California Energy Commission for an order directing the applicant to supply such information.

5. Within 180 days of accepting an Application for Certification as complete, the Air Pollution Control Officer shall

make a preliminary decision on:

a. Whether the proposed power plant meets the requirements of this rule and all other applicable district regulations, and;

b. In the event of compliance, what permit conditions will be required including the specific Best Available Control Technology requirements and a description of required mitigation measures.

The preliminary written decision under Section 523.4 N.5., shall be treated as a preliminary decision under Section 523.4 C., of this rule, and shall be finalized by the Air Pollution Control Officer only after being subject to the public notice and comment requirements of Sections 523.4 C., and 523.4 D. The Air Pollution Control Officer shall not issue a determination of compliance for the power plant unless all requirements of this rule are met.

6. Within 240 days of the filing date, the Air Pollution Control Officer shall issue and submit to the California Energy Commission a determination of compliance or, if such a determination cannot be issued, shall so inform the California Energy Commission. A determination of compliance shall confer the same rights and privileges as an

authority to construct only when and if the California Energy Commission approves the Application for Certification, and the California Energy Commission certificate includes all conditions of the determination of compliance.

7. Any applicant receiving a certificate from the California Energy Commission pursuant to this section and in compliance with all conditions of the certificate shall be issued a permit to operate by the Air Pollution Control Officer. If subject to the requirements of Title V of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.), the applicant must comply with the

applicable requirements of Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM.

523.5 MONITORING AND RECORDS

A. **RECORDKEEPING**: The following records shall be maintained for five years and shall be provided to the Air Pollution Control Officer upon request.

1. Emergency Electrical Generating Equipment: Records of operation for maintenance purposes, for actual interruptions of power.

2. Portable and Temporary Equipment: Records of operating location and corresponding dates of operation.

B. **RECORDKEEPING FOR SOURCES SUBJECT TO RULE 522**: The recordkeeping requirements for sources subject to Rule 522, TITLE V - FEDERAL OPERATING PERMIT PROGRAM, shall include all of the requirements of that rule in addition to the separate recordkeeping requirements of applicable federal requirements.

c:RULE523E.D14

EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 524 EMISSION REDUCTION CREDITS

ADOPTED: April 26, 1994

INDEX

RULE 524

EMISSION REDUCTION CREDITS

524.1 GENERAL

A. **PURPOSE**: To provide an administrative mechanism for quantifying, adjusting and certifying surplus emission reductions for:

1. Later use as offsets pursuant to District, state or federal rules or regulations, or

2. Transfer to other sources as offsets pursuant to Rule 523, NEW SOURCE REVIEW.

B. **APPLICABILITY**: This rule shall apply to all emissions reduction credits for use within a stationary source or for transfer to other sources.

C. **EXEMPTION, NOTIFICATION REQUIREMENTS**: The requirements of Sections 524.4 D. and 524.4 E; relating to notification, publication, and public inspection of Preliminary Decisions; shall not apply if the application is for emission reduction credits less than the following per calendar quarter:

Affected Pollutant	**Emission Reduction Credits**
Reactive Organic Compounds	9,000 lbs/quarter
Nitrogen Oxides	9,000 lbs/quarter

Sulfur Oxides	9,000 lbs/quarter
PM10	7,200 lbs/quarter
Carbon Monoxide	49,500 lbs/quarter

D. **EXEMPTION, CONCURRENT STATIONARY SOURCE MODIFICATION**: Pursuant to Section 40709(c) of the California Health and Safety Code, need not be banked prior to use as offsets, if those reductions satisfy all criteria established by this rule, Rule 501, GENERAL PERMIT REQUIREMENTS, and Rule 523, NEW SOURCE REVIEW. For the purposes of this exemption, "concurrent stationary source modification" means the simultaneous modification of emission units and/or the addition of new emissions units to a stationary source with all emission reductions occurring after the issuance of the Authority to Construct authorizing such reductions, but before the start of operation of the new or modified emissions unit(s) with emission increases.

E. **EXEMPTION, SHUTDOWNS AND CURTAILMENTS**: The provisions of Section 524.2 A.4.a and 524.3 D.3. shall not apply to emission reduction credits from shutdowns or curtailments provided:

1. The shutdowns or curtailment occurred after December 31, 1987 for State requirements, and November 15, 1990 for federal requirements applicable to major stationary sources and major modifications; or

2. The shutdowns or curtailments are documented in District permitting actions pursuant to Rule 523, NEW SOURCE REVIEW, for shutdowns or curtailments which occurred prior to **April 26, 1994**; and

3. The emissions from the emissions unit to be shutdown or curtailed are included in the District's 1987 emission inventory for State requirements, and the 1990 base-year emission inventory for federal requirements applicable to major stationary sources and major modifications; and

4. The District is notified before **October 26, 1994**, of shutdowns and curtailments which occurred before **April 26, 1994**.

524.2 DEFINITIONS: Unless otherwise defined below, the terms used in this rule are defined in Rule 523, NEW SOURCE REVIEW.

A. **ACTUAL EMISSIONS REDUCTIONS** - Reductions of emissions from an emissions unit. Actual emission reductions shall be calculated pursuant to Section 524.4 H., Calculation of Emissions, and meet all of the following criteria:

1. The emissions reductions shall be real, enforceable, quantifiable, and permanent.

2. The emissions reductions shall be surplus emissions reductions in excess of any emissions reduction which is:

a. Required or encumbered by any laws, rules, regulations, agreements, or orders, and unless such law by its terms states that the emission reduction shall be considered surplus, or

b. Attributed to a control measure noticed for workshop in the District, or proposed or contained in a State Implementation Plan, or

c. Proposed or contained in an adopted District Air Quality Attainment Plan (AQAP) for attaining the annual reductions required by the Clean Air Acts.

3. Except for control measures which are federally mandated or otherwise required or encumbered by law, emissions reductions attributed to a proposed control measure contained in the District AQAP may be re-eligible as surplus emission reductions only if such control measure has been removed from the AQAP during the next AQAP update.

4. Source shutdowns and curtailments may not be given emission reduction credit in the case of non-attainment pollutants, including precursors, if they occurred prior to the date of application unless:

a. The shutdown or curtailment was claimed by the affected facility as a credit within 180 days of the last date of operation. Shutdown or curtailment credits not claimed within 180 days shall pass to the Priority Reserve Bank as provided in Rule 525, PRIORITY RESERVE, and

b. For stationary sources or modifications subject to federal requirements for major stationary sources or major modifications, the crediting of shutdown emissions complies with the most recent emission trading policy of the U.S. Environmental Protection Agency; and

c. The proposed new source or modification is a replacement, and the shutdown or curtailment occurred after August 7, 1977, or

d. The proposed new source or modification does not meet the U.S. Environmental Protection Agency definition of a major source or major modification; the shutdown or curtailment occurred after August 7, 1977; the shutdown or curtailment was document by a concurrent application to the District for emissions reduction; and the emission reduction credit is used at the same stationary source.

B. **BANKING** - The system of quantifying, adjusting, certifying, recording, and storing ERC's for future use and transfer. This system shall be called the Emission Reduction Credit Bank (ERC Bank).

C. **BEST AVAILABLE RETROFIT CONTROL TECHNOLOGY (BARCT)** - an emission limitation that is based upon the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source. The criteria for BARCT are specified in "California Clean Air Act Guidance for the Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology", California Air Resources Board, April 1990.

D. **CERTIFIED** - Emission reduction credits which have been evaluated under the requirements of this rule and other applicable District, state and federal rules and regulations and which have been authorized by the Air Pollution Control Officer.

E. **ELECTRICAL POWER PLANTS** - An electrical generating facility located within the District that regularly generates electricity so the local electric utility can provide its daily energy requirements. Emergency electrical generating equipment are not considered electrical power plants.

F. **EMISSION REDUCTION CREDITS (ERC) -** Reductions of actual emissions from an emission unit that are registered with the District in accordance with the requirements of this rule.

G. **EMISSIONS UNIT** - An identifiable operation or piece of process equipment such as an article, machine, or other contrivance which controls, emits, may emit, or results

in the emissions of any affected air pollutant, regulated air pollutant or Hazardous Air Pollutant (HAP), directly or as fugitive emissions. An emissions unit shall not include the open burning of agricultural biomass. With the exception of early reductions of Hazardous Air Pollutants in accordance with Section 112(i)(5) of Title V of Federal Clean Air Act as amended in 1990, reduction credits may only be obtained for reductions in affected pollutants.

H. **ENFORCEABLE** - Verifiable and legally binding. Enforceable, for the purposes of federal requirements, means all federally enforceable limitations and conditions enforceable by the administrator, including: NSPS; NESHAP; requirements within any applicable State Implementation Plan; any permit requirement established pursuant to 40 CFR 52.21, 51.160-166; or federal operating permit requirements.

I. **ERC CERTIFICATE** - A document certifying title to a defined quantity and type of ERC's issued by the District to the owner(s) identified on the Certificate.

J. **HISTORIC ACTUAL EMISSIONS** -

1. For applications for emissions reductions deemed complete after the **April 26, 1994**, "historic actual emissions" are the actual emissions for the existing emissions unit averaged over the consecutive two year period immediately preceding the date of application for emission reduction credits. If the last two years are unrepresentative of normal source operations as determined by the Air Pollution Control Officer, then any two consecutive years of the last five years that represent normal source operation may be used.

2. For applications for emissions reductions deemed complete prior to the **April 26, 1994**, "historic actual emissions" are either as calculated in Subsection 524.2 J.1., above, or, at the option of the applicant and with the approval of the Air Pollution Control Officer, are the actual emissions for the existing emissions unit averaged over the three year period immediately preceding the date of application for emission reduction credits.

3. If, at any time during the two or three year period, actual emissions exceeded allowed or permitted emission levels, then actual emissions shall be reduced to reflect emission levels that would have occurred if the unit were in compliance with all applicable limitations and rules.

4. Where an emissions unit has been in operation for less than two years, a shorter averaging period of at least one year may be used, provided that the averaging period is representative of the full operational history of the emissions unit. If less than one year has passed since the date of issuance of the permit to operate then the historic actual emissions shall be zero.

K. **NON-PERMITTED EMISSIONS** - Those emissions of an affected pollutant which are not required to obtain a permit pursuant to Rule 501, GENERAL PERMIT REQUIREMENTS. Non-permitted emissions may include emissions from mobile sources, indirect sources, and exempt equipment.

L. **OFFSET** - The use of an emission reduction credit to compensate for an emission increase of an affected pollutant from a new or modified source subject to the requirements of Rule 523, NEW SOURCE REVIEW.

M. **PARCEL(S)** - A legally identifiable piece of land as registered with the County Assessors's office for property tax purposes.

N. **PERMANENT** - Only permanent reductions in emissions can qualify for emission reduction credit. Permanence may generally be assured for sources subject to federal requirements by requiring federally enforceable changes in source permits, or applicable state regulations to reflect a reduced level of allowable emissions.

O. **PROPOSED EMISSIONS** - Emissions based on the potential to emit for the new or modified emissions unit.

P. **PORTABLE EQUIPMENT** - Equipment which is periodically relocated and is not operated more than a total of 180 days at any one location in the District within any continuous 12 month period.

Q. **QUANTIFIABLE** - Ability to estimate emission reductions in terms of both their amount and characteristics. The same method of estimating emissions should generally be used to quantify the emission levels before and after the reduction.

R. **QUARTERLY** - Calendar quarter beginning in January, April, July, and October.

S. **REAL** - Actually occurring, implemented, and not artificially devised.

T. **REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT)** - The lowest emission limitation that a particular source is capable of meeting by the application of emission control technology that is reasonably available considering technical and economic feasibility. The criteria for RACT are specified in "California Clean Air Act Guidance for the Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology", California Air Resources Board, April 1990.

U. **REGISTER** - The document that records all ERC deposits, withdrawals, transfers, and transactions.

V. **REPLACEMENT EQUIPMENT** -

1. Functionally Identical Replacement: The replacement of or modification of emission units(s) where the replacement unit serves the identical function as the unit(s) being replaced, and the maximum rating and the potential to emit any pollutant will not be greater from the new or modified emissions unit(s) than the replaced unit(s), when the emissions unit(s) are operated at the same permitted conditions and as if current BACT were applied. The Air Pollution Control Officer will determine, on a case-by-case basis, whether a project to replace an emissions unit in whole or part with functionally equivalent equipment is a routine repair, commonly made in the industry. Projects intended to extend the expected useful life of the unit may not be considered routine replacements.

2. Identical Replacement: The total or partial replacement of an emissions unit where the replacement is the same as the original unit in all respects except for serial number.

W. **SHUTDOWN** - The earlier of either the permanent cessation of emissions from a source or an emission unit or the surrender of that unit's or source's operating permit.

X. **TEMPORARY SOURCE** - Temporary emission sources such as pilot plants, and portable facilities which will be terminated or located outside the District after less

than a cumulative total of 90 days of operation in any 12 continuous months , and the emissions resulting from the construction phase of a new source.

Y. **TRANSFER** - The change in ownership of an ERC from one person or legal entity to another.

524.3 STANDARDS

A. **CERTIFICATION**: Only actual emission reductions shall be certified as ERC's. Such actual emission reductions shall meet the following requirements to be certified as ERC's.

1. Apply for emission reduction credits pursuant to Section 524.4 A., and

2. Receive written approval of the Air Pollution Control Officer, and

3. If the emission reduction is created from an emission unit where the demand for the services or product could shift to other similar sources in the District, submittal of data to document that such reductions will result in District-wide emission reductions may be required by the Air Pollution Control Officer. Such documentation must be approved by the Air Pollution Control Officer.

4. Emissions decreases shall be prescribed by enforceable emission limitations contained in authorities to construct and permits to operate, or result from the permanent surrender or the voiding of permits to operate.

B. **REEVALUATION**: Actual emission reductions calculated prior to **April 26, 1994**, shall be reevaluated under the requirements and procedures specified in this rule.

C. **NON-PERMITTED SOURCES**:

1. Except as provided in Section 524.3 C.2., non-permitted emissions units or stationary sources requesting emission reduction credits from such emissions units shall void the exemption from Rule 501, GENERAL PERMIT

REQUIREMENTS. Such sources shall not operate such emissions unit or stationary source without first obtaining a permit pursuant to Rule 501, GENERAL PERMIT REQUIREMENTS.

2. If state or federal law prohibits the District from requiring an authority to construct or a permit to operate pursuant to Rule 501, GENERAL PERMIT REQUIREMENTS, the applicant for emission reduction credits shall execute a legally binding contract with one or more owner(s) or operator(s) of the non-permittable emissions unit that ensures the sum of all emission reductions will be provided in accordance with the requirements of this rule, and will continue for the life of the stationary source using the credits or life of the credits as provided in the application. Such a contract shall be filed with the District and, by its terms, be enforceable by the Air Pollution Control Officer. For sources subject to federal NSR requirements, in the absence of federally enforceable permit conditions, the execution of a source specific SIP revision is required.

D. **SHUTDOWNS**: Except as provided in Section 524.1 E. shutdowns or curtailments occurring after the **April 26, 1994**, claimed for emission reduction credit shall comply with the following:

1. Applicants for emission reductions due to the shutdown of permitted or non-permitted emissions units shall demonstrate to the satisfaction of the Air Pollution Control Officer that such equipment will no longer be operated within the District.

2. Emission reductions from the shutdown of retail dry cleaners and retail gasoline stations shall be prohibited.

3. An application for emission reduction credits from the shutdown of emissions units or stationary sources shall be submitted within 180 days after the surrender of the permit to operate or for non-permitted sources the last date of operation of such emissions unit or stationary source.

E. **USE OF ERC'S, BANKING**: ERC's may be banked for later use as offsets. The name of the user shall be entered into the Register for the applicable ERC's. Except as provided in Section 524.3 G., 524.3 H., 524.3 I, and 524.3 J., such ERC's may not be returned to the bank following the start of operation of the stationary source or emissions unit using the ERC as offsets.

F. **USE OF ERC'S, OFFSETS**: ERC's may be used immediately as offsets. The ERC shall be entered into the Register along with the name of the user. Except as provided in Sections 524.3 G., 524.3 H., 524.3 I., and 524.3 J., such ERC's may not be returned to the bank following the start of operation of the stationary source or emissions unit using the ERC as offsets. ERC's may not be used to offset increases in toxic air contaminants.

G. **RETURNS, USE OF ERC'S FOR TEMPORARY STATIONARY SOURCES AND PORTABLE EQUIPMENT**: ERC's used as offsets for temporary stationary sources or emissions units or used as offsets for portable equipment shall be returned in full to the owner upon verification of shutdown of the temporary stationary source, emissions unit, or portable equipment by the Air Pollution Control Officer. ERC's must then be re-deposited in the Bank and re-entered into the Register by the owner, within 60 days.

H. **RETURNS, ISSUANCE OF PERMIT TO OPERATE**: If the applicant for a Permit to Operate requests a lowering of the quarterly emission limitation as a result of emissions testing conducted pursuant to an Authority to Construct and the requested new emissions limitation has been demonstrated as achievable by such emissions testing and will be continuously achieved, the difference in emission reductions credits necessary to offset the emissions unit pursuant to Rule 523, NEW SOURCE REVIEW, shall be re-deposited in the Bank and re-entered into the Register.

I. **RETURNS, USE OF ERC'S FOR ELECTRICAL POWER PLANTS**: ERC's may be used at electrical power plants to offset emission increases resulting from increased power plant operation needed to compensate for reduced operation at other electrical power plant(s) within the District, due to emergency breakdown, pursuant to Rule 516, UPSET and BREAKDOWN CONDITIONS, or regularly scheduled maintenance. ERC's shall be returned in full to the owner upon verification of return to normal operation of the using electrical power plant. ERC's shall be re-deposited in the Bank and re-entered into the Register. The application of the provisions of this Section shall be approved in writing by the Air Pollution Control Officer prior to use.

J. **RETURNS, ERC'S FROM THE PRIORITY RESERVE**: Emission Reduction Credits are returned after a being loaned in accordance with Rule 525, PRIORITY RESERVE, shall be returned to the originating Priority Reserve. Legal title to ERC's transferred to the ERC Bank from the Priority Reserve remains with the District and not the borrower.

524.4 ADMINISTRATIVE REQUIREMENTS

A. **APPLICATION PROCEDURES**:

1. Any person or entity, or an authorized agent, which owns or operates a source at which an eligible emission reduction has occurred or will occur may apply for an ERC certificate in accordance with the requirements of this rule.

2. The person or entity requesting the ERC certificate shall make an application on forms supplied by the District.

3. The application may be for reductions in one or more affected pollutants. The application shall contain sufficient information to allow for adequate evaluation of actual emission reductions.

4. Applicants may claim confidentiality for submitted information to the extent allowed and provided for by provisions of the Federal Clean Air Act and the Administrative Procedures of the California Government Code.

5. To verify emission reductions claimed in conjunction with an application for an ERC certificate, the District may require source tests by California Air Resources Board and/or U.S. Environmental Protection Agency approved methods, continuous monitoring, production records, fuel use records, or any other appropriate means.

B. **COMPLETE APPLICATION**:

1. The Air Pollution Control Officer shall determine whether the application for ERC is complete not later than 30 days after receipt of the application for ERC, or after such longer time as both the applicant and the Air Pollution Control Officer have agreed in writing. If the Air Pollution Control Officer determines that the application is not complete, the applicant shall be notified in writing of the decision specifying the information required. If specified information is not submitted by the applicant within 60 days from the notification from the District that the application is incomplete, the application shall be automatically canceled unless the applicant has requested an extension of time, in writing and

prior to the end of the 60 day period, from the Air Pollution Control Officer. The Air Pollution Control Officer may grant an extension of time not to exceed 90 days. If the application is for a shutdown or curtailment emission reduction credit, failure to provide the additional information or failure to request an extension of time shall result in those credits passing to the Priority Reserve Bank pursuant to Rule 525, PRIORITY RESERVE.

2. Upon receipt of any re-submittal of the application, a new 30-day period to determine completeness shall begin.

3. Completeness of an application or re-submitted application shall be evaluated on the basis of the information

requirements set forth in District regulations (adopted pursuant to Article 3, Sections 65940 through 65944 of Chapter 4.5 of Division l of Title 7 of the California Government Code) as they exist on the date on which the application or re-submitted application was received. The Air Pollution 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.

4. A fee shall be required pursuant to Rule 607, FEE SCHEDULES.

5. For offsets provided in accordance with Health and Safety Code Sections 41605.5, 42314.5, and 41865 concerning emission reductions from open field burning, an ERC application covering the total emission reductions necessary to offset stationary source emissions may be submitted at the time of application for an Authority to Construct. Applications for ERC's from agricultural burning shall not be required if such emissions are covered by an ERC obtained by the stationary source utilizing such emission reductions.

6. The applicant shall submit to the Air Pollution Control Officer records required pursuant to Section 524.5 A.

C. **PRELIMINARY DECISION**: Except as provided in Section 524.1 C., following acceptance of an application as complete, the Air Pollution Control Officer shall perform the evaluations required to determine compliance with all applicable District rules and regulations and make a preliminary written decision as to whether the emission reductions should be certified as an ERC. The decision shall be supported by a succinct written analysis.

D. **PUBLICATION AND PUBLIC COMMENT**: Except as provided in Section 524.1 C., within ten calendar days following a preliminary decision, the Air Pollution Control Officer shall publish, in at least one newspaper of general circulation in the District, a notice stating the preliminary decision of the Air Pollution Control Officer, noting how the pertinent information can be obtained, and inviting written public comment for a 30-day period following the date of publication.

E. **PUBLIC INSPECTION**: Except as provided in Section 524.1 C., the Air Pollution Control Officer shall make available for public inspection at the Air Pollution Control District's office the information submitted by the applicant and the Air Pollution Control Officer's analysis no later than the date the notice of the preliminary decision is published, pursuant to Section 404. Information submitted which contains trade secrets shall be handled in accordance with Section 6254.7 of the California Government Code and relevant sections of the California Administrative Code. Further, all such information shall be transmitted no later than the date of publication to the California Air Resources Board and the U.S. Environmental Protection Agency regional office, and to any party which requests such information.

F. **CERTIFICATION, FINAL ACTION**:

1. Within 180 days after acceptance of an application as complete, the Air Pollution Control Officer shall take final action on the application after considering all written comments.

2. Except as provided in Section 524.1 C., the Air Pollution Control Officer shall provide written notice of the final action to the applicant, the U.S. Environmental Protection Agency, and the California Air Resources Board, and shall publish such notice in a newspaper of general circulation and shall make the notice and all supporting documents available for public inspection at the District's office.

G. **WITHDRAWAL OF APPLICATION**: Withdrawal of an application for certification of an ERC by the applicant shall result in cancellation.

H. **CALCULATION OF EMISSIONS, GENERAL**: Calculations performed pursuant to procedures specified in this Section shall not conflict with the requirements of state law. The following procedures apply to the calculation of ERC's for all sources, with the exception of ERC's from the open burning of biomass:

1. Actual emission reductions from modifications to, or shutdowns of, existing emissions units shall be calculated for each calendar quarter by subtracting the proposed emissions from historical actual emissions. Any positive value shall qualify for conversion to an emission reduction credit.

2. Credits for particulate matter emission reductions shall be expressed in terms of PM10.

3. Credits for nitrogen oxides, reactive organic compounds, carbon monoxide, sulfur oxides and PM10 shall be quantified in terms of pounds of pollutants per quarter for each calendar quarter.

4. Actual emission reductions shall be adjusted to at least reflect emission rates achievable with reasonably available control technology (RACT) or best available retrofit control technology (BARCT), whichever results in the greatest adjustment.

I. **PRIORITY RESERVE ADJUSTMENT OF CALCULATED CREDITS:** Before the Air Pollution Control Officer may issue a certificate of ownership for any ERC's, the emission reductions calculated in Section 524.4 H. shall be adjusted five percent (5%). This 5% emission reductions captured by the ERC adjustment shall pass to the Priority Reserve Bank pursuant to Rule 525, PRIORITY RESERVE.

J. **REGISTRATION**:

1. Following certification of emission reduction credits and verification that the proposed emission reductions have been implemented, the Air Pollution Control Officer shall issue an original ERC Certificate to the owner(s) by certified mail or in person. The issuance of an ERC certificate shall not constitute evidence of compliance with the rules and regulations of the District, or a representation or assurance to the recipient upon which reliance is authorized or intended that the ERC represented by the ERC certificate are available from the District ERC bank.

2. The ERC Certificate shall contain:

a. Certificate number, and

b. Date of issuance, and

c. Street address and Assessor Parcel Number (APN) of site creating the surplus emissions reductions for which the ERC Certificate is issued, and

d. Signature of the responsible District official, and

e. The name of the owner shall be typed on the certificate and the owner shall sign the certificate. If the owner is a public or private business entity, a person authorized to sign on behalf of the owner shall sign the certificate, and

f. Conditions of operation or use, including the life of the credit.

3. A copy of each ERC Certificate issued shall be maintained in the Bank Register.

4. Multiple owners of emission reduction credits shall be separated according to agreements, filed with the District, between the owners with one ERC Certificate issued to each owner for their respective portion.

5. Upon transfer of ERC's between parties, the transferor's ERC certificate, and a copy of an agreement, signed by the transferor, authorizing and memorializing the transfer of the ERC to the transferee must be surrendered to the Air Pollution Control Officer by the transferee, within 30 days of the date of the writing authorizing the transfer of the ERC's. Upon receipt and review of said documents the Air Pollution Control Officer shall issue a new ERC certificate in the name of the transferee. If fewer than all the transferor's ERC's are transferred, a new certificate shall be issued to the transferor showing the remaining ERC's. The District may refuse to recognize any transfer of ERC's that does not comply with the requirements of this section.

6. The original ERC Certificate surrendered by the registered owner shall be filed in the register and marked with the date of issuance of the new ERC Certificate(s), the number of credits transferred, and the new ERC Certificate number(s). If fewer than all ERC's are transferred, the new balance in the name of the original owner shall be entered in the register.

7. Prior to the issuance of a permit allowing the use of ERC's, the registered owner shall surrender the ERC Certificate to the Air Pollution Control Officer. The certificate surrendered by the owner shall be filed in the register and marked with the permit number, street address and APN of site of use, and the name of the owner using the ERC's. If a balance of ERC's remain, a new ERC Certificate shall be issued to the original owner and the original ERC Certificate shall be filed in accordance with the provisions of this rule.

8. Unless such records and information were previously submitted to the Air Pollution Control Officer, each ERC transaction must be accompanied by submittal of the information of Section 524.5 A.

K. **ERC REGISTER:**

1. The register shall contain the following information for each ERC Certificate issued by the Air Pollution Control Officer:

a. Certificate number, and

b. Date of issuance, and

c. Name and address of the registered owner, and

d. Street address and APN of site creating the surplus emissions reductions for which the ERC Certificate is issued, and

e. Number of ERC's registered.

2. Upon notice of a transfer of an ERC Certificate the Air Pollution Control Officer shall enter the following information in the register:

a. Original ERC Certificate number, and

b. New ERC Certificate number, or street address, APN, and permit numbers at which the ERC's are being used, and

c. Name and address of new owner(s), if any, and

d. Number of ERC's being transferred.

3. Upon use of the ERC's for offsets, the following information shall be entered in the register:

a. All information required in Section 524.4 K.2, and

b. Date ERC Certificate was surrendered to the Air Pollution Control Officer, and

c. Permit numbers to which ERC's are being applied, and

d. Name and address of ERC user, and

e. Name, if any, address, and APN of site where ERC's are being used as offsets, and

f. Number of ERC's being used for offsets.

L. **MORATORIUM**: If the District Air Pollution Control Board determines, after review of periodic reports prepared by the Air Pollution Control Officer, that additional emission reductions are necessary, a moratorium on withdrawals may be imposed. Prior to imposing a moratorium, the Air Pollution Control Officer shall provide a notice of the date of the meeting of the District Air Pollution Control Board to consider issuance of a moratorium to owners of ERC and other interested parties. The moratorium shall be lifted upon determination that additional emission reductions are not necessary by the District Air Pollution Control Board. Except as provided in Section 524.2 A.2, after the issuance of an ERC Certificate, subsequent changes in regulations, except Regulation 5, shall not reduce or eliminate the deposit.

524.5 **MONITORING AND RECORDS**

A. **RECORDKEEPING:**

1. Cost of Offsets: Each applicant seeking to deposit, withdrawal, or transfer Emission Reduction Credits shall, as applicable, report to the District each emissions trading transaction; the amount of emissions for offsets purchased, by pollutant; the year the offset transaction occurred; and the total cost, by pollutant, of the offsets purchased, and other such information as may be required to perform the cost analysis required by Section 40709.5(e) of the California Health and Safety Code. This information shall be part of the public record.

ADOPTED: April 26, 1994

c:R524ERC.ED6

RULE 525 PRIORITY RESERVE

ADOPTED: April 26, 1994

INDEX

525.1 GENERAL

A. **PURPOSE:** The Priority Reserve Bank is established within the Emission Reduction Bank for the following purposes:

1. Use in achieving the emissions reduction rate of progress requirements of the District Air Quality Attainment Plan or State Implementation Plan; and

2. Use in mitigating emission increases by stationary sources, represented by permit applications for new or modified permits, in the period of July 1, 1991, through January 1, 1993, and the period of January 1, 1993, through **April 26, 1994**, to the extent mitigation was required by law and was not obtained under the adopted District Rules and Regulations; and

3. Use in providing loans of emission reductions for use as offsets for new or modified stationary sources that are essential public services.

B. **APPLICABILITY:** Emission reduction loans from the Priority Reserve shall be made to the extent that banked emission reductions are available and the transfer is allowed pursuant to Section 525.3 D., to publicly owned or non-profit essential public services. The applicant must have secured all potential offsets available by modifying emission units at the same stationary source. Disbursement of emission reduction loans shall not be provided for on-site power generation. Disbursement of emission reduction loans shall not be provided for emissions units not necessary to provide or maintain public health and safety. Disbursement of emission reduction loans must be made with banked emission reductions that are surplus to mandated reductions - the emission reductions required to meet rate of progress plan commitments and to mitigate emission increases occurring prior to **April 26, 1994**.

525.2 DEFINITIONS: Unless otherwise defined below, the terms used in this rule are defined in Rule 523, NEW SOURCE REVIEW, and Rule 524, EMISSIONS REDUCTION CREDITS.

A. **CLEANUP OPERATION** - Operation to remove environmental contaminants from soil or water.

B. **ESSENTIAL PUBLIC SERVICES** - Except as provided in Section 525.1 B., the following sources shall be considered essential public services.

1. Sewage treatment operations which are publicly owned and operated consistent with the approved General Plan; or

2. Prison, jail, correctional facility; or

3. Police or fire fighting facility; or

4. School or hospital; or

5. Landfill gas control or processing systems; or

6. Water delivery operations which are publicly owned and operated consistent with the approved General Plan; or

7. Cleanup or remediation operations mandated by Regional Water Quality Control Board, California Department of Health Services, Environmental Protection Agency or any other state or federal law, rule or regulation.

C. **PRIORITY RESERVE BANK** - A depository of emission reductions used by the District toward achieving mandated emission reductions or for loans to applicable essential public services for use as offsets pursuant to Rule 523, NEW SOURCE REVIEW.

D. **QUARTERLY** - Calendar quarter beginning in January, April, July, and October.

525.3 STANDARDS

A. **CRITERIA:** The Priority Reserve Bank shall be supported by actual emission reductions which are certified as emission reduction credits (ERC) pursuant to Rule 524, EMISSION REDUCTION CREDITS.

B. **PRIORITY RESERVE BANK:** Support for the Priority Reserve Bank shall include, but not be limited to:

1. The adjustment on all emission reductions in accordance with Rule 524, EMISSION REDUCTION CREDITS.

2. Shutdowns or modifications of stationary sources or emission units not claimed for emission credits by the facility as provided in Rule 524, EMISSION REDUCTION CREDITS.

C. **ALLOCATION FOR ESSENTIAL PUBLIC SERVICES:** On or before December 31st of each year, the Air Pollution Control Officer shall determine the amount of emission reductions from the Priority Reserve Bank to be made available for withdrawal and application to essential public services for the upcoming year. Additional emission reductions not included in the yearly determination may be added, if the Air Pollution Control Officer determines there is a need, to the previously established quarterly allocations. Allocated emissions reductions shall be made available on the first Wednesday of each calendar quarter. The amount available shall never exceed the emission reductions in the Priority Reserve Bank. The Air Pollution Control Officer may reserve a portion or all of the available emission reductions in the Priority Reserve Bank to meet mandated emission reduction requirements. In the event the Priority Reserve Bank lacks sufficient emission reduction credits to offset emission increases for eligible stationary sources or emission units, or such emissions have not been allocated, the owner or operator of the new or modified stationary source or emission unit shall be responsible for obtaining the offsets required.

D. **DISBURSEMENT:** A loan of emission reductions from the Priority Reserve Bank shall be based upon issuance of a final action on an Authority to Construct, pursuant to Rule 523, NEW SOURCE REVIEW, and no later than 15 days following the end of the calendar quarter or other schedule deemed applicable by the Air Pollution Control Officer.

1. Legal Title to the emission reductions borrowed from the Priority Reserve Bank remains with the District. An ERC certificate of ownership will not be issued for emission reductions loaned from the Priority Reserve Bank.

2. A borrower of emission reductions from the Priority Reserve Bank will be issued an ERC Bank account number and the borrowed emission reductions will be credited to that account.

3. Upon application by the borrower for an authority to construct and permit to operate the emission reductions in the borrower's account will be credited to the permit.

4. The District will enter the permit number and the amount of emission reductions credited from the borrower's account on the permit and in the borrower's account history.

5. Disbursement of emission reductions from source shutdowns and curtailments shall be in accordance with the most current U.S. Environmental Protection Agency emissions trading policy and applicable federal regulations.

E. **PRIORITY RESERVE PRIORITIZATION:** Priority shall be given to mandated emission reductions, the emission reductions required to meet rate of progress plan commitments and to mitigate emission increases occurring prior to **April 26, 1994**. To the extent surplus emission reductions are available, priority for essential public services shall be given to applications to the Priority Reserve Bank with the earliest date an application is deemed complete. The District Air Pollution Control Board may determine that a specific project shall be given priority for access to the Priority Reserve based on public health or safety, regardless of the application submittal date.

F. **RESERVING PRIORITY RESERVE CREDITS:** Sources may, if the Air Pollution Control Officer determines a need, reserve Priority Reserve credits for up to three years to allow multi-year projects to be planned. The sum of such credits shall amount to no more than 25 percent of each calendar quarter allocation for the Priority Reserve for those three years.

G. **UNUSED CREDITS:** During any calendar quarter for which there are fewer requests for emission credits in the Priority Reserve Bank than are available for the calendar quarter allocation, the credits not allocated shall be made available for use the following calendar quarter.

H. **TRANSFERS:** Priority Reserve Bank credits shall not be transferable from one person to another.

I. **RETURNS:** Emission reductions shall be returned in full from the borrower's account to the Priority Reserve Bank under any of the following conditions:

1. Construction is not complete within two years of date of issuance of the loan.

2. Voluntary surrender or revocation of an Authority to Construct or Permit to Operate.

3. Emission reduction credits are issued to the stationary source pursuant to Rule 524, EMISSION REDUCTION CREDITS.

J. **MORATORIUM:** Except as provided in Section 525.3 I., a loan of emission reduction credits shall exist for the life of the emissions unit using such credits. If the District Air Pollution Control Board determines that additional emission reductions are necessary, a moratorium on loans may be imposed. Prior to issuing a moratorium, the Air Pollution Control Officer shall provide a notice of the date of the meeting of the District Air Pollution Control Board to consider such actions. The moratorium shall be lifted upon determination that additional emission reductions are not necessary by the District Air Pollution Control Board.

525.4 ADMINISTRATIVE REQUIREMENTS

A. **CALCULATION PROCEDURES:** Emission reductions deposited in the Priority Reserve Bank shall be quantified pursuant to calculation procedures specified in Rule 524, EMISSION REDUCTION CREDITS.

B. **EMISSION REDUCTION CREDITS:** Any stationary source which holds Emission Reduction Credits for the affected pollutant requested in this application or requested in prior applications, must first use these to replenish credits previously obtained or for the pending application, prior to being allowed access to the Priority Reserve Bank.

525.5 MONITORING AND RECORDS

A. **RECORDKEEPING**

1. Each stationary source shall maintain a cumulative total of emission credits obtained from the Priority Reserve Bank.

2. The District shall maintain records of the source and amount of emission reductions obtained for deposit in the Priority Reserve Bank, and transfers of these credits to applicants and to satisfy mandated emission reduction measures.

ADOPTED: April 26, 1994

c:R525PR.ED3

El Dorado County Air Pollution Control District

REGULATION
IX
EMISSION STATEMENTS FROM FACILITY OWNERS/OPERATORS
PURSUANT TO THE CLEAN AIR ACT AMENDMENTS OF 1990

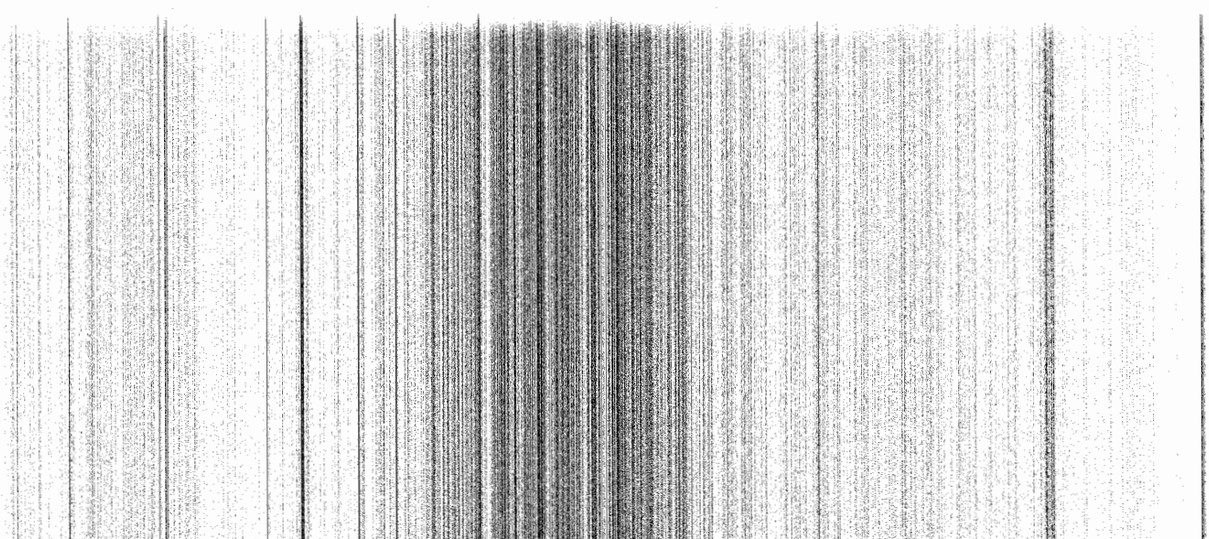
Rule 1000 Emission Statement

Upon the request of the Air Pollution Control Officer (APCO) and as directed by the APCO, the owner or operator of any source operation which emits or may emit oxides of nitrogen or reactive organic gas shall provide the APCO with a written statement, in such form as the APCO prescribes, showing actual emissions of oxides of nitrogen and reactive organic gas from that source. At a minimum the emission statement shall contain all of the information contained in the Air Resources Board's Emission Inventory Turn Around Document as described in Instructions for the Emission Data System Review and Update Report. The statement shall contain emissions for the time period specified by the APCO. The statement shall also contain a certification by a responsible official of the company that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. The first statement will cover 1992 emissions and shall be submitted to the district by June 1993. Statements shall be submitted annually thereafter.

Rule 1000.1 Emission Statement Waiver

The APCO may waive this requirement to any class or category of stationary sources which emit less than 25 tons per year of oxides of nitrogen or reactive organic gas if the district provides the Air Resources Board with an emission inventory of sources emitting greater than 10 tons per year of nitrogen oxides or reactive organic gas based on the use of emission factors acceptable to the Air Resources Board.

Adoption Date: September 21, 1992



EL DORADO COUNTY
AIR QUALITY MANAGEMENT DISTRICT

Ozone Emergency Episode Plan

PREPARED IN COMPLIANCE WITH
THE FEDERAL CLEAN AIR ACT

Adopted January 12, 2016

Purpose

This Ozone Emergency Episode Plan (Plan) contains actions to prevent ambient ozone from reaching potential public health endangerment concentrations and reduce such concentrations. It identifies emergency episode levels, public announcement components, and emission control strategies. El Dorado County (EDC) is classified as non-attainment for the 2008 federal ozone 8-hour average standard[1]. Because EDC experienced more than one day with a maximum hourly ozone concentration greater than 0.10 ppm during the 2011/2012 period, the EDC Air Quality Management District (AQMD) is required to prepare this Plan.

Table 1 shows the number of days exceeding the 0.10 ppm threshold at EDC ozone monitoring sites from 2011 through 2014. During that period, the maximum ozone 1-hour concentration was 0.117 ppm. From 2013 to 2014, there were only two days in which the maximum hourly concentration exceeded 0.10 ppm. Both exceedances occurred at the Placerville site. As ozone concentrations continue to decline statewide, the likelihood of ever reaching the significant harm level (0.6 ppm) is very low.

Table 1
Number of Days with Maximum 1-hour Concentration Greater than 0.10 ppm*
at EDC Ozone Monitoring Sites

		2011**	2012**	2013**	2014***
Cool – Highway 193	# of Days	12	5	0	0
	Max Conc.	0.108	0.117	0.092	0.094
Echo Summit	# of Days	1	0	0	0
	Max Conc.	0.108	0.084	0.082	0.081
Placerville – Gold Nugget Way	# of Days	2	6	1	1
	Max Conc.	0.103	0.108	0.097	0.104

*Values were rounded to 2 decimal places before comparing with 0.10 ppm to determine the number of exceedance days
** Official data obtained from ARB's Aerometric Data Analysis & Management (iADAM)
http://www.arb.ca.gov/adam/select8/sc8start.php
***Preliminary unofficial data downloaded from ARB's Air Quality and Meteorological Information System (AQMIS2)
http://www.arb.ca.gov/aqmis2/aqdselect.php?tab=daily

Legal Authority

The Federal Clean Air Act (CAA)[2] gives the U.S. Environmental Protection Agency (U.S. EPA) authority to halt air pollutant emissions causing or contributing to public or welfare injury. The U.S. EPA is authorized to bring a lawsuit in federal court or issue such orders necessary to protect public health, welfare, or the environment. Pursuant to California Health & Safety Code (H&SC)[3], this authority is vested in the California Air Resources Board (ARB) and local air districts. This requirement applies to a range of emissions violations.

[1] Portions of Sacramento Valley and Mountain Counties Air Basins in EDC are classified as Ozone Nonattainment area.
[2] Federal Clean Air Act Section 110(a)(2)(G)
[3] California Health & Safety Code Section 42400 et seq.

The ARB is responsible for controlling mobile source emissions. Districts are responsible for controlling non-mobile source emissions. H&SC Section 41700 states sources are prohibited from emitting any pollutant(s) potentially causing public injury, detriment, nuisance or annoyance, or that endanger the public's comfort, repose, health or safety. H&SC Section 42450, et seq., gives districts authority to abate emissions from sources violating H&SC Section 41700 or any other order, rule, or regulation prohibiting or limiting pollutant discharge. Under H&SC Section 41509, the ARB or other local agency rules cannot infringe upon a district's authority to declare, prohibit, or abate a nuisance. The California's Attorney General is authorized to enjoin any pollution discharge or nuisance.

Pursuant to the California Emergency Services Act[4], air districts can work with a local governing body, to proclaim a local emergency when air pollution presents conditions of disaster or extreme peril to the safety of persons and property within the territorial limits of the governing body's jurisdiction[5]. When a local emergency is declared, local jurisdictions shall implement their emergency plans and take actions to mitigate or reduce the threat. Actions may include emergency response personnel deployment, emergency operation center activation and public protection order issuance. Through a local emergency declaration, air districts may obtain local agency aid to accomplish ambient ozone concentration reduction actions.

Requirement of a Plan for the Prevention of Air Pollution Emergency Episodes

Under the Code of Federal Regulations (CFR)[6], areas that do not attain federal ozone standards, and have 1-hour ozone concentrations above 0.10 parts per million (ppm), are required to develop a Plan. The Plan must include actions necessary to prevent all jurisdictional ambient two hour average ozone concentrations from reaching "significant harm level" of 0.6 ppm. The ozone pollution episode trigger levels are:

- Alert level 0.2 ppm
- Warning level 0.35ppm
- Emergency level 0.5 ppm[7]

Response actions to be taken when ozone concentrations reach the triggers levels are identified. Response actions provide rapid short-term emission reductions, to prevent reaching the 0.6 ppm significant harm level. The AQMD commits to implementing the proposed actions associated with each episode identified in this Plan. Plan implementation shall prevent the ambient ozone concentration from reaching the harmful level at 0.60 ppm.

[4] California Emergency Services Act, California Government Code Section 8550-8668
[5] California Government Code Section 8558 (c).
[6] 40 CFR 51.150 and 51.151
[7] 40 CFR 51 .150

Ozone Precursor Emissions

Ozone is created by the reaction of precursors Reactive Organic Gasses (ROG) and Nitrogen Oxides (NOx) in sunlight. Ozone emergency episode plans adopted by other jurisdictions require permitted facilities that emit large amounts of ozone precursors to prepare industrial abatement plans (IAP). IAPs contain actions necessary to rapidly reduce that facility's ozone precursor emissions when an episode level is triggered. The lowest threshold for requiring an IAP is 50 tons per year for both ROG and NOx[8]. Table 2 shows the three highest EDC facilities with emissions of ROG and NOx within EDC[9]. There are currently no facilities exceeding emission thresholds.

Table 2
Highest EDC Ozone Precursor (ROG and NOx) Emitting Facilities

ROG Emissions					
Facility	Facility ID	Air Basin	Area	Facility SIC	Tons/Year
Union Mine Landfill	28	Mountain Counties	El Dorado	4953	**4.21**
Tahoe Asphalt	3	Lake Tahoe	South Lake Tahoe	2951	**0.061**
DST Output	30	Mountain Counties	El Dorado Hills	2761	**0.035**
NOx Emissions					
Facility	Facility ID	Air Basin	Area	Facility SIC	Tons/Year
Union Mine Landfill	28	Mountain Counties	El Dorado	4953	**2.13**
DST Output	30	Mountain Counties	El Dorado Hills	2761	**0.814**
Tahoe Asphalt	3	Lake Tahoe	South Lake Tahoe	2951	**0.34**

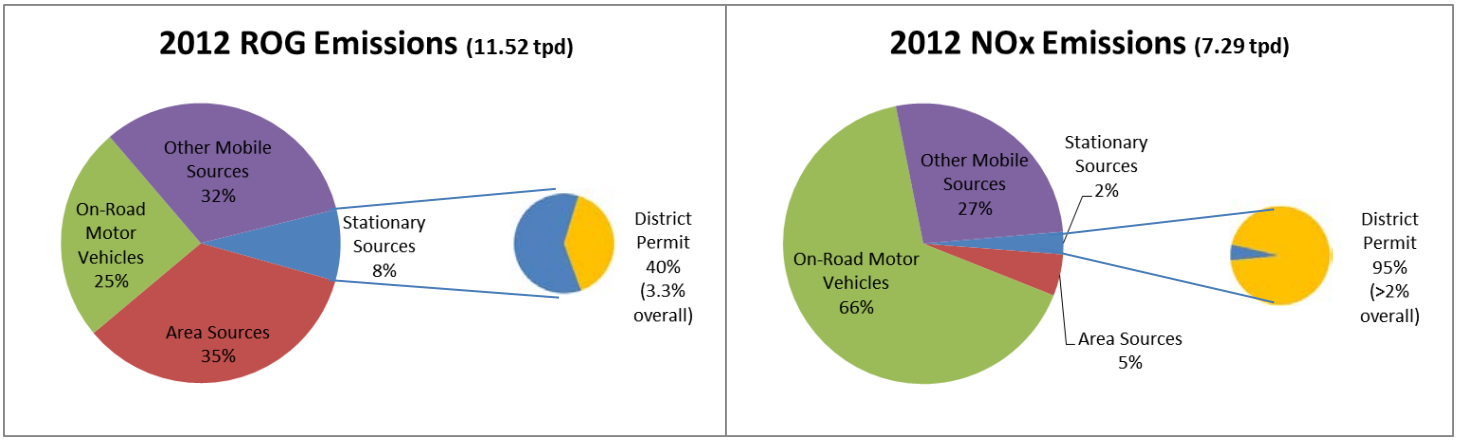
If AQMD does permit a facility with actual ozone precursor emissions of 50 tons or more per year, the following actions will be taken:

a) Initiate the development process for a rule that establishes IAP criteria (referred by 40 CFR 51 Appendix L) that will rapidly reduce facility ozone precursor emissions;
b) Adopt an IAP rule within 90 days; and
c) Request subject facilities submit IAP to AQMD for review and approval within 90 days of rule effective date.

Permitted facilities comprise a very small portion of the ROG and NOx countywide emission inventories. Figure 1 presents the 2012[10] reactive organic gases (ROG) and nitrogen oxides (NOx) emission inventories in EDC.

[8] SMAQMD Rule 701
[9] ARB online facility search engine http://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php
[10] ARB Emission Almanac (published in 2013)

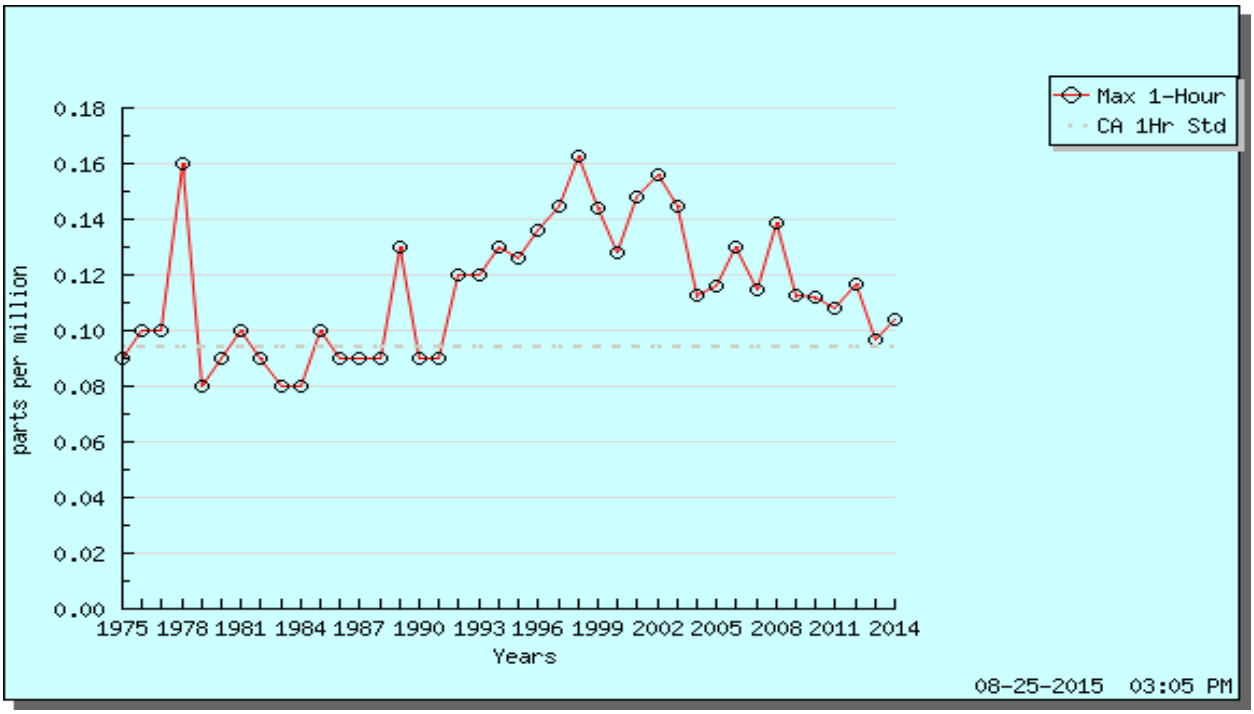
Figure 1
EDC 2012 Emission Inventory*



*This is the latest complete emissions inventory from ARB. District Permit emissions are from AQMD's permit database.

As depicted in Figure 1, EDC stationary sources produce only 8% of ROG emissions and 2% of NOx emissions. Of the total stationary source emissions, 40% of ROG emissions and 95% of NOx emissions are from permitted sources. Therefore, permitted sources produce only approximately 3% of ROG emissions and 2% of NOx emissions countywide. The major ozone precursor contributors are mobile sources and unpermitted area and stationary sources. Unusually high ozone precursor emissions from numerous additional sources outside EDC could raise concentrations to the Alert level and initiate ozone emergency episode plan implementation.

Figure 2
Annual Maximum 1-hour Ozone Concentration in EDC since 1975



*Data downloaded from ARB ADAM on 8/25/15

Figure 2 indicates the 0.2 ppm 1-hour ozone level has not been reached in EDC since monitoring began in 1975. The trend shows a generally consistent decrease since 1998. EDC ozone concentrations have substantially reduced by the implementation of regional control regulations and programs. Western EDC is in the Sacramento Federal Ozone Nonattainment Area (SFONA). The SFONA is designated as nonattainment for the federal 8-hour ozone standards. Two SFONA ozone State Implementation Plans (SIP) have been developed to identify ozone precursor emission control strategies for mobile and non-mobile sources. Based on SIP commitments, AQMD adopted or amended rules and developed programs to progress towards attaining the standards. The SFONA air districts continue to develop control strategies to achieve attainment. The current (2015) federal ozone eight-hour average standard is 0.070 ppm. Development and implementation of control regulations to achieve the standard will continually reduce one-hour maximum ozone concentrations ensuring trigger levels are not reached.

AQMD regulates open burning, including residential, land development, fire hazard reduction, vegetation management, prescribed fire, and agricultural[11]. For both the Mountain Counties and Lake Tahoe Air Basins, AQMD works cooperatively with the ARB and CalFire to disseminate daily burn day information. Proactive burn program implementation through no burn day patrol, 24 hour complaint response, and a first time violators training program minimize emissions during periods of atmospheric conditions conducive to high ozone levels.

AQMD contributes funding to the regional "Spare the Air" program, managed by the Sacramento Metropolitan Air Quality Management District. Spare the Air is an air quality forecasting and reporting program providing daily public notifications. Notifications are based on regional ozone and particulate matter concentrations. Advisories include an episodic ozone reduction element, during the summer ozone season. The program protects public health by informing the public of unhealthy air quality and encouraging them to minimize vehicle trips to reduce emissions. The notifications are based on ozone concentration measurements from all SFONA monitoring stations and meteorological forecasts the national weather service advisories and local agencies. When atmospheric stagnation conditions are forecasted, the public is notified through email, text, or the media, that a Spare the Air Day is issued. AQMD's participation in the Sacramento regional Spare the Air program will promote the acquisition of forecasts of the atmospheric stagnation conditions as frequently as they are issued, pursuant to the CFR requirements[12].

[11] AQMD Rule 300
[12] 40 CFR 51.152 "Contingency Plans"[13] EDC Ordinance Code Article 2.21.080 Emergency Organization and Functions

Ozone Episodes

The one hour ozone episode trigger levels are shown in Table 3.

Table 3
Ozone Episode Trigger Levels

	Alert, Stage 1	Warning, Stage 2	Emergency, Stage 3
Ozone (1-hour average)	0.20 ppm	0.35 ppm	0.50 ppm

Ozone Monitoring

AQMD staff do not operate ozone monitors. Staff monitor ozone levels with the Spare the Air program notifications and CARB's Air Quality and Meteorological Information System.

Episode Declaration

Whenever the ozone 1-hour concentration, measured at any of the EDC monitoring sites, reaches an episode trigger level, AQMD shall declare an episode stage to be in effect in EDC. If an episode stage is declared, AQMD shall notify the following:

1. EDC Board of Supervisors/OES Director
2. All Sacramento region and Mountain Counties Air Basin air districts,
3. California Air Resources Board,
4. EDC Chief Administrative Officer,
5. Chief executive officers of the EDC incorporated municipalities,
6. Sheriff, Police and Fire chiefs,
7. EDC Health Officer,
8. Local Hospitals
9. EDC Office of Emergency Services
10. EDC Office of Education and private school principals,
11. Major regional newspapers, television and radio stations,
12. Sacramento Regional Spare the Air Program,
13. AQMD permitted facilities, and
14. Any other entities as deemed appropriate by the APCO,

The AQMD shall periodically review and update this notification list (List). Emergency episode notifications shall include:

- Predicted and/or current episode level data and trigger levels,
- The duration anticipated,
- The affected area geographic boundaries anticipated,
- An air quality health significance statement, and
- The voluntary or mandatory control actions proposed for each episode level.

Episode Actions:
The actions identified for each trigger level include:

- Public notification,
- Activity cessation,
- Ozone precursor emission reductions, and
- IAP implementation.

These actions are to:

- Provide the public with recommendations to minimize their ozone exposure, and
- Rapidly reduce precursor emissions to lower ozone concentrations below trigger levels.

If ever an ozone episode is declared, AQMD shall implement the following:

1. Alert Episode, Stage 1:
   a) Prepare the emergency episode notification, including a request to the public to curtail any unnecessary motor vehicle operation;
   b) Notify the entities identified in the List of the alert episode declaration;
   c) Advise the EDC Office of Education Superintendent to contact and coordinate with public and private schools, to suspend students' strenuous activities;
   d) Notify the news media to broadcast the appropriate warning to the public, in cooperation with the EDC Office of Emergency Services (OES) and the County Health Officer;
   e) Request facilities with approved IAPs implement those plans and recommend employees refrain from operating vehicles until episode termination;
   f) Conduct on-site inspection of IAP facilities to ascertain compliance with applicable IAP emission control action requirements; and
   g) Prohibit all open burning including agricultural waste and incineration

2. Warning Episode, Stage 2: In addition to the Alert Episode actions, the following actions should be implemented in a Warning episode.
   a) Request Listed entities, within the scope of their authority:
      i. Prohibit all types of open burning;
      ii. Close non-essential facilities, except emergency facilities and those necessary to protect public safety, national security or national defense; and
      iii. Request that employees of closed non-essential public agency facilities refrain from using vehicles.
   b) Request closure of all EDC public and private schools, colleges, and universities;
   c) Conduct on-site inspection of major source (25 tpy ozone precursor) permitted facilities to ascertain the accomplishment of applicable emission control actions.
   d) Request subject facilities to close in accordance with approved IAPs;
   e) Request closed facility employers refrain from vehicle use until episode termination;

f) Request the suspension of all indoor and outdoor events at parks or recreational facilities open to the public;
g) Request the suspension of all athletic events, including boating and off-road recreational vehicle usage; and
h) Request that the EDC Board of Supervisors and Health Officer consider declaring a local emergency for air pollution[13], and implement emergency control measures, pursuant to the California Emergency Services Act.

3. Emergency Episode, Stage 3: In addition to the Alert and Warning Episode actions, the following will be implemented:
   a) Request that the OES Director/Board of Supervisors Chair declare a local emergency for air pollution and initiate the emergency operations plan;
   b) Request the media broadcast that a local emergency exists due to high ozone concentrations;
   c) Through the EDC OES, conduct the following actions:
      i. Close all government facilities which are not immediately necessary for public health and safety, national security or national defense;
      ii. Close all recreational and non-emergency commercial and industrial facilities;
      iii. Request implementation of carpooling and the use of mass transportation; and
      iv. Request that the public use only mass transit.
   d) Close principal streets, as deemed necessary by the OES Director, Health Officer, APCO, and local law enforcement agencies, to protect public health and welfare; and
   e) Request OES engage with the State agency for necessary actions pursuant to the California Emergency Services Act, which includes prohibiting the use of all motor vehicles except for emergencies, or any other action deemed warranted.

Episode Termination

The AQMD shall declare an episode terminated when the one-hour ozone concentration measurements from all EDC monitoring sites fall below the Alert level and meteorological data indicates concentrations will continue decreasing. Upon episode termination declaration, AQMD shall notify all entities listed above.

Interdistrict Coordination

Should the Air Pollution Control Officer (APCO) of a district within the Sacramento Valley nonattainment area, or adjacent to the El Dorado Air Quality Management District declare a stage 1, 2, or 3 episode within that district and request assistance, the APCO of AQMD shall take action to make a determination as to the significance of sources within the district and notify the adjacent district of any action being taken to reduce pollutants.

[13] EDC Ordinance Code Article 2.21.080 Emergency Organization and Functions