REGULATION II – OPEN BURNING

Rule 2.0 OPEN BURNING (Adopted 01/89, Amended 3/1/04, 10/6/08)

A. **PURPOSE**

A.1 The purpose of this rule is to ensure open burning in the District is conducted in a manner that minimizes emissions and smoke and is managed consistent with state and federal law.

B. **APPLICABILITY**

B.1 The provisions of this rule shall apply to any person or land manager conducting, allowing, or using any open burning for the purpose of disposal within Yuba and Sutter Counties.

B.2 The provisions of this rule shall apply to any open burning including but not limited to:

(a) agricultural burning
(b) non-agricultural burning such as land use conversion for non agricultural purposes, fire prevention/suppression training, and disposal of Russian Thistle (*Salsola kali* or "tumbleweed")
(c) disposal of infectious wastes, other than hospital wastes
(d) disposal of contraband
(e) residential burning

B.3 The provisions of this rule shall not apply to open burning for the purposes of cooking food for human consumption or recreational fires providing that there are no prohibited materials as defined in Section E.15.

C. **SEVERABILITY**

C.1 If any section, subsection, sentence, clause, phrase, or portion of this rule 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 thereof.

D. **EFFECTIVE DATE**

D.1 The provisions of this rule shall be effective on the date of adoption.

E. **DEFINITIONS**

E.1 **Agricultural Burning** means:

(a) open outdoor fires used in agricultural operations in the growing of crops or raising of fowl or animals, including burning empty paper containers of agricultural chemicals, or open outdoor fires used in forest management, range improvement, or the improvement of land for wildlife and game habitat, or disease or pest prevention.
(b) open outdoor fires used in the operation or maintenance of a system for the delivery of water for the purposes specified in subdivision (a).
(c) open outdoor fires used in wildland vegetation management burning. Wildland vegetation management burning is the use

of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass, or standing brush. Prescribed burning is the planned application of fire to vegetation to achieve any specific objective on lands selected in advance of that application. The planned application of fire may also include natural or accidental ignition.

E.2 **Approved Ignition Devices** means an instrument or materials that will ignite open fires without the production of black smoke as approved by the Air Pollution Control Officer (APCO). This would include such items as liquid petroleum gas, butane, or diesel oil burners, flares, or other similar materials. This does not include waste products or fuels, tires, tar, tar paper, oil and other similar materials.

E.3 **Burn Barrel** means a container used to hold combustible or flammable waste materials so that they can be ignited outdoors for the purpose of disposal.

E.4 **District** means the Feather River Air Quality Management District having jurisdiction over Yuba and Sutter Counties.

E.5 **Fire Protection Agency** means any agency with the responsibility and authority to protect people, property, and the environment from fire, and having jurisdiction within a district or region.

E.6 **Incinerator** means any device constructed of nonflammable materials, including containers commonly known as burn barrels, for the purpose of burning therein trash, debris, and other flammable materials for volume reduction or destruction.

E.7 **Land Manager** means any federal, state, local, or private entity or person that administers, directs, oversees, or controls the use of public or private land, including the application of fire to the land.

E.8 **No-Burn Day** means any day, or portion thereof, designated by the Air Pollution Control Officer, the California Air Resources Board, or, a local, state or federal fire protection agency having jurisdiction over the burn location, as a day, or portion thereof, during which no fires may be ignited or no material may be added to an approved existing fire except as authorized in Section J.6.

E.9 **Non-Agricultural Burning**, as regulated under the California Health and Safety Code, means all open burning set pursuant to sections K and L of this rule including, but not limited to, fires set by a public officer or public entity, for commercial or residential property development, fires set at a solid waste disposal site, and for the disposal of Russian Thistle.

E.10 **Open Burning** means combustion of any material of any type, outdoors in the open air, where the product of combustion is not directed through a flue.

E.11 **Orchard or Citrus Grove Heaters** means any approved article, machine, or equipment, burning any approved type of fuel or material capable of emitting air contaminants, used for the purpose of giving

protection to crops from frost damage under the provisions of section G.10.

E.12 **Paper Containers of Agricultural Chemicals** means sacks or other receptacles that are predominately of paper and manufactured to contain pesticides, fertilizer, or toxic chemicals, and emptied and used in the field for purposes intimately associated with the growing and harvesting of crops.

E.13 **Permissive Burn Day or Burn Day** means any day, or portion thereof, on which allowable burning is not prohibited by the District, the California Air Resources Board or any local, state or federal fire protection agency having jurisdiction over the proposed burn location and is authorized by the District in accordance with the Smoke Management Program for Agricultural and Prescribed Burning, as set forth in Title 17 of the California Code of Regulations.

E.14 **Person** means any person, firm, association, organization, partnership, business trust, corporation, Limited Liability Company, company, state or local government agency, public district, or any officer or employee thereof, and the United States or its agencies, to the extent authorized by federal law.

E.15 **Prohibited Materials** means any waste or manufactured material, including but not limited to petroleum products and petroleum wastes; construction and demolition wastes; lumber; tar paper; roofing material; wiring; flooring material; insulation; plywood; coated wire; putrescible wastes; tires; tar; wood waste; processed or treated wood products; metals; motor vehicle bodies or parts; rubber; synthetics; plastics, including plastic film, twine and pipe; fiberglass; Styrofoam; garbage; trash; refuse; rubbish; disposable diapers; ashes; glass; industrial wastes; equipment; appliances; furniture; instruments; utensils; mattresses; shoes; cloth; rags; paper and paper products; cardboard; boxes; crates; excelsior; offal; swill; carcass of any dead animal; manure; human or animal parts or wastes, including blood and fecal matter or food contaminated material; or any other non-vegetative material that when burned may discharge air contaminants that may cause a health risk to any person.

E.16 **Pruning Only Burn Day** in accordance with the Sacramento Valley Smoke Management Program means any day, or portion thereof, designated by the California Air Resources Board or the District as a day, or portion thereof, during which small fires for the purpose of disposing orchard prunings may be ignited.

E.17 **Range Improvement Burning** means the use of open fires to remove vegetation for wildlife, game, or livestock habitat, or for the initial establishment of an agricultural practice on previously uncultivated land.

E.18 **Residential** means of or pertaining to dwellings occupied by one or two families.

E.19 **Restricted field days** in accordance with the Sacramento Valley Smoke Management Program means any day, or portion thereof, designated by the California Air Resources Board or the District, as a day, or portion thereof, during which small amounts of ditches, field

stubble or spot burning will be permitted if such burning will not adversely affect downwind air quality.

E.20 **Smoke Management Burn Plan** means an operational plan for managing a specific fire to achieve resource benefits and specific management objectives. The document shall be prepared for each fire by land managers to provide information and procedures required by the District, in accordance with the Sacramento Valley Smoke Management Program, to minimize smoke impacts of the proposed burn project.

E.21 **Wildland** means any area where development is generally limited to roads, power lines, and widely scattered structures. Such land is not cultivated (i.e., the soil is disturbed less frequently than once in 10 years), is not fallow, and is not in the United States Department of Agriculture (USDA) Conservation Reserve Program. The land may be neglected altogether or managed for such purposes as wood or forage production, wildlife, recreation, wetlands, or protective plant cover.

(a) For CDF territory only, Wildland as specified in California Public Resources Code (PRC) section 4464(a) means any land that is classified as a state responsibility area pursuant to Article 3 (commencing with Section 4125) of Chapter 1, Part 2 of Division 4 and includes any such land having a plant cover consisting principally of grasses, forbs, or shrubs that are valuable for forage.

(b) Wildland also means any lands that are contiguous to lands classified as a state responsibility area if wildland fuel accumulation is such that a wildland fire occurring on these lands would pose a threat to the adjacent state responsibility area.

E.22 **Wildland Vegetation Management Burning** is the use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass, or standing brush.

F. GENERAL PROHIBITIONS

F.1 Except as provided in these Rules and Regulations, no person or land manager shall conduct, allow, or use open fires for the purpose of disposal of any waste or other material.

F.2 In accordance with Health & Safety Code section 41700, no person shall discharge from any source air contaminants which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a tendency to cause injury or damage to business or property.

(a) This section shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

F.3 Any open burning that is in violation of these Rules and Regulations is subject to being put out by any fire control agency when so ordered by the APCO. The cost of putting out the fire may be charged

to the person, persons, business, firm, or corporation responsible for the fire.

(a) This provision is in addition to any other penalties that are authorized by Section 42400 through 42404 of the California Health and Safety Code and provisions of these Rules and Regulations.

G. **EXEMPTIONS:**

Nothing in these rules shall be construed to prohibit:

G.1 **Agricultural Burning**: Burning for the disposal of agricultural waste authorized pursuant to Section J "Agricultural Burning".

G.2 **Public Officer**: Burning operations conducted by or permitted by any public officer authorized pursuant to section K.1 "Public Officer".

G.3 **Industrial Training**: Burning operations on property used for industrial purposes for the purposes of instruction of employees in methods of fire fighting pursuant to Section K.2 "Industrial Site Fire Training".

G.4 **Right-of-Way Clearing**: Burning by a public entity or utility for right-of-way clearing or other property access, or for levee, reservoir, ditch, or drainage maintenance authorized pursuant to Section K.5 "Right of Way, Levee, Reservoir, and Ditch Clearing".

G.5 **Residential Burning**: Burning for the disposal of vegetative material waste authorized pursuant to Section L "Residential Burning".

G.6 **Backfires:** Burning operations conducted following Section 4426 of the Public Resources Code as backfires necessary to save life or valuable property.

G.7 **Recreational:** Open outdoor fires used for cooking food for human consumption or for recreational purposes providing the fire does not contain prohibited materials as defined in section E.15 "Prohibited Materials".

G.8 **Pesticide Application:** Open burning for the purposes of creating a smoke column during pesticide applications as required by section 6464 (a) of the California Code of Regulations.

(a) Section 41701 of the Health & Safety Code shall not apply to smoke generated for this purpose.

G.9 **Animal Husbandry:** Fires used in heating branding irons as necessary in animal husbandry practices providing the fire does not contain prohibited materials as defined in section E.15 "Prohibited Materials".

G.10 **Frost Protection for Orchards and Citrus Groves**: Heaters are authorized under California Health & Safety Code Section 41860 when used for preventing frost damage in orchards and citrus groves. The following applies to heaters in orchards and citrus groves to prevent frost damage.

(a) No new orchard or citrus grove heater shall be sold for use against frost damage unless the California Air Resources Board has approved it and finds it produces no

more than 1 gram per minute of unconsumed solid carbonaceous material.

(b) No person shall use any orchard or citrus grove heater unless the California Air Resources Board has approved it.

(c) Open fires in orchards or citrus groves for the purposes of frost protection are prohibited.

(d) The use of rubber tires or any rubber products in any combustion process in connection with any orchard or citrus grove heating is prohibited.

H. OPEN BURNING PERMITS

H.1 **Permit Required:** No person shall ignite any open fire, conduct, perform or participate in any open burning activity, or allow the open burning activity on any property under the person's possession without first obtaining a valid burn permit issued by the APCO and follows the conditions specified on the permit and these rules and regulations.

(a) Each applicant for a burn permit shall provide such information as is required by the District or the designated fire protection agency for fire protection purposes.

(b) Fees for permitting shall be recovered in accordance with District Regulation VII.

H.2 **Exemptions to Permit Requirements.** The following are exempt from a District permit until proper public notice to remove the exemption is filed. Other permitting requirements from the fire protection services may be required.

(a) Open outdoor fires used for cooking food for human consumption or for recreational purposes.

(b) Open burning of vegetation at one- or two-family residences on parcels less than two acres in size, provided that the requirements of section L "Residential Burning" and the requirements of fire protection services are both met.

I. GENERAL BURN REQUIREMENTS, CONDITIONS AND PRACTICES

I.1 **Compliance:** No person shall ignite any open fire, conduct, perform or participate in any open burning activity, or, allow the open burning activity on any property under the person or land manager's responsibility, in violation of any State law, Statute, District Rule or Regulation, or burn permit issued by the APCO pursuant to these Rules and Regulations. Any open burning which is not in full and complete compliance with the provisions of these Rules and Regulations is in violation of these Rules and Regulations.

I.2 **Fire Control:** All fires shall be reasonably controlled and contained so that the fire does not escape.

I.3 **Suspension of Burning Privilege:** The APCO may suspend all burn privileges for any person or location for any violation of this rule.

I.4 **Fire Protection Agencies**: Local fire-protection agencies may have additional burning requirements for fire safety. Nothing in these regulations shall be construed as limiting the power of the fire protection agencies from requiring or enforcing stricter standards.

I.5 **Ignition Devices:** All open fires shall be ignited with an approved ignition device.

I.6 **Smoke Minimization:** All vegetative wastes to be burned shall be reasonably free of dirt, soil, visible surface moisture, and moisture content to minimize smoke.

(a) To lower the moisture content of vegetative waste, the elapsed time between cutting, felling or uprooting and ignition or burning shall be:

(1) Forty-five (45) days for trees and large branches 6" in diameter or greater.

(2) Thirty (30) days for prunings and small branches 3" to less than 6" diameter.

(3) Fifteen (15) days for fine prunings 0" to less than 3" diameter.

(b) All burnable waste shall be arranged so that it will ignite as rapidly as practicable within applicable fire control restrictions and burn with a minimum amount of smoke.

(c) Tree stumps shall not be burned in place.

I.7 **Prohibited Materials**: All open fires shall be free of prohibited materials as specified in section E.15 "Prohibited Materials".

I.8 **Designated Burn Hours**: Only that amount of waste that can reasonably be expected to completely burn within the burn hours shall be ignited on any one (1) day.

(a) Dry trees, uprooted stumps and branches greater than six (6) inches in diameter may be ignited even though they cannot reasonably be expected to completely burn within the burn hours after approval from the APCO.

I.9 **Wind Direction:** Burning shall not be ignited when the wind direction is such that smoke from the burning of such waste would be blown or carried into a nearby-populated area and could create a public nuisance.

I.10 **Burning of Vines or Bushes Treated with Herbicides:** Vines or bushes may be burned in place without being cut or uprooted if they are treated and desiccated with herbicides and allowed to dry completely prior to ignition or burning.

I.11 **Transportation of Burnable Materials:** All vegetative material to be burned pursuant to this rule shall be burned on the property where the material was grown. No material may be transported to another location to be burned.

J. AGRICULTURAL BURNING

J.1 **Burn Hours:** A person shall not commence any open burning before or after the burn hours.

(a) The ARB is authorized to restrict or relax the burn hours due to air quality factors. Any restricted hours are enforceable for the day they are in effect.

(b) For orchard prunings, burn hours are between 9:00 a.m. and 4:00 p.m.

(c) Between March 1 and August 31, for all field crops, including rice, ditchbanks, weeds, and levees, burn hours

are between 10:00 a.m. and 4:00 p.m. All fires shall be completely out by 5:00 p.m.

(d) Between September 1 and February 28/29, for all field crops, including rice, ditchbanks, weeds, and levees burn hours are between 10:00 a.m. and 3:00 p.m. All fires shall be completely out by 4:00 p.m.

J.2 **Burn Acres:** no fire shall be lit that may cause an exceedance of the Districts Daily Burn allocation as specified in the Sacramento Valley Air Basin Smoke Management Program.

J.3 **Prohibited Materials**: Agricultural open fires shall be free of prohibited materials as specified in Section E.15, "Prohibited Materials".

J.4 **Paper Containers of Agricultural Chemicals**: The open burning of paper containers of agricultural chemicals must be conducted in accordance with California Environmental Protection Agency's Department of Pesticide Regulations Guidelines for Emptying and Burning of Pesticide Bags, Chapter 13 General Policy Guidelines, Bag Disposal. Burning shall be conducted at the site of application under the conditions of an agricultural burn permit issued to the grower or applicator, in accordance with proper disposal guidelines specified on the packaging and downwind from any person or susceptible crops. In addition, only one day's accumulation of empty bags can be burned in any one day. Only paper bags, inner bags, and paper outer containers may be burned. The ash does not need to be tested. A commercial applicator, either ground or aerial, can burn properly emptied pesticide sacks where the bags are opened and emptied at the application site and under the agricultural burn permit issued to the grower or applicator. The person burning the bags and anyone working in close proximity must wear eye protection and respiratory protective equipment rated for protection against the particular type of pesticide material being burned, as well as airborne particulates.

J.5 **Field Crop Burn Limitation:** No crop acreage which was harvested prior to September 10 shall be burned during the period October 1 through November 15 of each year unless written authority is given by the District.

J.6 **Permit Invalidation on No-Burn Days:** A burning permit shall not be valid on a No-Burn Day and a person shall not set or permit burning on a No-Burn Day.

(a) If a permissible burn day is subsequently changed to a No-Burn day, any previously approved fire ignited during the permissible portion of the day may continue to burn providing that no additional material is added.

(b) Notwithstanding any other provision of this Regulation, the APCO may authorize burning on days designated by the State Air Resources Board as No-Burn Days when denial of such authorization would threaten imminent and substantial economic loss or would cause a public health hazard.

(1) The APCO may only authorize such burning when downwind metropolitan areas are forecast by the District to achieve the ambient air quality standards and/or a fire agency has not declared a no-burn day due to safety issues.

(2) The District shall limit the amount of acreage that can be burned on any one no-burn day in any one county to 200 acres.
(3) Within fifteen (15) days of the granting of an exemption, the applicant shall return a signed statement that provides the reasons why denial would have caused imminent and substantial economic loss or a public health hazard.
(4) Any APCO authorization does not exempt the responsible party from any other District or fire control regulation.

J.7 **Rice Straw Burning:** In addition to the general agricultural burning requirements of this rule, rice straw burning shall be performed in compliance with the Smoke Management Program and all of the following:

(a) All rice harvesters shall employ a mechanical straw spreader to insure even distribution of the straw. Rice straw may be left in rows providing it meets the following drying time criteria. Drying times are timed after harvest.
(1) Rice straw may be burned prior to the drying period specified if the straw passes the crackle test described in J.7 (b) "Crackle Test", prior to burning.
(2) For spread rice straw - three (3) day drying time.
(3) For rowed rice straw - ten (10) day drying time.
(4) For rice straw harvested with the “stripper header” - three (3) days after the first frost found on the field; or three (3) days after mowing and spreading or chopping straw.
(5) After a rain exceeding .15 inch (fifteen hundredths of an inch), rice straw shall not be burned unless the straw passes the crackle test.

(b) When testing the straw for moisture, the person responsible for the fire or his agent shall test a composite sample in accordance with the Sacramento Valley Air Basin Smoke Management Program.

(c) Rice stubble is to be ignited only by strip firing into the wind or by backfiring except where and when extreme fire hazards are declared to exist by the appropriate fire control agency.
(1) The APCO may authorize other lighting techniques if safety reasons exist or if the crop does not lend itself to the approved techniques.

J.8 **Wildland Vegetation and Forest Management Burning**

(a) Wildland vegetation and forest management burning shall conform to the Sacramento Valley Air Basin Smoke Management Program, the rules and regulations of the District and the following requirements:
(1) Any proposed burn, regardless of size, which will occur below a mean elevation of 1000 feet above sea level shall complete and submit a Smoke Management Plan on forms provided by the District at least seven (7) days prior to ignition.
(2) Any proposed burn which encompasses a land area greater than ten (10.0) acres and which occurs at or above a mean elevation of 1000 feet shall complete and submit a

Smoke Management Plan on forms provided by the District at least seven (7) days prior to ignition.

(b) No burning shall be ignited without District approval.

(1) The initial “go/no-go” decision to manage a naturally ignited fire for resource benefit shall be made in accordance with the Sacramento Valley Air Basin Smoke Management Program.

J.9 **Air Resources Board Advance Permissive-Burn Forecast:** Upon request from a permittee through the District, seven (7) days in advance of a specific range improvement burn, forest management burn, or wild land vegetation management burn, a permissive-burn or no-burn forecast will be issued by the state board up to 48 hours prior to the date of the scheduled burn. Without further request, a daily forecast will continue to be issued until a permissive-burn forecast is issued.

(a) A permissive-burn or no-burn advisory outlook will be available up to 72 hours in advance of burns.

K. NON-AGRICULTURAL BURNING

K.1 **Public Officer:** Fires set or permitted by any public officer if such fire is set or permission given in the performance of the official duty of such officer, and such fire in the opinion of the officer is necessary for the purposes specified in the California Health and Safety Code:

(a) For the purpose of the prevention of a fire hazard which cannot be abated by any other means.

(b) For the instruction of public employees in the methods of fire fighting.

(1) Burning of any structure shall be conducted in accordance with NESHAP requirements and ARB guidelines. The structure to be burned shall be certified free of asbestos.

(2) A District permit is required for any field training burn greater than twenty (20) acres.

(3) The public officer shall notify the District 48 hours before any burn conducted for the purposes of training.

(c) For the purpose of disease or pest control and prevention where there is an immediate need for and no reasonable alternative to burning, as determined by the APCO.

(1) Burning operations for disease or pest control shall notify the District in writing.

K.2 **Industrial Site Fire Training**: Permits are required for industrial site employee instruction in fire fighting methods.

(a) Materials to be burned shall be certified free of asbestos. Laboratory results of the asbestos testing shall be submitted to the APCO at least ten (10) days before burning.

K.3 **Land Clearing**: Open burning of natural vegetation on land being developed for industrial or commercial purposes shall be prohibited.

(a) Burning is allowed and permits are required for land clearing on property being developed for a single family residence.

(1) All the requirements in Section I "General Burn Requirements, Conditions, and Practices" and the State

Board approved criteria for open burning under the Smoke Management Program shall apply to this provision.

K.4 **Solid Waste Disposal:** Open burning at a solid waste disposal site shall be prohibited.

K.5 **Right of Way, Levee, Reservoir, and Ditch Clearing:** Right of way, Levee, Reservoir, and Ditch Clearing conducted by a public entity or utility shall require a District permit in accordance with this regulation.

(a) The material shall be prepared by stacking, drying, or other methods to promote combustion.

K.6 **Russian Thistle:** permits are required for the disposal of Russian Thistle pursuant to the California Health and Safety Code.

K.7 **Multi-Unit Dwellings and Commercial Entities**: At multi-unit dwellings and commercial entities, burning for the purpose of fire hazard reduction when done for the purpose of compliance with local fire hazard reduction ordinances.

(a) Fire hazard reduction shall require a District permit in accordance with this regulation and approved criteria for open burning.

(1) All the requirements in Section I "General Burn Requirements, Conditions, and Practices" shall apply to this provision.

L. RESIDENTIAL BURNING

L.1 **General Conditions:** All residential burning shall be subject to the requirements in section H "Open Burning Permits", section I "General Burn Requirements, Conditions, and Practices" and the following additional requirements.

L.2 **Additional Requirements**:

(a) No person or land manager shall dispose of any material from any property by burning outdoors in a burn barrel or incinerator.

(b) Paper, cardboard, and all prohibited materials shall be prohibited from burning.

(c) All vegetation to be burned shall be generated from the property at which burning will occur. It is prohibited to burn imported vegetative materials.

(d) To minimize smoke impacts to nearby occupied dwellings; open fires shall not take place less than twenty-five (25) feet from any occupied dwelling.

(e) To minimize accidental ignition of prohibited materials; the open burn area shall have a minimum ten (10) foot clearance.

(f) A responsible adult shall attend the burn at all times.

(g) Any disposal of an unserviceable American Flag that is no longer fit for display must be conducted in a respectful and dignified manner in accordance with the CA Health & Safety Code section 41806(c).

L.3 **Burn Days:** Residential burn days are Monday, Wednesday, and Saturday providing it is a permissible burn day as determined by the APCO in accordance with the Sacramento Valley Air Basin Smoke Management Program. All residential burners must call the burn information

recorder after 9:00 a.m. before igniting any open fire to determine if it is a burn day.

L.4 **Burn Hours:** Residential burn hours are between 9:00 a.m. and 4:00 p.m. No material can be added to the fire after 3:00 p.m. and the fire must be extinguished by 4:00 p.m.

(a) Alternate burn hours may be set for State Responsibility Areas under the jurisdiction of the California Department of Forestry and the U.S. Forest Service.

(1) Residential Burners in these areas shall burn under a permit issued by the designated agency.

(2) Residential burners shall call the local fire-protection agency for seasonal and specific hour requirements.

L.5 **Permitting:** The APCO is authorized to require air quality burn permits for residential burns.

(a) Fees for permitting shall be recovered in accordance with District Regulation VII.

(b) Permitting requirements shall follow the conditions specified by the APCO.

(c) The APCO may determine that residential air quality burn permits are not required. This does not relieve the resident of the responsibility of obtaining any permit required and issued by a fire protection agency for fire safety.

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

RULE 3.0 VISIBLE EMISSIONS (Adopted 6/91)

As provided by Section 41701 of the California Health and Safety Code, a person shall not discharge into the atmosphere from any single source of emissions whatsoever, any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:

a. As dark or darker in shade as that designated as No. 2 on the Ringlemen Chart, as published by the United States Bureau of Mines; or
b. Of such opacity as to obscure an observers view to a degree equal to or greater than does smoke described in Subsection 'a' above.

RULE 3.2 PARTICULATE MATTER CONCENTRATION (Adopted 6/91)

A person shall not discharge into the atmosphere from any source, except as allowed by Rule 3.1, section 'a' and 'c' of these Rules and Regulations, particulate matter in excess of 0.3 grains per cubic foot of gas at standard conditions.

When the source involves a combustion process, the concentration must be calculated to 12 per cent carbon dioxide (CO_2). In measuring the combustion contaminants from incinerators used to dispose of combustible refuse by burning the carbon dioxide (CO_2) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation to 12 percent of Carbon Dioxide (CO_2).

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

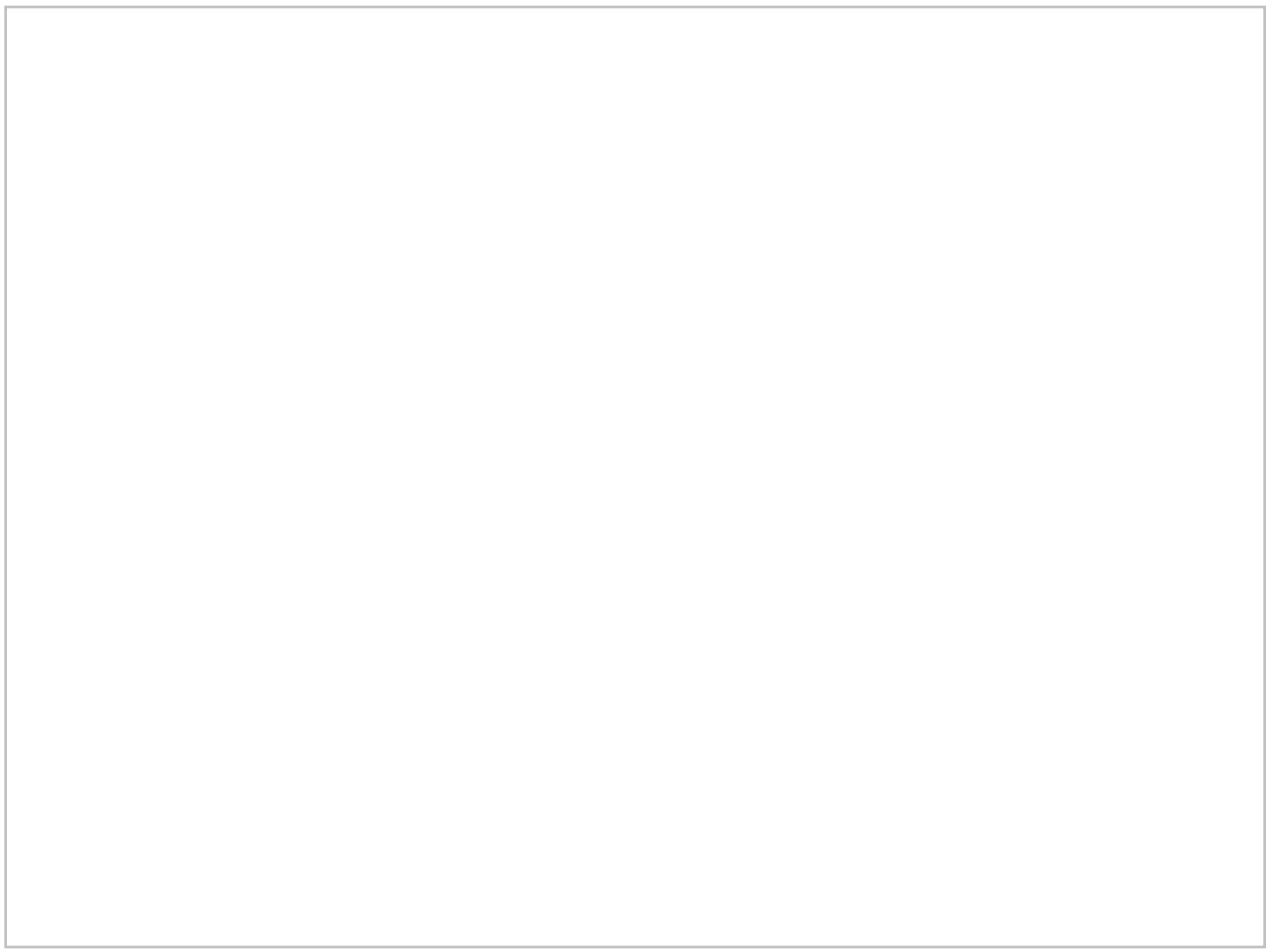
RULE 3.3 DUST AND FUMES (Adopted 6/91)

A person shall not discharge in any one hour from any source whatsoever, except as provided by Rule 3.1, section 'a' and 'c' of these Rules and Regulations, dust or fumes in total quantities in excess of the amounts shown in the following table:

To use the following table, take the process weight per hour as such is defined in the attached definitions. Then find this figure on the table opposite which is the maximum number of pounds of contaminants which may be discharged into the atmosphere in any one hour. As an example; if "A" has a process which emits contaminants into the atmosphere and which process takes four (4) hours to complete, he will divide the weight of all materials in the specific process, in this example, 2,400 lbs., by '4', giving a process weight per hour of 600 lbs. The table shows that "A" may not discharge more than 1.83 lbs., in any one hour during the process. Interpolation of the data in the table for process weights up to 60,000 pounds/hour shall be accomplished by use of the equation:

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 pounds/hour shall be accomplished by use of the equation:

E = Rate of emission in pounds/hour;
P = Process weight rate in ton/hour.



RULE 3.4 SEPARATION OF EMISSIONS (Adopted 6/91)

If air contaminants from a single source operation are emitted through two or more emission points, the total emitted quantity of any air contaminant limited in this Regulation cannot exceed the quantity which would be the allowable emission through a single emission point; the total emitted quantity of any such air contaminant shall be taken as the product of the highest concentration measured in any of the emission points and the combined exhaust gas volume from all emission points, unless the person responsible for the source operation establishes, to the satisfaction of the Air Pollution Control Officer, the correct emitted quantity.

RULE 3.5 COMBINATION OF EMISSIONS (Adopted 6/91)

a. If air contaminants from two or more source operations are combined prior to emission and there are adequate and reliable means reasonably susceptible to confirmation and use by the Air Pollution Control Officer for establishing a separation of the components of the combined emission to indicate the nature, extent, quantity and degree of emission arising from each source operation, then all of the applicable prohibitions shall apply to each source operation separately.
b. If the air contaminants from two or more source operations are combined prior to emission, and the combined emissions cannot be separated according to the requirements of section 'a', of this Rule, then all applicable prohibitions shall be applied to the combined emission as if it originated in a single source operation, subject to the most stringent limitations and requirements placed by these prohibitions on any of the source operations whose air contaminants are so combined.

RULE 3.7 REDUCTION OF ANIMAL MATTER (Adopted 6/91)

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

a. Incinerated at temperatures of not less than 1,200 degrees Fahrenheit, for a period of not less than 0.3 seconds; or,
b. Processed in such a manner determined by the Air Pollution Control Officer to be equally or more effective for the purpose of air pollution control than subsection 'a' of this Rule.

A person incinerating or processing gases, vapors or gas-entrained effluents pursuant to this Rule shall provide, properly install and maintain in calibration, in good working order and in operation devices, as specified in the Permit to Construct or to Operate or as specified by the Air Pollution Control Officer, for indicating temperature, pressure or other operating conditions.

For the purpose of this Prohibition "reduction" is defined as any heated process, including rendering, cooking, drying, dehydrating, digesting, evaporating, and protein concentrating.

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

RULE 3.8 STORAGE AND TRANSFER OF GASOLINE (Adopted 6/91)

a. Any person who installs any gasoline storage tank with a capacity of 250 gallons or more which is not equipped with a permanent submerged fill pipe or other equipment referred to in this Rule is guilty of a misdemeanor. This provision does not apply to any storage tank which is used primarily for the fueling of implements of husbandry, as such vehicles are defined in Division 16 (commencing with Section 3600) of the Vehicle Code.

TRANSFER OF GASOLINE INTO STATIONARY STORAGE CONTAINERS

b.

1. A person shall not transfer or permit the transfer of gasoline from any delivery vessel (i.e., tank truck or trailer) into any stationary storage container with a capacity of more than 250 gallons unless 90% by weight of the vapors displaced from such transfer are prevented from being released to the atmosphere.

   The provisions of this section shall be subject to the following exceptions:
   a. The transfer of gasoline into any stationary storage container used primarily for the fueling of implements of husbandry as such vehicles are defined in Division 16 (Section 3600 et seq.) of the California Vehicle Code.
   b. The transfer of gasoline into any stationary storage container in existence prior to date of adoption of this rule when such container is served by a delivery vessel exempted by the Air Pollution Control Officer pursuant to Section 3a of this Rule.
   c. The transfer of gasoline into any stationary storage container in existence prior to adoption of this regulation which is equipped with a offset fill pipe.
   d. The transfer of gasoline into any stationary storage container installed prior to the effective date of this regulation for which the total monthly throughput of the facility does not exceed 25,000 gallons.
2. No person shall store gasoline in or otherwise use or operate any gasoline vessel unless such vessel is designed to be vapor tight. Any delivery vessel into which gasoline vapors are required to be transferred shall be filled only at a loading facility that is equipped with a system that prevents at least 90% by weight of the gasoline vapors displaced from entering the atmosphere.
3.
   a. The owner or operator of any bulk loading facility which was in operation prior to the date of adoption of this Rule and for which the annual throughput to stationary storage containers that are not exempted from Section 1a does not exceed 500,000 gallons, may petition the Air Pollution Control Officer to have the facility's delivery vessels and other independently owned gasoline delivery vessels which are exclusively serviced at such facility exempted from the provisions of Section 2. The owner and operator of such a facility must petition annually to renew such exemptions.
   b. A person shall not load gasoline into any delivery vessel from any loading facility granted an exemption pursuant to Section 3a of this Rule unless such delivery vessel is loaded through a submerged fill pipe.
4.
   a. For the purposes of the Rule, the term "gasoline" is defined as any petroleum distillate having a Reid Vapor pressure of 4 pounds or greater.
   b. For the purposes of this Rule "gasoline vapors" means the organic compounds in the displaced vapors including any entrained liquid gasoline.
   c. For the purposes of this Rule, the term "submerged fill pipe" is defined as any fill pipe, the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the container. "Submerged fill pipe" when applied to a container which is loaded from the side is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18

inches above the bottom of the container.

TRANSFER OF GASOLINE INTO TANK TRUCKS, TRAILER, AND RAILROAD TANK CARS AT LOADING FACILITIES

c.

1. A person shall not load gasoline into any tank truck, trailer, or railroad tank car from any loading facility having an annual throughput of 5,000,000 gallons or more unless the loading facility is equipped with a vapor collection and disposal system or its equivalent approved by the Air Pollution Control Officer. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor collection system. Measures shall be taken to prevent liquid from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
2. The vapor disposal portion of the vapor collection and disposal system shall process all vapors and reduce the emission of gasoline vapors by at least 90% by weight of uncontrolled emissions.

STORAGE OF GASOLINE PRODUCTS AT TERMINALS AND LARGE BULK LOADING FACILITIES

d.

1. A person shall not place, store or hold in any stationary tank, reservoir or other container of more than 40,000 gallons capacity gasoline unless such tank, reservoir or other container is a pressure tank maintaining working pressures sufficient at all time to prevent gasoline vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, in good working order and in operation.
    a. A floating roof of an approved type. The Control equipment provided for in this paragraph shall not be used if the gasoline has a vapor press of 11.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging and sampling devices shall be gas tight except when gauging of sampling is taking place.
    b. A vapor recovery system, of efficiency equivalent to a floating roof meeting the requirements of a) above, consisting of a vapor gathering system capable of collecting the gasoline vapors and gases discharged, and a vapor disposal system capable of processing such gasoline vapors and gases so as to prevent their emissions to the atmosphere and with all tank gauging and sampling devices gas tight except when gauging or sampling is taking place.
    c. Other equipment of equal efficiency, provided such equipment is submitted to and approved by the Air Pollution Control Officer.

RULE 3.8 **GASOLINE DISPENSING FACILITIES** **(Adopted 6/91, Amended 6/2/2014)**

A. GENERAL

A.1 **PURPOSE:** The purpose of this rule is to limit displaced gasoline vapors from storage tanks and transport vessels.

A.2 **APPLICABILITY:** This rule applies to the transfer of gasoline into any stationary storage tank located at a gasoline dispensing facility.

A.3 **SEVERABILITY:** If a court of competent jurisdiction issues an order that any provision of this rule is invalid, it is the intent of the District that other provisions of this rule remain in full force and effect, to the extent allowed by law.

B. EXEMPTIONS

B.1 **EXEMPTION:** The provisions of this rule shall not apply to the following:

a. Storage tanks with a capacity of 250 gallons or less;
b. The transfer of gasoline into any stationary storage tank used exclusively for the fueling of implements of husbandry, as such vehicles are defined in Division 16 (Section 36000 et seq.) of the California Vehicle Code, if such storage tank is equipped with a permanent submerged fill pipe; or
c. Storage tanks located at gasoline bulk plants or gasoline terminals.

B.2 **EXEMPTION – PHASE I:** The provisions of Sections D.2 and D.8 shall not apply to any stationary storage tank which meets all of the following requirements:

a. The storage tank was installed at the stationary source prior to June 1991; and
b. The storage tank maintains a monthly throughput of less than 10,000 gallons.

B.3 **EXEMPTION – PHASE I EVR:** The provisions of Section D.2 shall not apply to any stationary storage tank used at a non-retail gasoline dispensing facility that is equipped

with a Phase I vapor recovery system that meets all of the following requirements:

a. The vapor recovery system achieves a minimum vapor recovery efficiency of 90% by weight;
b. The storage tank is equipped with a pressure/vacuum valve; and
c. The storage tank was installed at the stationary source before July 1, 2014.

C. DEFINITIONS

C.1 CARB CERTIFIED: A Phase I or Phase II vapor recovery system, equipment, or any component thereof, for which CARB has evaluated its performance and issued a valid Executive Order pursuant to Health and Safety Code Section 41954. Each component of a system is a separate CARB certified item and cannot be replaced with a non-certified item or other items that are not certified for use with 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.

C.2 DELIVERY VESSEL: Any motor vehicle, trailer, or rail car used for the transportation of gasoline.

C.3 DRY BREAK: A Phase I vapor recovery component that opens only by connection to a mating device to ensure that no gasoline vapors escape from the storage tank before the vapor return line is connected and sealed.

C.4 ENHANCED VAPOR RECOVERY (EVR): Performance standards and specifications set forth in the CARB CP-201 (Certification Procedure for Vapor Recovery Systems at gasoline dispensing facilities) or in CARB CP-206 (Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Aboveground Storage Tanks).

C.5 EXECUTIVE ORDER: A document issued by CARB pursuant to Health and Safety Code Section 41954 certifying that a specific vapor recovery system meets the applicable performance specifications and setting conditions for the certification.

C.6 GASOLINE: Any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 4 pounds per square inch absolute or greater as determined by a method specified by test methods ASTM DM2879-97 (2007), ASTM D323-06, or ASTM D5191-07.

C.7 GASOLINE BULK PLANT: Any gasoline loading facility where the primary delivery of gasoline to a storage tank is other than by pipeline.

C.8 GASOLINE DISPENSING FACILITY: A stationary source consisting of one or more storage tanks and associated equipment that receives, stores, and dispenses gasoline to motor vehicle fuel tanks.

C.9 GASOLINE TERMINAL: Any loading facility where delivery of gasoline to a storage tank is primarily by pipeline. In the event the pipeline is not operational, delivery of gasoline to the storage tanks may be by delivery vessel.

C.10 LOADING FACILITY: A facility which uses a gasoline loading rack or set of such racks to load gasoline into delivery vessels.

C.11 MOTOR VEHICLE: Any self-propelled vehicle as defined in Section 415 of the California Vehicle Code.

C.12 PHASE I: A gasoline vapor recovery system or equipment that recovers the vapors generated during the transfer of gasoline from transport vessels into storage tanks.

C.13 PRESSURE/VACUUM VALVE: A valve that is installed on the vent pipe(s) of the gasoline storage tank to relieve pressure or vacuum build-up at preset values of pressure or vacuum within the tank.

C.14 RETAIL GASOLINE DISPENSING FACILITY: Any gasoline dispensing facility subject to the payment of California sales tax for the sale of gasoline to the public.

C.15 SPILL CONTAINER: An enclosed container around a Phase I fill pipe that is designed to collect gasoline spillage resulting from disconnection between the liquid gasoline delivery hose and the fill pipe.

C.16 SUBMERGED FILL PIPE:

a. Top Loading: Any fill pipe which has the discharge opening entirely submerged when the liquid level is 6 inches above the bottom of the tank.
b. Side Loading: Any fill pipe which has the discharge opening entirely submerged when the liquid level is 18 inches above the bottom of the tank.

C.17 VAPOR TIGHT: A vapor leak of less than 10,000 ppm hydrocarbon concentration, as determined by EPA Reference Method 21, using an appropriate analyzer calibrated with methane.

D. REQUIREMENTS

D.1 **SUBMERGED FILL PIPE:** A person shall not transfer or permit the transfer of gasoline into any stationary storage tank unless such storage tank is provided with a permanent submerged fill pipe.

D.2 **GASOLINE TRANSFER INTO STORAGE TANKS:** A person shall not transfer, allow the transfer or provide equipment for the transfer of gasoline from any transport vessel into any storage tank unless all of the following conditions are met:

a. The gasoline storage tank is equipped with a CARB certified Phase I Enhanced Vapor Recovery (EVR) system that shall prevent emission to the atmosphere of at least 95%, by volume, of the gasoline vapors displaced from the storage container during the transfer of gasoline into the container;
b. All aboveground storage tanks are equipped with a Standing Loss Control vapor recovery system as certified by the CARB pursuant to Certification Procedure CP-206;
c. All vapor recovery systems are maintained and operated according to the manufacturer's specifications and the most recent applicable CARB Executive Orders;
d. All vapor return lines are connected between the transport vessel and the storage tank while gasoline is transferred, and all associated hoses, fittings, and couplings are maintained in a liquid tight and vapor tight condition; and
e. The following equipment shall be installed, operated and maintained as specified below:
   1. All fill tubes are equipped with vapor tight caps;

2. All dry breaks are equipped with vapor tight seals and vapor tight caps;
3. All CARB certified coaxial fill tubes are spring-loaded and operated so that the vapor passage from the storage tank back to the transport vessel is not obstructed;
4. The fill tube assembly, including fill tube, fittings and gaskets, is maintained to prevent vapor leakage from any portion of the vapor recovery system;
5. All storage tank vapor return lines without dry breaks are equipped with vapor tight caps; and
6. Each vapor tight cap is in a closed position except when the fill tube or dry break it serves is actively in use.

D.3 **CERTIFICATION REQUIREMENTS:** A person shall not offer for sale, sell, or install within the District any Phase I vapor recovery equipment unless such equipment is CARB certified.

D.4 **VAPOR TIGHT:** All vapor recovery equipment and gasoline loading equipment shall be maintained in good working order and shall be leak free and vapor tight.

D.5 **MAINTENANCE INSPECTIONS – RETAIL GASOLINE FACILITY:** The owner/operator of any retail gasoline dispensing facility shall perform a maintenance inspection in accordance with the protocol specified in Section D.7 to ensure proper operating conditions of all components of the vapor recovery systems. The inspection shall be performed weekly, or at the frequency specified in the District Permit to Operate, whichever is more stringent.

D.6 **MAINTENANCE INSPECTIONS – NON-RETAIL GASOLINE FACILITY:** The owner/operator of any non-retail gasoline dispensing facility shall perform a maintenance inspection in accordance with the protocol specified in Section D.7 to ensure proper operating conditions of all components of any applicable vapor recovery system. The inspection shall be performed monthly, or at the frequency specified in the District Permit to Operate, whichever is more stringent.

D.7 **MAINTENANCE INSPECTION PROTOCOL:** The owner/operator of a gasoline dispensing facility shall, at a minimum, verify the following and record the results during the maintenance inspection:

a. The fill caps and gaskets are not missing, damaged, or loose;
b. The submerged fill pipe is not missing or damaged; and
c. If applicable:
   1. The spill container is clean and does not contain gasoline, and the spill containment drain valve is seating properly;
   2. The spring-loaded submerged fill tube seals properly against the coaxial fitting; and
   3. The dry break is not missing or damaged;

D.8 **SOURCE TESTING:**

a. Within 60 calendar days of the initial operation of a new or modified gasoline dispensing facility, the owner/operator shall conduct and successfully pass the performance tests required by the applicable District Authority to Construct permits and CARB Executive Orders.

b. The owner/operator of a gasoline dispensing facility shall conduct and successfully pass the reverification performance tests in accordance with the test methods specified in Section F, and any additional tests required by the applicable CARB Executive Orders or District Permit to Operate to verify the proper operation of the vapor recovery system. Each reverification test shall be completed within 12 months of the previous successful test.

c. A person who conducts performance tests shall comply with all of the following:
   1. Conduct tests in accordance with the applicable test methods specified in Section F and other CARB testing procedures. Tests shall be conducted using calibrated equipment meeting the calibration range and calibration intervals specified by the manufacturer;
   2. Provide notification to the District at least 10 days prior to testing, except for reverification tests conducted after a drive-off; and
   3. Submit a copy of the test report in District-approved format to the District within 15 days 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.

d. Notwithstanding Section c.2 above, the owner/operator that has failed a performance test or portions thereof may retest the facility provided that the person conducting the tests has complied with one of the following:
   1. Notify the District at least 12 hours prior to retesting; or
   2. When all necessary repairs are performed during the same day the facility has failed, 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 properly documented in the test reports and the repair logs pursuant to Section E.

e. The owner/operator shall not operate or resume operation of a gasoline dispensing facility unless the facility has successfully passed the applicable performance tests. Notwithstanding the above, when a dispenser associated with any equipment that has failed a test is isolated and shut down, the owner/operator may continue operation or resume operation of the remaining equipment at the facility provided that test results demonstrate that the remaining equipment is in good operating condition. All test results and the method of isolating the defective equipment shall be documented in the test reports to be submitted to the APCO pursuant to Section E.

E. MONITORING AND RECORDS:

E.1 **RECORDKEEPING:** A person who performs maintenance inspections, repairs, or testing at any gasoline dispensing facility 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 on site and any other test results or maintenance records that are required to demonstrate compliance for a period of at least 5 years. Records for non-retail gasoline dispensing facilities that are unmanned may be kept off site provided that the records are made available to District personnel within 72 hours. All records required by this section shall be made available to District personnel upon request both on site during inspections and offsite as specified.

a. Records of all defective components identified or repaired during maintenance inspections.

b. Repair logs shall include, at a minimum:
   1. Date and time of the repair;
   2. The name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer;
   3. Description of each component that was repaired, serviced, removed, or replaced, including the required component identification information; and
   4. If applicable, each component that was installed as a replacement, including the required component identification information; and

c. Records of tests, which shall include:
   1. Date and time of each test;
   2. Name, affiliation, address and phone number of the person(s) who performed the test;
   3. Test data and calibration data for all equipment used;
   4. Date and time that each test is completed;
   5. Date and time that the facility owner/operator is notified of the results;
   6. For a test that fails, a description of the reasons for the test failure shall also be included;
   7. For a retest following a failed performance or reverification test, description of repairs performed; and
   8. Copies of the test reports in District-approved format.

E.2 **RECORDKEEPING – TRANSFER OF OWNERSHIP:** If a facility undergoes a transfer of ownership, the new owner shall be responsible for collecting and maintaining all records from the previous owner, as specified in section E.1.

E.3 **BURDEN OF PROOF:** Any person claiming exemption pursuant to Section B.1, B.2, or B.3 shall have records available that would allow the APCO to verify the eligibility of the exemption.

F. TEST METHODS AND PROCEDURES

F.1 **STATIC PRESSURE DECAY:** The static pressure performance tests of a Phase I vapor recovery system for underground

and aboveground tanks shall be determined in accordance with CARB Test Procedure TP-201.3 and TP-201.3B or TP-206.3, as applicable.

F.2 **ALTERNATIVE TEST PROCEDURES:** Those vapor recovery systems whose CARB Executive Orders specify different tests to be performed instead of, or in addition to, the referenced test methods, or which, by their design, preclude the use of the referenced test methods, shall be tested in accordance with the test procedures specified in the applicable CARB Executive Orders or their equivalents as approved by the EPA.

RULE 3.9 STORAGE OF PETROLEUM PRODUCTS (Adopted 6/91)

For petroleum storage tanks with a storage capacity of 150,000 liters (39,630 gallons) of a petroleum product with a true vapor pressure of 1.5 or greater, such tanks shall be a pressure tank or shall be equipped with either a vapor recovery system or a floating roof as described in this Rule. Underground storage and dispensing tanks of JP-4 Jet fuel with an annual through put volume of less than 20,000,000 gallons of JP-4 Jet fuel are exempt from the requirements of this Rule. Tanks subject to this Section shall be in compliance by September 30, 1982.

The following definitions shall apply to storage of petroleum products:

Pressure Tank is a tank which maintains working pressure sufficient at all time to prevent hydrocarbon vapor or gas loss to the atmosphere.
Vapor Recovery System consists of a vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged and a vapor disposal system capable of processing such hydrocarbon vapors and gases so as to prevent their emission to the atmosphere, with all tank gauging and sampling devices gas tight except when gauging or sampling is taking place.
Floating Roof consists of a pontoon-type or double-deck type roof resting on the surface of the liquid contents and equipped with closure seals to close the space between the roof edge and tank wall. The control equipment provided for in the Rule shall not be used if the gasoline or petroleum distillate has a vapor pressure of 11.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

RULE 3.10 SULFUR OXIDES (Adopted 6/91)

A person shall not discharge into the atmosphere from any single source of emission whatsoever, any sulfur oxides in excess of 0.2 percent by volume (2,000 ppm) collectively calculated as sulfur dioxide (SO2).

RULE 3.13 CIRCUMVENTION (Adopted 6/91)

A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California.

RULE 3.14 SOLVENT DEGREASING (Adopted 6/91)

Any container of solvent which exceeds 55 gallons capacity shall contain instructions to store in a closed condition.

Rule 3.14 SURFACE PREPARATION AND CLEAN-UP
(Adopted 6/1991; Amended 8/1/2011)

A. GENERAL

A.1 **PURPOSE:** The purpose of this Rule is to limit the emissions of volatile organic compounds (VOC) from surface preparation and clean-up, and from the storage and disposal of materials used for surface preparation and clean-up.

A.2 **APPLICABILITY:** The provisions of this Rule apply to any owner or operator of any facility that uses VOC containing materials for surface preparation and clean-up, or any person who sells or distributes any solvent subject to the provisions of this rule.

A.3 **EXEMPTION - GENERAL:** The provisions of this rule, except for Section E.3, Burden of Proof, shall not apply to the following:

a. Cleaning operations using a solvent containing no more than 50 grams of VOC per liter of material;

b. Cleaning with aerosol products provided that the facility uses less than 160 fluid ounces of aerosol products per day. The use of such products shall comply with CARB regulations.

c. Dry cleaning operations;

d. Janitorial cleaning;

e. Stripping of cured coatings, cured adhesives, and cured inks;

f. Degreasers with an open top surface area of 1.0 square foot or less or with a capacity of 2.0 gallons or less, using unheated non-halogenated solvent exclusively, and the reservoir is covered when not processing work;

g. Any solvent degreasing operations that are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements of 40 CFR Part 63 Subpart T- National Emission Standards for Halogenated Solvent Cleaning;

h. Cleaning operations in printing pre-press or graphic arts pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning.

i. Sanitizing products which are labeled and applied to food-contact surfaces that are used to process dry and low-moisture food products and are not rinsed prior to contact with food.

A.4 **EXEMPTION - SOLVENT REQUIREMENTS:** The solvent VOC limits of Section C.1 shall not apply to any of the following applications:

a. Facilities with a solvent usage of 20 gallons or less per calendar year. Solvents with a VOC content of 50 grams per liter or less do not count towards the 20 gallon per year aggregate limit;

b. Wipe cleaning of solar cells, laser hardware, high precision optics, or polycarbonate plastics;

c. Wipe cleaning for performance laboratory tests on coatings, adhesives or inks, research and development programs, and laboratory tests in quality assurance laboratories;

d. Cleaning of cotton swabs to remove cottonseed oil before cleaning of high precision optics;

e. Cleaning of paper-based gaskets, and clutch assemblies where rubber is bonded to metal by means of an adhesive;

f. Cleaning of sterilization ink indicating equipment provided that the solvent usage is less than 1.5 gallons per day;

g. Coating and adhesive application processes utilized to manufacture transdermal drug delivery products using ethyl acetate;

h. Cleaning applications using bug and tar removal, provided that the bug and tar remover is regulated under the Consumer Products Regulation (California Code of Regulations Section 94507 et seq.).

B. DEFINITIONS

B.1 **AEROSOL PRODUCT:** A hand-held, non-refillable container which expels pressurized product ingredients by means of a propellant-induced force.

B.2 **AEROSPACE COMPONENT:** Any raw material, partial or completed fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile, or space vehicle, including mockups and prototypes.

B.3 **AIR-SOLVENT INTERFACE:** The point of contact between the exposed solvent and air.

B.4 **APPLICATION EQUIPMENT:** A device used to apply adhesive, coating, ink, or polyester resin material, such as but not limited to brushes, rollers, and spray guns.

B.5 **BATCH LOADED COLD CLEANER:** Any batch loaded, non-boiling solvent degreaser with an air-solvent interface.

B.6 **CONTROL DEVICE:** Equipment, such as an incinerator or adsorber, used to reduce or prevent air pollutants from reaching the ambient air.

B.7 **CURED COATINGS, CURED INKS, AND CURED ADHESIVES:** Coatings, inks, and adhesives which are dry to the touch.

B.8 **DEGREASER:** A tank, tray, drum or other container in which objects to be cleaned are exposed to a solvent or solvent vapor in order to remove contaminants. The objects to be cleaned include, but are not limited to, parts, products, tools, machinery, and equipment. An enclosed spray application equipment cleaning system is not a degreaser.

B.9 **ELECTRICAL APPARATUS COMPONENT:** An internal component such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in an apparatus that generates or transmits electrical energy including, but not limited to: alternators, generators, transformers, electric motors, cables, and circuit breakers, except for the actual cabinet in which the components are housed. Electrical components of graphic arts application equipment and hot-line tools are also included in this category.

B.10 **ELECTRONIC COMPONENT:** The portion of an assembly, including circuit card assemblies, printed wire assemblies, printed

circuit boards, soldered joints, ground wires, bus bars, and other electrical fixtures, except for the actual cabinet in which the components are housed.

B.11 **ENCLOSED GUN CLEANER:**

a. A device that fully encloses the spray guns, cups, nozzles, bowls, and other associated parts during washing, rinsing, and draining procedures; or

b. A device that is used for the cleaning of spray guns, cups, nozzles, bowls, and associated equipment 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 solvent container.

B.12 **EXEMPT COMPOUNDS:** As defined in District Rule 1.1.

B.13 **FLEXOGRAPHIC PRINTING:** A letterpress method utilizing flexible rubber or other elastomeric plates and rapid drying liquid inks.

B.14 **FREEBOARD HEIGHT:** The distance from the top of the solvent or solvent drain to the top of the tank for batch loaded cold cleaners.

B.15 **FREEBOARD RATIO:** The freeboard height divided by the width of the degreaser.

B.16 **GRAVURE PRINTING:** An intaglio printing process in which the ink is carried in minute etched or engraved wells on a roll or cylinder.

B.17 **HIGH PRECISION OPTICS:** An optical element used in an electro-optical device that is designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

B.18 **INTAGLIO PRINTING:** A printing operation done from a plate in which the image is etched or engraved into the surface.

B.19 **JANITORIAL CLEANING:** The cleaning of building or facility components, such as the floor, ceiling, walls, windows, doors, stairs, bathrooms, furnishings, and exterior surfaces of office equipment. The cleaning of work areas where manufacturing or repair activity is performed is excluded from this definition.

B.20 **LETTERPRESS PRINTING:** The method in which the image area is raised relative to the non-image area and the ink is transferred to the paper directly from the image surface.

B.21 **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.

B.22 **LITHOGRAPHIC PRINTING:** A plane-o-graphic method in which the image and non-image areas are on the same plane.

B.23 **LOW EMISSION SPRAY GUN CLEANER:** Any properly used spray equipment clean-up device which has passive solvent losses of no more than 0.6 grams per hour and has active solvent losses of no more than 15 grams per operating cycle as defined by the test method in Section F.7.

B.24 **LOW-MOISTURE FOOD:** A food with a water activity less than 0.85 or other applicable standards approved by the Air Pollution Control Officer, California Air Resources Board, or U.S. Environmental Protection Agency.

B.25 **MAINTENANCE CLEANING:** Surface preparation and clean-up, including sanitization, carried out to keep parts, products, tools, machinery, equipment, or general work areas in clean and good operational condition.

B.26 **MANUFACTURING PROCESS:** The process of making goods or articles by hand or by machinery.

B.27 **MEDICAL DEVICE:** Any instrument, apparatus, implement, machine contrivance, implant, in vitro reagent or other similar article, including any component or accessory that meets one of the following conditions:

a. It is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease; or

b. It is intended to affect the structure or any function of the body; or

c. It is defined in the National Formulary or the United States Pharmacopia, or any supplement to them.

B.28 **NON-ABSORBENT CONTAINERS:** Containers made of nonporous materials which do not allow the migration of the liquid solvent through them.

B.29 **NON-ATOMIZED SOLVENT FLOW:** The use of a solvent to remove uncured adhesives, uncured inks, uncured coatings, and contaminants from an article in the form of a liquid stream without atomization.

B.30 **PHARMACEUTICAL:** Any facility producing or blending chemicals for use in pharmaceutical products and or employing chemical processes in the manufacture of pharmaceutical products or medical devices.

B.31 **PHARMACEUTICAL PRODUCT:** A preparation or compound of medicinal drugs including, but not limited to, a prescription drug, analgesic, decongestant, antihistamine, cough suppressant, vitamin, mineral and herb, and is used by humans for consumption to enhance human health.

B.32 **PRE-PRESS OPERATIONS:** Operations associated with printing plate making using film photo processors and plate photo processors.

B.33 **PRINTING:** Any operation in the graphic arts that imparts color, design, alphabet, or numerals on a substrate.

B.34 **PRODUCT CLEANING:** The removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants such as dust, soil, oil, grease, etc., from the product or substrate during any manufacturing process, repair process, maintenance cleaning, adhesive application, coating application or ink application.

B.35 **REACTIVE ORGANIC GASES (ROG):** As defined in District Rule 1.1.

B.36 **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.

B.37 **REPAIR PROCESS:** The process of returning a damaged object or an object not operating properly to good condition.

B.38 **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.

B.39 **SOLVENT:** Any liquid containing a volatile organic compound or combination of volatile organic compounds, which is used to perform surface preparation and clean-up.

B.40 **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.

B.41 **STERILIZATION:** A process or operation that removes or prevents the growth of bacteria and other living microorganisms.

B.42 **STRIPPING:** The removal of cured inks, cured adhesives, and cured coatings.

B.43 **SURFACE PREPARATION AND CLEAN-UP:** The removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants such as dust, soil, oil, grease, etc., at any step in the production, repair, maintenance, or servicing of parts, products, tools, machinery, equipment, or general work areas and including the storage and disposal of VOC containing materials and the sterilization of food manufacturing and processing equipment.

B.44 **ULTRAVIOLET INKS:** Inks which dry by a polymerization reaction induced by ultraviolet radiation.

B.45 **VOLATILE ORGANIC COMPOUND (VOC):** Shall have the same meaning as Reactive Organic Gases (ROG).

B.46 **WATER ACTIVITY:** A measure of the free moisture in a food and is the quotient of the water vapor pressure of the substance divided by the vapor pressure of pure water at the same temperature.

B.47 **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.

C. STANDARDS

C.1 **SOLVENT VOC LIMITS:** A person shall not use a solvent to perform surface preparation and clean-up, or specify or require any person to use a solvent subject to the provisions of this Rule, unless the solvent complies with the applicable requirements set forth in Table 1.

TABLE 1: VOC CONTENT LIMITS

Category			VOC Content Limit (grams/Liter)	
			Prior to 12/31/2011	Effective 12/31/2011
Product Cleaning	Coatings and Adhesives			50
	Vehicles & Mobile Eqmt. [Rule 3.19]	Surface Prep	200	50
		Handheld Spray	780	50
	Wood Products [Rule 3.20]		200	50
	Metal Parts and Products			50
	Polyester Resins			50
	Inks			50
	Electrical Apparatus Components & Electronic Components			100
	Aerospace Components			900
	Medical Devices, Pharmaceuticals, and Pharmaceutical Products			800
Cleaning of Application Equipment	Coatings and Adhesives			50
	Vehicles & Mobile Eqmt. [Rule 3.19]			50
	Wood Products [Rule 3.20]			50
	Metal Parts and Products			50
	Polyester Resins			50
	Printing Operations: Screen, Lithographic, and Letterpress, Ultraviolet, Flexographic, Gravure (Publication)			100
	Aerospace Components			50
	Medical Devices, Pharmaceuticals, and Pharmaceutical Products			800
Sterilization of food manufacturing and processing equipment				200
General: Industries Not Specified Above				50

C.2 **CLEANING DEVICES AND METHODS REQUIREMENTS:** A person shall not perform surface preparation and clean-up unless one of the following cleaning devices or methods is used:

a. Wipe cleaning;

b. Hand-held spray bottles from which solvents are applied without a propellant-induced force;

c. Cleaning equipment which contains solvent and is closed during cleaning operations, except when depositing and

removing objects to be cleaned, and is closed during non-operation with the exception of maintenance and repair to the cleaning equipment itself;

d. Remote reservoir cold cleaners used pursuant to Section C.5;

e. 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;

f. 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;

g. Cleaning device or mechanism which has been determined by the APCO to result in equivalent or lower emissions than the applicable limits listed in Table 1.

C.3 **CLEANING DEVICES - GENERAL REQUIREMENTS:** Any person using equipment subject to the requirements of C.2.c, C.2.d, C.2.e, or C.2.f shall comply with all of the following requirements:

a. Do not clean porous or absorbent materials, such as cloth, leather, rope, or wood;

b. Use only solvent containers free of all liquid leaks;

c. Auxiliary equipment, such as pumps, pipelines, or flanges, shall not have any liquid leaks, visible tears, or cracks;

d. Any liquid leak, visible tear, or crack detected shall be repaired within 24 hours, or the leaking section of the cleaner shall be drained of all solvent and shut down until it is replaced or repaired;

e. Any liquid leak detected by the district shall constitute a violation of this section. This provision

shall not apply if the equipment is tagged out and if the leak is already noted in the facility's logbook.

C.4 **CLEANING DEVICES – BATCH LOADED COLD CLEANERS:** Any person using a batch loaded cold cleaner shall comply with all of the following requirements:

a. A cover must be used which prevents the solvent from evaporating when work is not being performed. The cover should be designed so that it can be opened and closed easily with one hand;

b. If the solvent initial boiling point is less than 248°F (120°C) and the solvent is heated above 122°F (50°C), then the cold cleaner shall have one of the following:

   1. A freeboard ratio greater or equal to 0.75; or

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

c. If the solvent initial boiling point is less than 248°F (120°C), then the drainage facility shall be internal so that the parts are enclosed under the cover while draining. The drainage facility may only be external for applications where an internal type cannot reasonably fit the cleaning system;

d. All cleaned parts shall be drained for at least 15 seconds after cleaning or until dripping ceases. Parts with blind holes or cavities shall be tipped or rotated before being removed, such that the solvent in the blind holes or cavities is drained in accordance with the above requirements;

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

f. Solvent agitation, where necessary, shall be carried out only by pump recirculation, ultrasonics, or a mixer. Air agitation shall not be allowed.

C.5 **CLEANING DEVICES - REMOTE RESERVOIR COLD CLEANERS:** Any person owning or operating a remote reservoir cold cleaner shall comply with all of the following requirements:

a. The operator shall prevent solvent vapors from escaping by using such devices as a cover or a valve when the remote reservoir is not being used, cleaned, or repaired;

b. The operator shall direct solvent flow in a manner that will prevent liquid solvent from splashing outside of the remote reservoir cold cleaner;

c. All remote reservoir cold cleaners shall consist of:

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

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

3. A drain plug or a cover for placement over the top of the sink when the equipment is not in use;

4. A freeboard height of at least six inches.

C.6 **CLEANING DEVICES - SPRAY EQUIPMENT:** Effective December 31, 2011, any person cleaning spray application equipment with a solvent containing more than 50 grams of VOC per liter shall use an enclosed system, or equipment that is proven to the satisfaction of the APCO to be equally effective as an enclosed system at controlling emissions. If an enclosed system is used, it shall totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures, and it shall be used according to the manufacturer's recommendations.

C.7 **CLEANING DEVICES – VEHICLE AND MOBILE EQUIPMENT COATINGS:** Effective until December 31, 2011, a person shall not use organic-based VOC-containing materials for the clean-up of spray equipment used in Vehicle and Mobile Equipment Coating Operations unless a low emission spray gun cleaner or an enclosed gun cleaner is properly used for cleaning.

C.8 **CLEANING DEVICES – WOOD PRODUCT COATINGS:** Effective until December 31, 2011, a person shall not use organic-based VOC-containing materials for the clean-up of spray equipment used in Wood Products Coating Operations unless a low emissions spray gun cleaner or an enclosed gun cleaner

is properly used for cleaning. Spray gun nozzles may be soaked in organic-based materials for cleaning provided the container (not to exceed five (5) gallons in size) is kept tightly covered at all times except when accessing the container. These provisions shall not apply to Wood Products Coating Operations using less than 55 gallons of coatings and/or strippers per year.

C.9 **EMISSION CONTROL SYSTEM:** In lieu of complying with the requirements in Sections C.1, C.2, or C.6 of this Rule, a operator may comply by using a collection and control device in association with surface preparation and clean-up provided that:

a. The system is approved in writing by the APCO; and

b. During emission producing activities, the system's control device shall have a capture efficiency of at least 90 percent by weight of the emissions generated, and one of the following requirements:

1. The control device has a control efficiency of at least 95 percent by weight; or

2. The VOC emission control system has an output of less than 50 parts per million (ppm) by weight calculated as carbon with no dilution, as verified by Section F.2.

C.10 **STORAGE AND DISPOSAL – GENERAL REQUIREMENTS:** All VOC-containing materials, whether in their form for intended use or as a waste or used product, including items such as cloth or paper laden with VOC containing materials, shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times, except when filling or emptying, and disposed of in a manner to prevent evaporation of VOCs into the atmosphere. Waste solvent and waste solvent residues shall be disposed of by one of the following methods:

a. A commercial waste solvent reclamation service licensed by the State of California;

b. At a facility that is federally or state licensed to treat, store, or dispose of such waste;

c. Recycling in conformance with Section 25143.2 of the California Health and Safety Code.

D. ADMINISTRATIVE REQUIREMENTS

D.1 **PROHIBITION OF SPECIFICATION:** A person shall not specify the use of any solvent used for surface preparation and clean-up subject to the provisions of this rule that does not meet the limits and requirements of this rule where such applications result in a violation of this rule. The requirements of this Section shall apply to all written or oral contracts.

D.2 **COMPLIANCE STATEMENT REQUIREMENT:** Any person who sells or distributes any solvent subject to this rule shall make available to the purchaser at the time of sale the following information:

a. The name of the solvent and the solvent manufacturer;

b. The maximum VOC content of the solvent as applied. The VOC content shall be expressed as grams of VOC per liter or pounds of VOC per gallon of solvent, as determined pursuant to Section F.2;

c. Recommendations regarding thinning, reducing, or mixing with any solvent, if applicable.

D.3 **OPERATION AND MAINTENANCE PLAN (O&M PLAN):** Any person using an emission control device pursuant to Section C.9 of this Rule must submit an O&M Plan. The O&M Plan shall be submitted prior to operation of new control devices and no later than December 31, 2011 for existing control devices. The O&M Plan shall specify operation and maintenance procedures which will demonstrate continuous operation of the control device during periods of emission producing operations. The O&M Plan shall also specify which records must be kept to document these operation and maintenance procedures. These records shall comply with the requirements of Section E.2 of this Rule.

E. MONITORING AND RECORDS

E.1 **RECORDKEEPING - GENERAL:** Any person using solvents subject to this Rule, except those exempt per Section A.3, shall

maintain records that contain all the data necessary to verify compliance and shall include the following:

a. The amount of each solvent used at each process, on a monthly basis. The following information should be included:

   1. The name of the solvent and the solvent manufacturer;

   2. The VOC content of the solvent, expressed in grams/liter or lbs/gallon;

   3. The mix ratio for the solvent, if applicable;

   4. The applicable VOC category, as listed in Table 1 of this Rule;

   5. A description of the cleaning device or method of application, as listed in Section C.2 of this Rule;

   6. The date and amount of solvent added;

   7. The date and amount of waste solvent removed, if applicable.

b. A copy of the Manufacturer's product data sheet or material safety data sheet of each solvent used.

c. Any other records needed to verify compliance with this rule.

E.2 **RECORDKEEPING - EMISSION CONTROL SYSTEMS:** If compliance with this rule is achieved through the use of an emission control system, the owner or operator shall maintain all of the following in addition to the provisions of Section E.1:

a. Daily usage records of all solvents;

b. Daily records of key operating parameters such as temperatures, pressures, flow rates, and hours of operation of the control device to verify compliance of the capture and control device;

c. Maintenance work which interferes with the operation of the control device.

E.3 **BURDEN OF PROOF:** Any person claiming exemption pursuant to Section A.3 shall have information available such as product data or material safety data sheets or records that would allow the APCO to verify the eligibility of the exemption.

E.4 **REPORTING:** All records required by Sections E.1, E.2, and E.3 shall be maintained on site for a period of three years and made available to the APCO upon request.

F. TEST METHODS AND CALCULATIONS

F.1 **GENERAL:** For the purposes of this Rule, the following test methods or calculation methods shall be used. Other test methods determined to be equivalent and approved in writing by the District and the EPA 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 or calculations shall constitute a violation of this Rule.

F.2 **VOC CONTENT:** The VOC content of organic solvents subject to the provisions of this rule shall be determined by procedures contained in EPA Reference Test Method 24 or 24A, or by using the manufacturer's product formulation data and the formula listed in Section F.4.

F.3 **EXEMPT COMPOUNDS:** Exempt compounds, referenced in Section B.12. and listed in Rule 1.1 – Definitions, shall be determined in accordance CARB Method 422 or SCAQMD Method 303 (Determination of Exempt Compounds).

F.4 **CALCULATION OF VOC CONTENT:** The VOC content per volume of solvent shall be calculated by the following equation:

$$VOC_{con} = \frac{(W_S - W_W - W_{ES})}{V_M}$$

Where:

VOC_{con}= Grams of VOC per liter of material
W_S = Weight of volatile compounds in grams
W_W = Weight of water in grams
WE_S = Weight of exempt compounds in grams
V_M = Volume of material in liters

F.5 **CAPTURE EFFICIENCY:** The capture efficiency of a VOC emission control system's collection device shall be

determined according to EPA's "Guidelines for Determining Capture Efficiency," January 9, 1995 and 40 CFR 51, Appendix M, Methods 204-204F, as applicable.

F.6 **CONTROL EFFICIENCY:** The control efficiency of a VOC emission control system's collection device shall be determined by using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Method 25, 25A, or 25B for measuring total gaseous organic concentrations at the inlet and outlet of the control device. EPA Method 18 or CARB Method 422 shall be used to determine the emissions of exempt compounds.

F.7 **SPRAY GUN CLEANING SYSTEMS:** The determination of emissions of VOC from spray gun cleaning systems shall be made using South Coast Air Quality Management District "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems" dated October 3, 1989.

F.8 **DETERMINATION OF WATER ACTIVITY IN FOODS:** Water activity in foods shall be determined in accordance with United States Food and Drug Administration Inspection Technical Guide number 39, Water Activity (a_w) in Foods.

Rule 3.15 – Architectural Coatings
(Adopted 6/1991; Amended 5/96, 11/13/02, 8/04/2014)

A. GENERAL

A.1 **PURPOSE:** To limit the quantity of Volatile Organic Compounds (VOCs) in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.

A.2 **APPLICABILITY:** Except as provided in subsection A.4, this rule is applicable to any person who:

a. Supplies, sells, or offers for sale any architectural coating for use within the District; or
b. Manufactures, blends, or repackages any architectural coating for use within the District; or
c. Applies or solicits the application of any architectural coating within the District.
d. The VOC limits in Table 1 of this rule shall be effective on January 1, 2015.
e. The November 13, 2002 version of Rule 3.15, Architectural Coatings VOC limits shall remain in effect until January 1, 2015. This Section does not apply to any coating that does not display the date or date code required by Section D.1.a of this rule.

A.3 **SEVERABILIY:** Each provision of this rule shall be deemed severable, and in the event that any provision of this rule is held to be invalid, the remainder of this rule shall continue in full force and effect.

A.4 **EXEMPTIONS:**

a. This rule does not apply to:
   1. Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.
   2. Any aerosol coating product.
b. With the exception of section E, this rule does not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less.

B. DEFINITIONS

B.1 **ADHESIVE:** Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

B.2 **AEROSOL COATING PRODUCT:** A pressurized coating product containing pigments or a resin that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications.

B.3 **ALUMINUM ROOF COATING:** A coating labeled and formulated exclusively for application to roofs and containing at least 84 grams of elemental aluminum pigment per liter of coating (at least 0.7 pounds per gallon). Pigment content shall be determined in accordance with SCAQMD Method 318-95, incorporated by reference in subsection F.5.d.

B.4 **APPURTENANCE:** Any accessory to a stationary structure coated at the site of installation, whether installed or detached, including, but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

B.5 **ARCHITECTURAL COATING:** A coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purposes of this rule.

B.6 **BASEMENT SPECIALTY COATING:** A clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a hydrostatic seal for basements and other below-grade surfaces. Basement Specialty Coatings must meet the following criteria:

a. Coating must be capable of withstanding at least 10 psi of hydrostatic pressure, as determined in accordance with ASTM D7088-04, which is incorporated by reference in subsection F.5.l.; and
b. Coating must be resistant to mold and mildew growth and must achieve a microbial growth rating of 8 or more, as determined in accordance with ASTM D3273-00 and ASTM D3274-95, incorporated by reference in subsection F.5.s.

B.7 **BITUMENS:** Black or brown materials, including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

B.8 **BITUMINOUS ROOF COATING:** A coating which incorporates bitumens that is labeled and formulated exclusively for roofing.

B.9 **BITUMINOUS ROOF PRIMER:** A primer which incorporates bitumens that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered or aged surface or improving the adhesion of subsequent surfacing components.

B.10 **BOND BREAKER:** A coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

B.11 **COATING:** A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

B.12 **COLORANT:** A concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

B.13 **CONCRETE CURING COMPOUND:** A coating labeled and formulated for application to freshly poured concrete to perform one or more of the following functions:

a. Retard the evaporation of water; or

b. Harden or dustproof the surface of freshly poured concrete.

B.14 **CONCRETE/MASONRY SEALER**: A clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one or more of the following functions:

a. Prevent penetration of water; or
b. Provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or
c. Harden or dustproof the surface of aged or cured concrete.

B.15 **DRIVEWAY SEALER**: A coating labeled and formulated for application to worn asphalt driveway surfaces to perform one or more of the following functions:

a. Fill cracks; or
b. Seal the surface to provide protection; or
c. Restore or preserve the appearance.

B.16 **DRY FOG COATING**: A coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

B.17 **EXEMPT COMPOUND**: For purposes of this rule, a compound that has been identified by the US EPA (40 CFR 51.100) as having negligible photochemical reactivity.

B.18 **FAUX FINISH COATING**: A coating labeled and formulated to meet one or more of the following criteria:

a. A glaze or textured coating used to create artistic effects, including, but not limited to: dirt, suede, old age, smoke damage, and simulated marble and wood grain; or
b. A decorative coating used to create a metallic, iridescent, or pearlescent appearance that contains at least 48 grams of pearlescent mica pigment or other iridescent pigment per liter of coating as applied (at least 0.4 pounds per gallon); or
c. A decorative coating used to create a metallic appearance that contains less than 48 grams of elemental metallic pigment per liter of coating as applied (less than 0.4 pounds per gallon), when tested

in accordance with SCAQMD Method 318-95, incorporated by reference in subsection F.5.d.; or

d. A decorative coating used to create a metallic appearance that contains greater than 48 grams of elemental metallic pigment per liter of coating as applied (greater than 0.4 pounds per gallon) and which requires a clear topcoat to prevent the degradation of the finish under normal use conditions. The metallic pigment content shall be determined in accordance with SCAQMD Method 318-95, incorporated by reference in subsection F.5.d.; or

e. A clear topcoat to seal and protect a Faux Finishing coating that meets the requirements of subsection B.18.a, B.18.b, B.18.c, or B.18.d. These clear topcoats must be sold and used solely as part of a Faux Finishing coating system, and must be labeled in accordance with subsection D.1.d.

B.19 **FIRE-RESISTIVE COATING:** A coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. The Fire Resistive category includes sprayed fire resistive materials and intumescent fire resistive coatings that are used to bring structural materials into compliance with federal, state, and local building code requirements. Fire Resistive coatings shall be tested in accordance with ASTM Designation E 119-07, incorporated by reference in subsection F.5.a. Fire Resistive coatings and testing agencies must be approved by building code officials.

B.20 **FLAT COATING:** A coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in subsection F.5.b.

B.21 **FLOOR COATING:** An opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors, and other horizontal surfaces which may be subject to foot traffic.

B.22 **FORM-RELEASE COMPOUND:** A coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

B.23 **GRAPHIC ARTS COATING OR SIGN PAINT:** A coating labeled and formulated for hand-application by artists using brush, airbrush, or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels.

B.24 **HIGH-TEMPERATURE COATING:** A high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

B.25 **INDUSTRIAL MAINTENANCE COATING:** A high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions listed in subsections B.25.a through B.25.e, and labeled as specified in subsection D.1.e:

a. Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation; or
b. Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions; or
c. Frequent exposure to temperatures above 121°C (250°F); or
d. Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, or scouring agents; or
e. Exterior exposure of metal structures and structural components.

B.26 **LOW SOLIDS COATING:** A coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material as recommended for application by the manufacturer. The VOC content for Low Solids Coatings shall be calculated in accordance with subsection B.59.

B.27 **MAGNESITE CEMENT COATING:** A coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

B.28 **MANUFACTURER'S MAXIMUM THINNING RECOMMENDATION:** The maximum recommendation for thinning that is indicated on the label or lid of the coating container.

B.29 **MASTIC TEXTURE COATING:** A coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (at least 0.010 inch) dry film thickness.

B.30 **MEDIUM DENSITY FIBERBOARD (MDF):** A composite wood product, panel, molding, or other building material composed of cellulosic fibers (usually wood) made by dry forming and pressing of a resinated fiber mat.

B.31 **METALLIC PIGMENTED COATING:** A coating that is labeled and formulated to provide a metallic appearance. Metallic Pigmented coatings must contain at least 48 grams of elemental metallic pigment (excluding zinc) per liter of coating as applied (at least 0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95, incorporated by reference in subsection F.5.d. The Metallic Pigmented Coating category does not include coatings applied to roofs or Zinc-Rich Primers.

B.32 **MULTI-COLOR COATING:** A coating that is packaged in a single container and that is labeled and formulated to exhibit more than one color when applied in a single coat.

B.33 **NONFLAT COATING:** A coating that is not defined under any other definition in this rule and that registers a gloss of 15 or greater on an 85-degree meter and 5 or greater on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in subsection F.5.c.

B.34 **NONFLAT – HIGH GLOSS COATING:** A nonflat coating that registers a gloss of 70 or greater on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in subsection F.5.c. Nonflat – High Gloss coatings must be labeled in accordance with subsection D.1.i.

B.35 **PARTICLEBOARD:** A composite wood product panel, molding, or other building material composed of cellulosic material (usually wood) in the form of discrete particles, as distinguished from fibers, flakes, or strands, which are pressed together with resin.

B.36 **PEARLESCENT:** Exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

B.37 **PLYWOOD:** A panel product consisting of layers of wood veneers or composite core pressed together with resin. Plywood includes panel products made by either hot or cold pressing (with resin) veneers to a platform.

B.38 **POST-CONSUMER COATING:** Finished coatings generated by a business or consumer that have served their intended end uses, and are recovered from or otherwise diverted from the waste stream for the purpose of recycling.

B.39 **PRE-TREATMENT WASH PRIMER:** A primer that contains a minimum of 0.5 percent acid, by weight, when tested in accordance with ASTM Designation D 1613-06, incorporated by reference in subsection F.5.e, which is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

B.40 **PRIMER, SEALER, AND UNDERCOATER:** A coating labeled and formulated for one or more of the following purposes:

a. To provide a firm bond between the substrate and the subsequent coatings; or
b. To prevent subsequent coatings from being absorbed by the substrate; or
c. To prevent harm to subsequent coatings by materials in the substrate; or
d. To provide a smooth surface for the subsequent application of coatings; or
e. To provide a clear finish coat to seal the substrate; or
f. To block materials from penetrating into or leaching out of a substrate.

B.41 **REACTIVE PENETRATING SEALER:** A clear or pigmented coating that is labeled and formulated for application to above-grade concrete and masonry substrates to provide protection from water and waterborne contaminants, including, but not limited to, alkalis, acids, and salts. Reactive Penetrating Sealers must penetrate into concrete and masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. Reactive Penetrating Sealers line the pores of concrete and masonry substrates

with a hydrophobic coating, but do not form a surface film. Reactive Penetrating Sealers must meet all of the following criteria:

a. The Reactive Penetrating Sealer must improve water repellency at least 80 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with one or more of the following standards, incorporated by reference in subsection F.5.t: ASTM C67-07, or ASTM C97-02, or ASTM C140-06; and
b. The Reactive Penetrating Sealer must not reduce the water vapor transmission rate by more than 2 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with ASTM E96/E96M-05, incorporated by reference in subsection F.5.u; and
c. Products labeled and formulated for vehicular traffic surface chloride screening applications must meet the performance criteria listed in the National Cooperative Highway Research Report 244 (1981), incorporated by reference in subsection F.5.v.

Reactive Penetrating Sealers must be labeled in accordance with subsection D.1.g.

B.42 **RECYCLED COATING:** An architectural coating formulated such that it contains a minimum of 50% by volume post-consumer coating, with a maximum of 50% by volume secondary industrial materials or virgin materials.

B.43 **ROOF COATING:** A non-bituminous coating labeled and formulated for application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation.

B.44 **RUST PREVENTATIVE COATING:** A coating formulated to prevent the corrosion of metal surfaces for one or more of the following applications:

a. Direct-to-metal coating; or
b. Coating intended for application over rusty, previously coated surfaces.

The Rust Preventative category does not include the following:

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

Rust Preventative coatings are for metal substrates only and must be labeled as such, in accordance with the labeling requirements in subsection D.1.f.

B.45 **SECONDARY INDUSTRIAL MATERIALS:** Products or by-products of the paint manufacturing process that is of known composition and have economic value but can no longer be used for their intended purpose.

B.46 **SEMITRANSPARENT COATING:** A coating that contains binders and colored pigments and is formulated to change the color of the surface, but not conceal the grain pattern or texture.

B.47 **SHELLAC:** A clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Laciffer lacca*), and formulated to dry by evaporation without a chemical reaction.

B.48 **SHOP APPLICATION:** Application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

B.49 **SOLICIT:** To require for use or to specify, by written or oral contract.

B.50 **STAIN:** A semitransparent or opaque coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

B.51 **STONE CONSOLIDANT:** A coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. Stone Consolidants must penetrate into stone substrates to create bonds between particles and consolidate deteriorated material. Stone Consolidants must be specified and used in accordance with ASTM E2167-01, incorporated by reference in subsection F.5.w.

Stone Consolidants are for professional use only and must be labeled as such, in accordance with the labeling requirements in subsection D.1.h.

B.52 **SWIMMING POOL COATING:** A coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals. Swimming pool coatings include coatings used for swimming pool repair and maintenance.

B.53 **TINT BASE:** An architectural coating to which colorant is added after packaging in sale units to produce a desired color.

B.54 **TRAFFIC MARKING COATING:** A coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces, including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways.

B.55 **TUB AND TILE REFINISH COATING:** A clear or opaque coating that is labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Tub and Tile Refinish coatings must meet all of the following criteria:

a. The coating must have a scratch hardness of 3H or harder and a gouge hardness of 4H or harder. This must be determined on bonderite 1000, in accordance with ASTM D3363-05, incorporated by reference in subsection F.5.o.; and
b. The coating must have a weight loss of 20 milligrams or less after 1000 cycles. This must be determined with CS-17 wheels on bonderite 1000, in accordance with ASTM D4060-07, incorporated by reference in subsection F.5.p; and
c. The coating must withstand 1000 hours or more of exposure with few or no #8 blisters. This must be determined on unscribed bonderite, in accordance with ASTM D4585-99, and ASTM D714-02e1, incorporated by reference in subsection F.5.q; and
d. The coating must have an adhesion rating of 4B or better after 24 hours of recovery. This must be determined on unscribed bonderite, in accordance with ASTM D4585-99 and ASTM D3359-02, incorporated by reference in subsection F.5.n.

B.56 **VENEER:** Thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated veneer lumber, or other products.

B.57 **VIRGIN MATERIALS:** Materials that contain no post-consumer coatings or secondary industrial materials.

B.58 **VOLATILE ORGANIC COMPOUND (VOC):** As defined in District Rule 1.1.

B.59 **VOC ACTUAL:** VOC Actual is the weight of VOC per volume of coating and it is calculated with the following equation:

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

Where:

VOC Actual = the grams of VOC per liter of coating (also known as "Material VOC")

Ws = weight of volatiles, in grams

Ww = weight of water, in grams

Wec = weight of exempt compounds, in grams

Vm = volume of coating, in liters

B.60 **VOC CONTENT:** The weight of VOC per volume of coating. VOC Content is VOC Regulatory, as defined in subsection B.61, for all coatings except those in the Low Solids category. For coatings in the Low Solids category, the VOC Content is VOC Actual, as defined in subsection B.59. If the coating is a multi-component product, the VOC content is VOC Regulatory as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.

B.61 **VOC REGULATORY:** VOC Regulatory is the weight of VOC per volume of coating, less the volume of water and exempt compounds. It is calculated with the following equation:

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

Where:

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

Ws = weight of volatiles, in grams

Ww = weight of water, in grams

Wec	=	weight of exempt compounds, in grams
Vm	=	volume of coating, in liters
Vw	=	volume of water, in liters
Vec	=	volume of exempt compounds, in liters

B.62 **WATERPROOFING MEMBRANE:** A clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents any penetration of liquid water into the substrate. Waterproofing Membranes are intended for the following waterproofing applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters, and under flooring materials. Waterproofing Membranes must meet the following criteria:

a. Coating must be applied in a single coat of at least 25 mils at least 0.025 inch) dry film thickness; and
b. Coatings must meet or exceed the requirements contained in ASTM C836-06, incorporated by reference in subsection F.5.r.

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

B.63 **WOOD COATING:** Coatings labeled and formulated for application to wood substrates only. The Wood Coatings category includes the following clear and semitransparent coatings: lacquers; varnishes; sanding sealers; penetrating oils; clear stains; wood conditioners used as undercoats; and wood sealers used as topcoats. The Wood Coatings category also includes the following opaque wood coatings: opaque lacquers; opaque sanding sealers; and opaque lacquer undercoaters. The Wood Coatings category does not include the following: clear sealers that are labeled and formulated for use on concrete/masonry surfaces; or coatings intended for substrates other than wood.

Wood Coatings must be labeled "For Wood Substrates Only", in accordance with subsection D.1.j.

B.64 **WOOD PRESERVATIVE:** A coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United

States Code (U.S.C.) Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

B.65 **WOOD SUBSTRATE:** A substrate made of wood, particleboard, plywood, medium density fiberboard, rattan, wicker, bamboo, or composite products with exposed wood grain. Wood Products do not include items comprised of simulated wood.

B.66 **ZINC-RICH PRIMER:** A coating that meets all of the following specifications:

a. Coating contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and
b. Coating is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings; and
c. Coating is intended for professional use only and is labeled as such, in accordance with the labeling requirements in subsection D.1.k.

C. STANDARDS

C.1 **VOC CONTENT LIMITS:** Except as provided in subsections C.2 or C.3, no person shall:

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

C.2 **MOST RESTRICTIVE VOC LIMIT:** If a coating meets the definition in Section B for one or more specialty coating categories that are listed in Table 1, then that coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat – High Gloss coatings, but is required to meet the VOC limit for the applicable specialty coating listed in Table 1.

With the exception of the specialty coating categories specified in subsections C.2.a through C.2.k, if a coating

is recommended for use in more than one of the specialty coating categories listed in Table 1, the most restrictive (or lowest) VOC content limit shall apply. This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf.

a. Metallic pigmented coatings.
b. Shellacs.
c. Pretreatment wash primers.
d. Industrial maintenance coatings.
e. Low-solids coatings.
f. Wood preservatives.
g. High temperature coatings.
h. Bituminous roof primers.
i. Aluminum roof coatings.
j. Zinc-rich primers.
k. Wood Coatings.

C.3 **SELL-THROUGH OF COATINGS:** A coating manufactured prior to the effective date specified for that coating in Table 1, and that complied with the standards in effect at the time the coating was manufactured, may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in Table 1 may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This subsection C.3 does not apply to any coating that does not display the date or date-code required by subsection D.1.a.

C.4 **PAINTING PRACTICES:** All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.

C.5 **THINNING:** No person who applies or solicits the application of any architectural coating shall apply a coating that is

thinned to exceed the applicable VOC limit specified in Table 1.

C.6 **COATINGS NOT LISTED IN TABLE 1:** For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table 1, the VOC content limit shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat – High Gloss coating, based on its gloss, as defined in subsections B.20, B.33, and B.34, and the corresponding Flat, Nonflat, or Nonflat – High Gloss VOC limit in Table 1 shall apply.

C.7 **EARLY COMPLIANCE PROVISION:** Prior to January 1, 2015, any coating that meets a definition in Section B for a coating category listed in the Table 1 and complies with the applicable VOC limit in the Table 1 and with Sections C2 and D shall be considered in compliance with this rule.

D. CONTAINER LABELING REQUIREMENTS

D.1 Each manufacturer of any architectural coating subject to this rule shall display the information listed in subsections D.1.a through D.1.k on the coating container (or label) in which the coating is sold or distributed.

a. **Date Code:** The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB.
b. **Thinning Recommendations:** A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.
c. **VOC Content:** Each container of any coating subject to this rule shall display one of the following values in grams of VOC per liter of coating:

1. Maximum VOC Content as determined from all potential product formulations; or
2. VOC Content as determined from actual formulation data; or

3. VOC Content as determined using the test methods in subsection F.2.

If the manufacturer does not recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the container must display the VOC content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing. VOC Content shall be determined as defined in subsections B.59, B.60, and B.61.

d. **Faux Finishing Coatings:** the labels of all Faux Finishing coatings shall prominently display the statement "This product can only be sold or used as part of a Faux Finishing coating system".
e. **Industrial Maintenance Coatings:** the labels of all Industrial Maintenance coatings shall prominently display the statement "Not for residential use," or "Not Intended for residential use," or "For industrial use only," or "For professional use only".
f. **Rust Preventative Coatings:** The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only."
g. **Reactive Penetrating Sealers:** the labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer".
h. **Stone Consolidants:** the labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant - For Professional Use Only".
i. **Nonflat - High Gloss Coatings:** The labels of all Nonflat – High Gloss coatings shall prominently display the words "High Gloss."
j. **Wood Coatings:** the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only".
k. **Zinc Rich Primers:** the labels of all Zinc Rich Primers shall prominently display the statement "Not for residential use," or "Not Intended for residential use," or "For industrial use only," or "For Professional Use Only".

E. REPORTING REQUIREMENTS

E.1 **SALES DATA:** A responsible official from each manufacturer shall upon request of the APCO, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. The responsible official shall within 180 days provide information, including, but not limited to:

a. the name and mailing address of the manufacturer;
b. the name, address and telephone number of a contact person;
c. the name of the coating product as it appears on the label and the applicable coating category;
d. whether the product is marketed for interior or exterior use or both;
e. the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);
f. the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;
g. the names and CAS numbers of the VOC constituents in the product;
h. the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition;
i. whether the product is marketed as solventborne, waterborne, or 100% solids;
j. description of resin or binder in the product;
k. whether the coating is a single-component or multi-component product;
l. the density of the product in pounds per gallon;
m. the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition; and
n. the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition.

E.2 All sales data listed in subsections E.1.a to E.1.n shall be maintained by the responsible official for a minimum of three years. Sales data submitted by the responsible

official to the APCO may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations Sections 91000-91022.

F. COMPLIANCE PROVISIONS AND TEST METHODS

F.1 **CALCULATION OF VOC CONTENT:** For the purpose of determining compliance with the VOC content limits in Table 1, the VOC content of a coating shall be determined as defined in subsection B.59, B.60, or B.61. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the VOC content must be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.

F.2 **VOC CONTENT OF COATING:** To determine the physical properties of a coating in order to perform the calculations in subsection B.59 or B.61, the reference method for VOC content is U.S. EPA Method 24, incorporated by reference in subsection F.5.i, except as provided in subsections F.3 and F.4. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised 1996), incorporated by reference in subsection F.5.j. The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised 1993), BAAQMD Method 43 (Revised 1996), or BAAQMD Method 41 (Revised 1995), as applicable, incorporated by reference in subsections F.5.g, F.5.e, and F.5.f, respectively. To determine the VOC content of a coating, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in subsection F.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, record keeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as

specified in subsection F.3. The APCO may require the manufacturer to conduct a Method 24 analysis.

F.3 **ALTERNATIVE TEST METHODS:** Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with subsection F.2, after review and approved in writing by the District, the ARB, and the U.S. EPA, may also be used.

F.4 **METHACRYLATE TRAFFIC MARKING COATINGS:** Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in subsection F.5.k. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.

F.5 **TEST METHODS:** The following test methods are incorporated by reference herein, and shall be used to test coatings subject to the provisions of this rule:

a. **Fire Resistance Rating:** The fire resistance rating of a fire-resistive coating shall be determined by ASTM E 119-07, "Standard Test Methods for Fire Tests of Building and Construction Materials" (see section B, Fire-Resistive Coating).
b. **Gloss Determination:** The gloss of a coating shall be determined by ASTM D 523-89 (1999), "Standard Test Method for Specular Gloss" (see section B, Flat Coating, Nonflat Coating, and Nonflat - High Gloss Coating).
c. **Metal Content of Coatings:** The metallic content of a coating shall be determined by SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see section B, Aluminum Roof, Faux Finishing, and Metallic Pigmented Coating).
d. **Acid Content of Coatings:** The acid content of a coating shall be determined by ASTM D 1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products" (see section B, Pretreatment Wash Primer).

e. **Exempt Compounds--Siloxanes:** Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with section F by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," *BAAQMD Manual of Procedures*, Volume III, adopted 11/6/96 (see section B, Volatile Organic Compound, and subsection F.2).

f. **Exempt Compounds--Parachlorobenzotrifluoride (PCBTF):** The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with section F by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," *BAAQMD Manual of Procedures*, Volume III, adopted 12/20/95 (see section D, Volatile Organic Compound, and subsection F.2).

g. **Exempt Compounds:** The content of compounds exempt under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303- 91 (Revised 1993), "Determination of Exempt Compounds," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see section B, Volatile Organic Compound, and subsection F.2).

h. **VOC Content of Coatings:** The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in appendix A of 40 *Code of Federal Regulations* (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings" (see subsection F.2).

i. **Alternative VOC Content of Coatings:** The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see subsection F.2).

j. **Methacrylate Traffic Marking Coatings:** The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (see subsection F.4).

k. **Hydrostatic Pressure for Basement Specialty Coatings:** ASTM D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade

Applications Applied to Masonry" (see section B, Basement Specialty Coating).

l. **Tub and Tile Refinish Coating Adhesion:** ASTM D 4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test" (see section B, Tub and Tile Refinish Coating).

m. **Tub and Tile Refinish Coating Hardness:** ASTM D 3363-05, "Standard Test Method for Film Hardness by Pencil Test" (see section B, Tub and Tile Refinish Coating).

n. **Tub and Tile Refinish Coating Abrasion Resistance:** ASTM D 4060-07, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser" (see section B, Tub and Tile Refinish Coating).

o. **Tub and Tile Refinish Coating Water Resistance:** ASTM D 4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D714-02e1, "Standard Test Method for Evaluating Degree of Blistering of Paints" (see section B, Tub and Tile Refinish Coating).

p. **Waterproofing Membrane:** ASTM C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course" (see section B, Waterproofing Membrane).

q. **Mold and Mildew Growth for Basement Specialty Coatings:** ASTM D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation" (see section B, Basement Specialty Coating).

r. **Reactive Penetrating Sealer Water Repellency:** ASTM C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile"; or ASTM C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units" (see section B, Reactive Penetrating Sealer).

s. **Reactive Penetrating Sealer Water Vapor Transmission:** ASTM E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials" (see section B, Reactive Penetrating Sealer).

t. **Reactive Penetrating Sealer - Chloride Screening Applications:** National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures" (see section B, Reactive Penetrating Sealer).
u. **Stone Consolidants:** ASTM E2167-01, "Standard Guide for Selection and Use of Stone Consolidants" (see section B, Stone Consolidant).

Table 1
VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS
Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

Coating Category	VOC Limit (g/l) Effective 1/1/2015
Flat Coatings	50
Nonflat Coatings	100
Nonflat - High Gloss Coatings	150
Specialty Coatings	
Aluminum Roof Coatings	400
Basement Specialty Coatings	400
Bituminous Roof Coatings	50
Bituminous Roof Primers	350
Bond Breakers	350
Concrete Curing Compounds	350
Concrete/Masonry Sealers	100
Driveway Sealers	50
Dry Fog Coatings	150
Faux Finishing Coatings	350
Fire Resistive Coatings	350
Floor Coatings	100
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High Temperature Coatings	420
Industrial Maintenance Coatings	250
Low Solids Coatings[a]	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	100
Metallic Pigmented Coatings	500
Multi-Color Coatings	250
Pre-Treatment Wash Primers	420
Primers, Sealers, and Undercoaters	100
Reactive Penetrating Sealers	350

Table 1
(Continued)

Coating Category	VOC Limit (g/l) Effective 1/1/2015
Recycled Coatings	250
Roof Coatings	50
Rust Preventative Coatings	250
Shellacs: • Clear • Opaque	 730 550
Stains	250
Stone Consolidants	450
Swimming Pool Coatings	340
Traffic Marking Coatings	100
Tub and Tile Refinish Coatings	420
Waterproofing Membranes	250
Wood Coatings	275
Wood Preservatives	350
Zinc-Rich Primers	340

a. Limit is expressed as VOC Actual.

RULE 3.17 **WOOD HEATING DEVICES** (Adopted 6/96, Amended 10/05/09)

A. PURPOSE

A.1 The purpose of this rule is to reduce particulate matter pollution from wood burning appliances.

B. APPLICABILITY

B.1 The provisions of this rule shall apply at all elevations within the Feather River Air Quality Management District.

C. SEVERABILITY

C.1 If any section, subsection, sentence, clause, phrase, or portion of this rule 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 thereof.

D. EFFECTIVE DATE

D.1 The provisions of this rule shall be effective on the date of adoption.

E. DEFINITIONS

E.1 **EPA** means the United States Environmental Protection Agency.

E.2 **EPA certified wood heating device** means any wood or other solid-fuel-burning appliance primarily utilized for space or water heating or aesthetic purposes that is certified by the EPA as meeting the performance and emission standards as set forth in Title 40 CFR Section 60 Subpart AAA.

E.3 **Fireplace** means any permanently installed masonry or factory built device designed to be used with an air-to-fuel ratio greater than or equal to 35-to-1. Fireplaces installed with a dedicated natural gas or propane connection under the California Code of Regulations Title 24 Part 2, Volume 2, Section 2111A, and not convertible to solid fuel appliances are exempt from the requirements of this Rule.

E.4 **Masonry Heater** means any permanently installed device that meets the definition of a masonry heater in ASTM E 1602-03.

E.5 **Pellet-Fueled Heater** means any heater that operates on pellet fuel and is either EPA certified or is exempt under EPA requirements as set forth in Title 40 CFR Part 60 Subpart AAA Section 530.

E.6 **Permanently Inoperable** means modified in such a way that a device can no longer operate as a wood heating device.

E.7 **Person** means any person, firm, association, organization, partnership, business trust, corporation, company contractor, supplier, installer, user, owner, state or local governmental agency or public district, or any officer or employee thereof.

E.8 **Unseasoned Wood** means wood of any species that has not been sufficiently dried or contains 20 percent or more moisture by weight. Percent moisture content of wood shall be determined by ASTM test method D4442-92~~, or other method approved by the Air Pollution Control Officer~~.

E.9 **Solid Fuel** means wood, coal, or any other nongaseous or nonliquid fuels.

E.10 **Used Wood Heating Device** means any wood heating device that has been used at least once, except wood heaters that have been used by retailers for the purpose of demonstration.

E.11 **Wood Cook Stove** means any wood-burning appliance designed primarily for cooking food as described in the Code of Federal Regulations (CFR) Section 60.531.

E.12 **Wood-Heating Device** means any fireplace, wood-burning heater, or pellet-fueled heater, or similar enclosed, permanently installed appliance capable of burning wood or other solid fuel and intended for space heating or aesthetic purposes or domestic water heating, which has a heat input less than one million British thermal units per hour.

F. REQUIREMENTS

F.1 All new and used wood heating devices used for the first time in existing buildings and those used in all new building projects constructed after the adoption date of this rule within the boundaries of Feather River Air Quality Management District shall meet emission and performance requirements in section F.2.

F.2 No person shall sell, offer for sale, supply, install, or transfer a new or used wood heating device unless it meets one of the following criteria:

a. It is an EPA certified wood heating device.

b. It is a masonry heater.

c. It is a pellet-fueled heater.

d. It has been rendered permanently inoperable as determined by the Air Pollution Control Officer.

~~e. It has been determined to meet the particulate-matter emission standard of no more than 4.1 grams per hour particulate-matter emission for catalytic and 7.5 grams per hour for noncatalytic appliances, and is approved in writing by the Air Pollution Control Officer.~~

F.3 Section F.2 parts a through e shall not apply to an existing wood heating device which is permanently installed in a structure which is being offered for sale.

F.4 The Air Pollution Control Officer may issue an advisory through local communications media to recommend actions for the use of wood heating devices whenever conditions within the District are projected to cause an exceedence of a State or National Ambient Air Quality Standard.

a. Recommended actions can include but are not limited to: allow, reduce, curtail, limits on specific areas, or request to cease.

G. **PROHIBITIONS**

G.1 No person shall cause or allow materials to be burned in a fireplace or wood heating device such that the discharge of air contaminants would cause a public nuisance, pursuant to Section 41700 of the California Health and Safety Code.

G.2 No person shall cause or allow any of the following materials to be burned in a wood heating device:

a. Prohibited Materials as described in District Rule 2.0 Section E.15.

b. Unseasoned wood.

c. Any other material not intended by a manufacturer for use as a solid fuel in a wood heating device.

Rule 3.19 Vehicle and Mobile Equipment Coating Operations
(Adopted 8/6/98, Amended 8/1/2011)

A. DEFINITIONS:

A.1 Active Solvent Losses: The active solvent losses are the emissions during all steps of a spray gun equipment cleaning operation and are expressed in units of grams of solvent loss per cleaning cycle.

A.2 Antiglare/Safety Coating: A coating that does not reflect light.

A.3 Camouflage Coating: A coating applied on motor vehicles to conceal such vehicles from detection.

A.4 Catalyst: A substance whose presence initiates the reaction between chemical compounds.

A.5 Coating: A liquid, liquefiable or mastic composition which is converted to a solid protective, decorative, or functional adherent film after application as a thin layer.

A.6 Color Match: The ability of a repair coating to blend into an existing coating so that color difference is not visible.

A.7 Electrophoretic Dip: A coating application method where the coating is applied by dipping the component into a coating bath and an electrical potential difference exists between the component and the bath.

A.8 Electrostatic Application: A sufficient charging of atomized paint droplets to cause deposition principally by electrostatic attraction. This application shall be operated at a minimum of 60 kV power.

A.9 Exempt Compounds: As defined in District Rule 1.1.

A.10 Extreme Performance Coating: Any coating used on the surface of a vehicle, mobile equipment or their parts or components which is exposed to extreme environmental conditions such as high temperatures, corrosive or erosion environments, during the vehicle's principal use.

A.11 Four-Stage Coating System: A topcoat system composed of a ground coat portion, a pigmented basecoat portion, a semi-transparent midcoat portion, and two transparent clearcoat portions. Four-stage coating systems' VOC content shall be calculated according to the following formula:

$$\text{VOC T4-stage} = \frac{\text{VOCgc} + \text{VOCbc} + \text{VOCmc} + (2 * \text{VOCcc})}{5}$$

Where:
VOC T4-stage = the average of the VOC content as applied in

the ground coat (gc), basecoat (bc), midcoat (mc), and clearcoat (cc) system.

VOCgc = the VOC content as applied of any given groundcoat.

VOCbc = the VOC content as applied in the basecoat.

VOCmc = the VOC content as applied of any given midcoat.

VOCcc = the VOC content as applied of any given clearcoat.

A.12 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:

$$\text{Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds} = \frac{Ws - Ww - Wes}{Vm - Vw - Ves}$$

Where:
Ws = Weight of volatile compounds (grams)
Ww = Weight of water (grams)
Wes = Weight of exempt organic compounds (grams)
Vm = Volume of material (liters)
Vw = Volume of water (liters)
Ves = Volume of exempt organic compounds (liters)

A.13 Grams of VOC Per Liter of Material: The weight of VOC per volume of material and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Material} = \frac{Ws - Ww - Wes}{Vm}$$

Where:
Ws = Weight of volatile compounds (grams)
Ww = Weight of water (grams)
Wes = Weight of exempt organic compounds (grams)
Vm = Volume of material (liters)

A.14 Group I Vehicles: Passenger cars, large/heavy duty truck cabs and chassis, light and medium duty trucks and vans, and motorcycles.

A.15 Group II Vehicles: Those vehicles which are not Group I vehicles, and mobile equipment.

A.16 Gun Washer: Electrically or pneumatically operated system that is designed to clean spray application equipment while enclosed. A gun washer may also be considered a gun cleaning system that consists of spraying solvent into an enclosed container using a snug fitting.

A.17 Hand Application Methods: The application of coatings by non-

mechanical hand-held equipment including but not limited to paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

A.18 High-Volume, Low-Pressure Application (HVLP): Spray equipment that uses a high volume of air delivered at pressures between 0.1 and 10 psig.

A.19 Low Emission Spray Gun Cleaner: Any properly used spray equipment clean-up device which has passive solvent losses of no more than 0.6 grams per hour and has active solvent losses of no more than 15 grams per operating cycle as defined by the test method in Subsection E.6.

A.20 Metallic/Iridescent Topcoat: Any topcoat which contains more than 5 g/l (.042 lb./gal) of iridescent particles, composed of metal as metallic particles or silicon as mica particles, as applied, where such particles are visible in the dried film.

A.21 Mobile Equipment: Any equipment, other than vehicles (as defined in this rule), which may be drawn or is capable of being driven on a roadway, including, but not limited to, truck trailers, camper shells, mobile cranes, bulldozers, concrete mixers, street cleaners, golf carts, all terrain vehicles, implements of husbandry, and hauling equipment used inside and around airports, docks, depots, and industrial and commercial plants, but excluding utility bodies.

A.22 Operating Cycle: An operating cycle consists of all steps carried out during a cleaning operation.

A.23 Passive Solvent Losses: The passive solvent losses are the emissions from spray gun cleaning equipment when the equipment sits idle between cleaning cycles and are a result of natural evaporation from the equipment.

A.24 Prep Station: Any spraying area that meets the requirements for a "Limited Spraying Area" pursuant to the Uniform Fire Code and that prevents the escape to the atmosphere of overspray particulate matter using properly maintained filters and mechanical ventilation.

A.25 Pretreatment Wash Primer: Any coating which contains a minimum of 0.5% acid by weight, is necessary to provide surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.

A.26 Primer: Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat.

A.27 Primer Sealer: Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, color uniformity, and to promote the ability of an undercoat to resist penetration by the topcoat.

A.28 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.

A.29 Reducer: Any volatile liquid used to reduce the viscosity of the coating. This liquid may be solvents, diluents or mixtures of both.

A.30 Specialty Coatings: Coatings that are necessary due to unusual and uncommon job performance requirements. These coatings include, but are not limited to, weld-thru primers, adhesion promoters, uniform finish blenders, elastomeric materials, gloss flatteners, bright metal trim repair, and antiglare/safety coatings.

A.31 Spray Booth: Any power ventilated structure of varying dimensions and construction provided to enclose or accommodate a spraying operation and which meets the Uniform Fire Code. A spray booth shall confine and limit, by dry or wet filtration, the escape to the atmosphere of overspray particulate matter.

A.32 Three-Stage Coating System: A topcoat system composed of a pigmented basecoat portion, a semi-transparent midcoat portion, and two transparent clearcoat portions. Three-stage coating systems' VOC content shall be calculated according to the following formula:

$$\text{VOC T3-stage} = \frac{\text{VOCbc} + \text{VOCmc} + (2 * \text{VOCcc})}{4}$$

Where:

VOC T3-stage = the average of the VOC content as applied in the basecoat (bc), midcoat (mc), and clearcoat (cc) system.

VOCbc = the VOC content as applied in the basecoat.

VOCmc = the VOC content as applied of any given midcoat.

VOCcc = the VOC content as applied of any given clearcoat.

A.33 Topcoat: Any coating applied over a primer or an original OEM finish for the purpose of protection or appearance.

A.34 Transfer Efficiency: The ratio of the weight of coating solids which adhere to the object being coated to the weight amount of coating solids used in the application process, expressed as a percentage.

A.35 Two-Stage Coating System: A topcoat consisting of a pigmented basecoat and a transparent clearcoat. Two-stage coating systems' VOC content shall be calculated according to the

following formula:

$$\text{VOC T2-stage} = \frac{\text{VOCbc} + (2 * \text{VOCcc})}{3}$$

Where:
VOC T2-stage = the average of the VOC content as applied in the basecoat (bc) and clearcoat (cc) system.

VOCbc = the VOC content as applied in the basecoat.

VOCcc = the VOC content as applied of any given clearcoat.

A.36 Undercoat: Any pretreatment wash primer, precoat, primer, primer surfacer, or primer sealer.

A.37 Utility Body: A special purpose 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.

A.38 Vehicle: A vehicle is any of the following: passenger cars, large/heavy duty truck cabs and chassis, light and medium duty trucks and vans, motorcycles, public transit buses, or military tanks or other tracked military vehicles.

A.39 Volatile Organic Compounds (VOC): As defined in District Rule 1.1.

A.40 Water-Based Temporary Transit Coating: Any water-based coating that is intended to protect new motor vehicle finishes from certain forms of damage such as iron dust, soot, acid rain, and other airborne pollutants during transit and is removed prior to sale of the vehicle.

A.41 Weld-Thru Primer: Any primer applied from an aerosol can, 16 ounces or less, to bare steel prior to welding that steel area. The purpose of the weld-thru primer is to inhibit corrosion in the weld area.

B. APPLICABILITY

B.1 General Application: The provisions of this rule apply to any person who supplies, sells, offers for sale, applies or specifies the use of coatings for vehicles, mobile equipment, and their parts or components.

B.2 Effective Date: The provisions of this rule shall become effective upon the date of adoption.

C. REQUIREMENTS

C.1 Coating VOC Content: After the date expressed below, no

person shall manufacture, solicit, require for use, specify, sell, or coat any vehicle, mobile equipment, or their parts or equipment, as defined in this Rule, using any coating with a Volatile Organic Compound (VOC) content in excess of the following limits, expressed as grams of VOC per liter of coating applied, excluding water and exempt organic compounds, except as provided herein pursuant to subsection C.4, "Add-on Control Equipment Option", or section D., "Exemptions":

Limits

Grams of VOC per Liter of Coating (lbs/gal), Less Water and Less Exempt Organic Compounds

Category	Effective July 1, 1999	
	Group I Vehicles & Color Match for Group II Vehicles	Group II Vehicles & no Color Match
Pretreatment Wash Primer	780 (6.5)	780 (6.5)
Primer/Primer Surfacer	340 (2.8)	340 (2.8)
Primer Sealer	420 (3.5)	340 (2.8)
Single-Stage/Multi-Stage Topcoats	600 (5.0)	420 (3.5)
Specialty Coating	840 (7.0)	840 (7.0)
Extreme Performance	--------	750 (6.2)
Camouflage	--------	420 (3.5)

C.2 Coatings Containing 1,1,1-Trichloroethane: No person shall apply any coating to any vehicle, mobile equipment, or their parts or components, if that coating contains 1,1,1-trichloroethane.

C.3 Extreme Performance Coating Petition: Any person seeking to apply an extreme performance coating as defined in this Rule to a vehicle, mobile equipment, or their parts or components shall comply with the following requirements:

a. A petition shall be submitted to the Air Pollution Control Officer (APCO) stating the performance requirements, volume of coating and VOC level that is attainable;

b. If the APCO grants written approval, then that approval shall be valid for one year. If applicable, such petition shall be resubmitted on an annual basis;

c. If the APCO grants written approval, such approval shall contain volume and VOC limit conditions.

C.4 Add-on Control Equipment Option:

a. A person may comply with the provisions of Subsection C.1, Coating VOC Content limits, by using air pollution control equipment provided that:

1. The combined control and capture efficiency shall

reduce VOC emissions from an emission device by at least 85 percent, by weight; and

2. The control system must be designed and operated for the maximum collection of fugitive emissions according to the U.S. EPA's "Guideline for Developing Capture Efficiency Protocols; and

3. Written approval in the form of an Authority to Construct and a Permit to Operate for such equipment is received from the APCO.

b. A person may comply with the provisions of subsection C.5, Transfer Efficiency, by using add-on control equipment, provided the combined control and capture efficiency of VOC is at least 92 percent, by weight.

C.5 Transfer Efficiency: No person shall apply any coating to any vehicle or mobile equipment or their parts and components unless one of the following methods is properly used:

a. Hand application methods;

b. Electrophoretic dip coating;

c. Electrostatic application;

d. High-Volume, Low-Pressure (HVLP) application;

e. Any other coating application method which has been demonstrated to be capable of achieving at least 65 percent transfer efficiency.

C.6 Compliance Statement Requirement: The manufacturer of coatings subject to this rule shall include a designation of the VOC content as supplied, including coating components, expressed in grams per liter or pounds per gallon, excluding water and exempt organic compounds, on labels or data sheets.

This designation shall include a statement of manufacturer's recommendation regarding thinning, reducing, or mixing with any other VOC containing materials. This statement shall include the VOC on an as-applied basis, excluding water and exempt organic compounds, based on the manufacturer's recommendations.

C.7 Surface Preparation and Clean-up Solvent: Any solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-containing materials used in surface preparation and clean-up operations shall be carried out pursuant to District Rule 3.14, Surface Preparation and Clean-up;

C.8 Storage and Disposal – General Requirements: All VOC-

containing materials, whether in its form for intended use or as a waste or used product, including items such as cloth or paper laden with VOC containing materials, shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times, except when filling or emptying, and disposed of in a manner to prevent evaporation of VOCs into the atmosphere at the facility.

C.9 Spray Booth and Prep Stations: Effective January 1, 1999, no person shall apply any coating to any complete (entire) vehicle unless that application is performed within a properly maintained and operated Spray Booth. All spraying of parts or components of a vehicle shall be done in a properly maintained and operated Prep Station or Spray Booth.

D. EXEMPTIONS

D.1 Coatings In A Non-aerosol Container: The Coating sales prohibition in subsection C.1, and transfer efficiencies in subsection C.5 shall not apply to the sale of any coating supplied in a non-aerosol container with a capacity of 16 fluid ounces or less, and shall not apply to any coating supplied in a hand-held, non-refillable aerosol container.

D.2 Approved VOC Add on Controls: The sales prohibition in subsection C.1 shall not apply to the sale of coatings where the emissions to the atmosphere from the application of those coatings are controlled by a District approved VOC add-on control device that meets the requirements of subsection C.4 of this Rule.

D.3 Coatings Shipped Outside The District: The sales prohibition in subsection C.1, shall not apply to any coating shipped outside of the District.

D.4 Logos, Letters Numbers, And Graphics: Any application of logos, letters, numbers and graphics to a painted surface, with or without a template, shall be exempt from this rule.

D.5 Residential Dwellings: Any coating operation of a vehicle by a resident of a one or two family dwelling shall be exempt from this rule provided:

a. The resident is the registered owner of the vehicle being coated;

b. The coating operation is not being conducted as a business;

c. The coating operation is limited to two vehicles per year;

d. The coating operation does not cause a public nuisance.

D.6 Shape and Size Exemption: With prior written approval of the APCO, and on a limited term basis, the requirements of subsection C.9, Spray Booths and Prep Stations, shall not apply to the coating of vehicles which, due to shape or size, cannot reasonably be contained in a spray booth.

D.7 Spray Booths and Prep Station Exemption: The requirements of subsection C.9, Spray Booths, and Prep Stations shall not apply to:

a. Any repair, touch-up, or spot priming operation which does not exceed a total of nine (9) square feet per vehicle. All such operations shall be conducted in a controlled area such that a public nuisance is not caused;

b. Any weld-thru primer;

c. Any application of coatings to owner operated agricultural equipment;

d. Any application of coatings to owner operated construction vehicles.

E. TEST METHODS

E.1 VOC Content: Coating VOC content shall be determined using EPA Method 24. The exempt organic compound content of coatings or solvents shall be determined using ASTM Method D4457-85. Compliance with the prohibition of sale shall be determined by measuring the VOC content of each and every component of a coating or coating system which has been reduced, using the manufacturer's recommended type and maximum amount of reducer.

E.2 Acid Content: The measurement of acid content of pretreatment wash primers shall be done in accordance with ASTM Method D 1613-85 (modified).

E.3 Metal And Silicon Content: The measurement of the metal and silicon content of metallic/iridescent coatings shall be determined by South Coast AQMD Method No. 318, "Determination of Weight Percent of Elemental Metal in Coatings by X-Ray Diffraction."

E.4 Collection Efficiency and Capture Efficiency: The collection and capture efficiency of organic emissions as specified in Section C.4, shall be measured as follows:

a. Capture efficiency shall be determined by the EPA Guidelines for Developing Capture Efficiency Protocols from the Federal Register Part 55 FR 26865, June 29, 1990;

b. Measurement of vapor flow through pipes shall be

determined by EPA Method 2A;

c. Measurement of organic vapor concentration shall be determined by EPA Method 25A. The calculation of control device efficiency shall be determined only during periods of continuous coating operations and shall be averaged over the duration of the coating operation not to exceed 24 hours.

E.5 Transfer Efficiency: Transfer Efficiency shall be determined using a method which shall be modeled after the test method described in the EPA document (EPA/600/2-88/-26b) "Development of Proposed Standard Test Method for Spray Painting Transfer Efficiency."

E.6 Active And Passive Solvent Losses: The active and passive solvent losses from spray gun cleaning systems shall be determined using South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems", dated October 3, 1989. The test solvent for this determination shall be any lacquer thinner with a minimum vapor pressure of 105-mm Hg at 20° C. The minimum test temperature shall be 15° C.

F. MONITORING AND RECORDKEEPING REQUIREMENTS

F.1 General Monitoring and Record-keeping Requirements: Any person subject to this rule shall:

a. Maintain and make available to District personnel, a current list of coatings (including specialty coatings) and solvents in use that provides all of the data necessary to evaluate compliance, including the following information, as applicable:

1. Coating, catalyst, additive, solvent, and reducer used;

2. Mix ratio of components used;

3. VOC content of coating as applied or solvent used in grams/liter or lbs./gal. (less water and less exempt organic compounds);

4. Material Safety Data Sheets (MSDS).

b. Maintain records that show, on a daily basis, the following information:

1. VOC content of the coating or solvent in grams/liter or lbs./gallon;

2. Quantity of each coating (including each specialty coating) applied and solvent used. This quantity need not include toners that are added for color

matching after preparation of the initial weighed color batch. If purchase records are used to determine the amount of solvents used, then records and manifests of the amounts of solvents disposed of or recycled must also be maintained;

3. Whether a color match was required;

4. Type of vehicle (I or II) or whether mobile equipment was coated.

F.2 Minimum Retention Time: All records shall be retained for a minimum of two years from the date of each entry and shall be made available to District personnel upon request.

Rule 3.20 WOOD PRODUCTS COATING OPERATIONS
(Adopted 12/05/2005, Amended 8/1/2011)

A. GENERAL

A.1 **PURPOSE:** To establish limits on the emission of volatile organic compounds (VOC) from coatings and strippers used on wood products.

A.2 **APPLICABILITY:** This rule applies to any person who uses, manufactures, blends, sells, repackages, distributes, or specifies the use of wood products coatings and/or strippers for use within the District.

A.3 **SEVERABILITY:** If a court of competent jurisdiction issues an order that any provision of this Rule is invalid, it is the intent of the District that other provisions of this Rule remain in full force and effect, to the extent allowed by law.

B. EXEMPTIONS

B.1 The provisions of this Rule shall not apply to the following:

a. This rule does not apply to sources using less than 55 gallons per year (singly or in any combination) of wood products coatings and/or strippers.

b. Wood products coatings that are sold in non-refillable aerosol-spray containers.

c. 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.

d. Coating of architectural components or structures not coated in a shop environment. Coating of architectural components or structures is subject to the provisions of Rule 3.15 Architectural Coatings.

e. Stencil coatings when used to comply with U.S. Military Specifications.

C. DEFINITIONS

C.1 **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.

C.2 **Air Assisted Airless Spray**: Equipment used to apply coatings that uses fluid air pressure to atomize coating and air pressure between 0.1 and 50 psig to adjust the spray pattern.

C.3 **Binders**: Non-volatile polymeric organic materials (resins) that form the surface film in coating applications.

C.4 **Capture Efficiency**: Expressed in percent, capture efficiency is the ratio of the weight of the VOC in the effluent stream entering a control device to the weight of the VOC emitted from wood product coating operations, both measured simultaneously, and can be calculated by the following equation:

$$\textbf{Capture Efficiency} = \frac{Wc}{We} X\ 100$$

Where: Wc = Weight of VOC entering the control device
We = Weight of VOC emitted

C.5 **Clear Topcoat**: A final coating that contains binders, but not opaque pigments, and is specially formulated to form a transparent or translucent solid protective film.

C.6 **Closed Container**: A container that has a cover where the cover meets with the main body of the container without any gaps between the cover and the main body of the container.

C.7 **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, conversion varnish, pigmented coatings, multicolored coatings, moldseal coatings, washcoats, and toners.

C.8 **Control Efficiency**: Expressed in percent, control efficiency is the ratio of the weight of the VOC removed by the control device from the effluent stream entering the control device to the weight of VOC in the effluent stream entering the control device, both measured simultaneously. Control efficiency is calculated by the following equation:

$$\textbf{Control Efficiency} = \frac{(Wc-Wa)}{Wc} X\ 100$$

Where: Wc = Weight of VOC entering the control device
Wa = Weight of VOC discharged from the control device

C.9 **Conversion Varnish:** A coating comprised of a homogeneous (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. Any conversion varnish used as a self sealing system shall be classified as a conversion varnish rather than a sealer.

C.10 **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.

C.11 **Electrostatic Application:** The electrical charging of atomized coating droplets for deposition by electrostatic attraction.

C.12 **Exempt Compound:** As defined in District Rule 1.1, Definitions.

C.13 **Filler:** A preparation used to fill in cracks, grains, etc. of wood before applying a coating.

C.14 **Flow Coat:** A coating of which is applied by flowing a stream of coating over an object and allowing any excess coating material to drain off.

C.15 **High-Solid Stain:** Stains containing more than 454 grams (1 pound) of solids per 3.785 liters (1 gallon), by weight and can include wiping stains, glazes, and opaque stains.

C.16 **High-Volume, Low-Pressure (HVLP):** 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 pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns.

C.17 **Ink:** A fluid that contains dyes and/or colorants and is used to make markings but not to protect surfaces.

C.18 **Low-Solids Stains:** Stains that contain 454 grams (1 pound) or less of solids per 3.785 liters (1 gallon) or less by weight.

C.19 **Low-Volume, Low-Pressure (LVLP) Equipment:** Spray coating application equipment with air pressure between 0.1 and 10.0 psig and air volume less than 15.5 cubic feet per minute (cfm) per spray gun and which operates at a maximum fluid delivery pressure of 50 psig.

C.20 **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.

C.21 **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.

C.22 **New Wood Product:** A wood product which has not been previously coated. A wood product from which uncured coatings have been removed to repair flaws in initial coatings applications is a new wood product.

C.23 **Pigmented Coatings:** Opaque coatings that contain binders and colored pigments that are formulated to hide the wood surface either as an undercoat or topcoat.

C.24 **Reactive Diluents:** A liquid component of a coating that is a VOC during application, and one in which through chemical or physical reactions, such as polymerization, becomes an integral part of a finished coating.

C.25 **Refinishing Operation:** The steps necessary to remove cured coatings and to repair, preserve, or restore a wood product.

C.26 **Repair Coating:** A coating used to recoat portions of a product which has sustained mechanical damage to the coating following normal coating operations.

C.27 **Roll Coater:** A series of mechanical rollers that form a thin coating film on the surface of the roller which is applied to a substrate by moving the substrate underneath the roller.

C.28 **Sealer:** A coating containing binders which seals the wood prior to application of subsequent coatings.

C.29 **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.

C.30 **Stripper:** A liquid used to remove cured coatings, cured inks, and/or cured adhesives.

C.31 **Surface Preparation and Clean-up:** The removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants such as dust, soil, oil, grease, etc., at any step in the production, repair, maintenance, or servicing of parts,

products, tools, machinery, equipment, or general work areas and including the storage and disposal of VOC containing materials.

C.32 **Toner:** A wash coat which contains binders and dyes or pigments to add tint to a coated surface.

C.33 **Touch-up Coating:** A coating used to cover minor coating imperfections appearing after the main coating operation.

C.34 **Volatile Organic Compound (VOC):** As defined in District Rule 1.1.

C.35 **Volatile Organic Compound Composite Partial Vapor Pressure:** The sum of the partial pressures of compounds defined as VOC.

C.36 **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 sealers.

C.37 **Wood Panel:** Any piece of wood or wood composition which is solid or laminated, and which is larger than 10 square feet in size, and which is not subsequently cut into smaller pieces.

C.38 **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.

C.39 **Wood Product Coating Application Operations:** A combination of coating application steps of 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.

D. REQUIREMENTS

D.1 **Application Equipment Requirements:** A person subject to the provisions of this rule shall not apply any wood products coating to any wood products, unless one of the following application methods is used:

a. Electrostatic application equipment;
b. High Volume Low Pressure spray equipment;
c. Low-Volume, Low-Pressure spray equipment;

d. Air assisted airless, for touch-up and repair only;
e. Hand application methods, such as brushes or rollers;
f. Dip coat;
g. Flow coat;
h. Roll coat;
i. Vacuum coat;
j. Any other equivalent method, which has been approved in writing by the Air Pollution Control Officer (APCO) and the U.S. Environmental Protection Agency (EPA).

D.2 **VOC Content of Coatings for New Wood Products**: Except as provided in Sections D.5 and D.6 of this rule, no person shall apply any coating to a new wood product which has a volatile organic compound (VOC) content exceeding the applicable limits specified below:

Coating Category	VOC limits Less water and exempt compounds	
	Grams per liter	lb-VOC/lb-solid
Clear Topcoats	275	0.35
Conversion	550	1.20
Filler	275	0.18
High-Solid Stain	350	0.42
Inks	500	0.96
Mold-Seal Coating	750	4.20
Multi-Colored Coating	275	0.33
Pigmented Coating	275	0.25
Sealer	275	0.36

Coating Category	VOC limits	
	Grams per liter	lbs./gal.
Low-Solid Stains, Toners, Wash coats	120	1.00

a. Notwithstanding the VOC limits specified in this section, a person may apply a sealer with a VOC content not exceeding 680 grams/liter, provided that the topcoat used on the same wood product does not exceed 275 grams/liter.

b. If emission averaging is not used to achieve compliance with this section, VOC limits expressed in grams per liter shall be used.

c. If emission averaging is used to achieve compliance with this section, VOC limits expressed in pounds of VOC per pound of solids shall be used.

D.3 **VOC Content of Coatings for Refinishing, Repairing, Preserving, or Restoring Wood Products:** Except as provided in Sections D.5 and D.6 of this rule, no person shall apply any coating to refinish, repair, preserve, or restore a wood product which has volatile organic compound (VOC) content exceeding the applicable limits specified below:

Coating Category	VOC limits Less water and exempt compounds	
	Grams per liter	lb-VOC/lb-solid
Clear Topcoats	680	2.50
Conversion	550	1.20
Filler	500	0.96
High-Solid Stain	700	2.57
Inks	500	0.96
Mold-Seal Coating	750	4.20
Multi-Colored Coating	680	2.60
Pigmented Coating	600	1.60
Sealer	680	2.50

Coating Category	VOC limits	
	Grams per liter	lbs./gal.
Low-Solid Stains, Toners, Wash coats	480	4.00

a. If emission averaging is not used to achieve compliance with this section, VOC limits expressed in grams per liter shall be used.

b. If emission averaging is used to achieve compliance with this section, VOC expressed in pounds of VOC per pound of solids shall be used.

D.4 **VOC Content For Strippers:** A person shall not use a stripper on wood products unless:

a. It contains less than 350 grams of VOC per liter of material; or

b. The VOC composite partial vapor pressure is 2 mm Hg (0.04 psig) or less at 20°C (68°F), as calculated pursuant to Section G.9 of this rule.

D.5 **Emission Control Equipment:** As an alternative, a person may comply with the VOC limits specified in Sections D.2, D.3, and D.4. of this rule by using an approved air pollution control system consisting of all the following:

a. A capture and control device which reduces VOC emissions from the application of wood products coatings or strippers by an equivalent or greater amount than the limits specified in Sections D.2, D.3, and D.4 of this rule, with written approval of the Air Pollution Control Officer (APCO). The minimum required overall capture and control efficiency of an emission system at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by the following equation:

$$C.E. = 1 - \frac{VOC_{LWc}}{VOC_{LWnMax}} X \frac{1 - \frac{VOC_{WnMax}}{D_{nMax}}}{1 - \frac{VOC_{LWc}}{D_c}} X\ 100$$

Where: C.E.= Overall Control Efficiency, percent.

VOC_{LWc} = VOC Limit of Rule 3.20, less water and less exempt compounds, pursuant to Sections D.2, D.3, and/or D.4

$VOC_{LWn,Max}$ = Maximum VOC content of non-compliant coating used in conjunction with a control device, less water and less exempt compounds.

$D_{n,Max}$ = Density of solvent, reducer, or thinner contained in the non-compliant coating, containing the maximum VOC content of the multi-component coating.

D_c = Density of corresponding solvent, reducer, or thinner used in the compliant coating system = 880 g/L

b. The capture system shall vent all drying oven exhaust to the control device and shall have one or more inlets for collection of fugitive emissions;

c. During any period of operation of a thermal incinerator, combustion temperature shall be continuously monitored;

d. During any period of operation of a catalytic incinerator, exhaust gas temperature shall be continuously monitored;

e. Written approval for the use of such equipment is obtained from the Air Pollution Control Officer (APCO) prior to installation or use of the equipment.

D.6 **Emissions Averaging Provisions:** A person may comply with the provisions of Sections D.2, D.3, and D.4 of this rule by using an averaging approach for all or a portion of the coatings used

at the facility, provided that all the following requirements of are met:

a. A person shall demonstrate that the emissions from the coatings being averaged, on a pounds of VOC per pounds of solids basis on a rolling 30-day basis, are less than or equal to the allowable emissions, based on the following:

$$\sum_{i=1}^{n} VOC_i(U_i) \geq \sum_{i=1}^{n} ER_i(U_i)$$

Where: VOC_i = VOC content limit of coating "i" (grams of VOC per liter of material for low solids coatings and pounds of VOC per pound of solids for all other coatings, as required in Sections D.2, D.3, or D.4 of this rule.)

U_i = Usage of coating "i" (liters of material for low solids coatings, and pounds of solids for all other coatings), and

ER_i = Actual VOC content of coating "i", as applied (grams per liter for low solids materials and pounds of VOC per pounds of solids for all other coatings).

b. Any wood product coating not included in emissions averaging shall comply with the VOC limits in Sections D.2, D.3, or D.4 of this rule.

D.7 **Requirements for Surface Preparation and Clean-up Materials:** Any solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-containing materials used in surface preparation and clean-up operations shall be carried out pursuant to District Rule 3.14, Surface Preparation and Clean-up.

D.8 **Storage and Disposal – General Requirements:** All VOC-containing materials, whether in its form for intended use or as a waste or used product, including items such as cloth or paper laden with VOC containing materials, shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times, except when filling or emptying, and disposed of in a manner to prevent evaporation of VOCs into the atmosphere at the facility.

E. ADMINISTRATIVE REQUIREMENTS

E.1 **Labeling Requirements - VOC content:** Each container of any coating or stripper manufactured after date of adoption shall display its maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer, or shall have this information provided in a product data sheet supplied with the container. VOC content shall be displayed as grams of VOC per liter of coating (less water and less exempt solvent, and excluding any colorant added to tint bases) or stripper. VOC content displayed may be calculated using product formulation data, or may be determined using the test method in Section G of this rule. Alternatively, containers for strippers subject to the provisions of Section D.4 of this rule may display only the partial vapor pressure.

E.2 **Operation and Maintenance Plan ("O&M Plan"):** Any person using an approved emission control device pursuant to Section D.5 as a means of complying with this rule must submit an O&M Plan for the emission control device to the Air Pollution Control Officer for approval. Each O&M Plan shall specify operation and maintenance that will demonstrate continuous operation of the emission control device during periods of emissions-producing operations. Each O&M Plan shall also specify which records must be kept to document these operations and maintenance procedures. An O&M Plan shall be implemented upon approval of the Air Pollution Control Officer.

E.3 **Emissions Averaging Plan ("EA Plan"):** A person wanting to use emissions averaging to achieve compliance with this rule pursuant to D.6 shall submit an Emissions Averaging Plan for approval by the Air Pollution Control Officer. The EA Plan may not be implemented until approved in writing, by the Air Pollution Control Officer. Submittal of an EA Plan does not provide an exemption from the requirements of this rule. If the EA Plan is not approved, emissions averaging will not be permitted. The EA Plan shall include, at a minimum:

a. A description of the wood product coatings to be included in the averaging program; and

b. A description of the quantification and recordkeeping for coating usage, coating VOC and solids content, VOC emissions, and calculations to show compliance with Section D.6 of this rule.

F. MONITORING AND RECORDS:

F.1 **Usage Records:** Any person subject to this Rule shall maintain the following records in order to evaluate compliance:

a. A data sheet, material list, or invoice giving material name, manufacturer identification, material application, and VOC content;

b. Any catalysts, reducers, or other components used and the mix ratio; and the applicable VOC limit from Section D.2. or D.3. and the actual VOC content of the wood product coating as applied;

c. For persons using coatings or materials that comply with the VOC limits specified in Sections D.2, D.3, and D.4 of this rule, records shall be maintained on a monthly basis showing the type and volume of coatings and strippers used. Coating type shall be designated according to the coating categories as listed in Sections D.2, D.3, and D.4;

d. For persons using a collection and control system pursuant to Section D.5 of this rule, records shall be maintained on a daily basis showing the type and volume of coatings and solvents used. Key system operating and maintenance procedures of the control system shall also be maintained on a daily basis. Key system operating parameters are those necessary to ensure compliance with the requirements of Section D.5 of this rule.

e. For coatings used in emissions averaging pursuant to Section D.6 of this rule, daily records shall be maintained showing the type and volume of coatings and strippers used;

F.2 **Duration of Records:** All records required by this rule shall be maintained for at least three (3) years, and shall be made available to the Air Pollution Control Officer upon request.

G. TEST METHODS AND CALCULATIONS

G.1 **General:** For the purposes of this Rule, the following test methods or calculation methods shall be used. Other test methods determined to be equivalent and approved in writing by the District and the EPA 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 or calculations shall constitute a violation of this Rule.

G.2 **Determination of VOC Content:** VOC content of wood products coatings, strippers, and surface preparation and clean-up materials subject to this rule shall be determined in accordance with EPA Method 24 and Section G.10 or G.11 of this rule, as applicable.

G.3 **Determination of Composition of VOC:** The composition of VOC shall be as specified on the manufacturer's label or data sheet, or as determined by ASTM Method E-260, General Gas Chromatograph.

G.4 **Determination of Compounds Exempt from VOC Definition:** Exempt compounds shall be determined in accordance with South Coast Air Quality Management District Method 303. If any of the perfluorocarbons or volatile cyclic and linear methyl siloxanes 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.

G.5 **Determination of Capture Efficiency:** Efficiency of the collection system shall be determined in accordance with EPA "Guidelines for Determining Capture Efficiency, January 9, 1995". Individual collection efficiency test runs subject to the U.S. EPA technical guidelines shall be determined by one of the following:

a. Applicable U.S. EPA Methods 204, 204A, 204B, 204C, 204E, and/or, 204F; or

b. The South Coast Air Quality Management District "Protocol for Determination of Volatile Organic Compound (VOC) Capture Efficiency"; or

c. Any other method approved by the U.S. EPA, the California Air Resources Board, and the Air Pollution Control Officer.

G.6 **Determination of Control Efficiency:** Efficiency of control equipment shall be determined in accordance with EPA Method 18, 25, 25A, EPA Method 2 or 2C (whichever is applicable).

G.7 **Vapor Pressure:** Vapor pressures may be obtained from standard reference texts or may be determined by ASTM D-2879.

G.8 **Volatile Content of Radiation Curable Materials:** Volatile content of radiation curable materials shall be obtained in accordance with ASTM Method D-5403-93.

G.9 **Calculation for Determining Volatile Organic Compound Composite Partial Vapor Pressure:** VOC composite partial vapor pressure for determination of compliance with Section D.4. of this rule shall be calculated by the following equation:

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

Where: PP_c = VOC composite partial presser at 20°C, in mmHg.
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/gmole).
MW_w = Molecular weight of water, in (g/gmole).
MW_e = Molecular weight of exempt compound, in (g/gmole).
VP_i = Vapor Pressure of the "i"$_{th}$ VOC compound at 20°C, in mmHg.

G.10 **Calculation For Determining Weight of VOC Per Volume of Coating, Less Water and Less Exempt Compounds:** The weight of VOC per combined volume of VOC and coating solids, shall be calculated by the following equation:

$$G1 = \frac{Wv - Ww - Wec}{Vm - Vw - Vec}$$

Where: 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.

G.11 **Calculation for Determination of VOC Content 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 the 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:

$$\text{VOC Content per Volume of Material} = \frac{(Wv - Ww - Wec)}{Vm}$$

Where: W_v = Weight of all Volatile Compounds.
W_w = Weight of water.
W_{ec} = Weight of compounds listed as exempt from the definition of VOC as provided for in the definition of Exempt Compounds in this Rule.
V_m = Volume of material.

G.12 **Calculation for Determination of Pounds of VOC per Pound of Solids:** Pounds of VOC per pound of solids is the weight of VOC per weight of coating solids within any given volume of coating, and can be calculated by the following equation:

$$\text{Pounds of VOC per Pound of Solids} = \frac{(Ws - Ww - Wec)}{Wr}$$

Where: W_s = Weight of all Volatile Compounds, in pounds.
W_w = Weight of water, in pounds.
W_{ec} = Weight exempt compounds, in pounds.
W_r = Weight of coating solids, in pounds.

G.13 **Calculation for Coatings That Contain Reactive Diluents:** For coatings that contain reactive diluents, the VOC content of the coating is determined after curing. The pounds of VOC per pound of coating solids shall be calculated by the test method found in Section G and the following equation:

$$\text{Pounds of VOC per Pound of Solids} = \frac{(Ws - Ww - Wec)}{Wr}$$

Where: W_s = Weight of Volatile Compounds, in pounds emitted into the atmosphere during curing.
W_w = Weight of water, in pounds emitted into the atmosphere during curing.
W_{ec} = Weight exempt compounds, in pounds emitted into the atmosphere during curing.
W_r = Weight of coating solids, in pounds prior to reaction.

Rule 3.21 INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS (Adopted: 6/05/2006)

A. APPLICABILITY

This rule applies to boilers, steam generators, and process heaters having the heat input capacities greater than or equal to 1 million BTU per hour (MMBTU/hr), used in all industrial, institutional, and commercial operations.

B. EXEMPTIONS

B.1 The requirements of Section D of this Rule shall not apply to the units with a rated heat input greater than or equal to 1 MMBtu/hr but less than 5 MMBtu/hr which are willing to accept permit conditions that restricts operation to less than 90,000 therms of annual heat inputs.

a. To continue to qualify for the exemption provided in Section B.1, the owner or operator of any applicable unit(s) shall submit to the Air Pollution Control Officer (APCO) annual fuel use data and/or annual hours of operation that will demonstrate the unit(s) to have an annual heat inputs of less than 90,000 therms.

b. Following the adoption of this rule, an exemption granted for any unit will become null and void, and in violation of this rule if the unit have an annual heat inputs more than or equal to 90,000 therms.

C. DEFINITIONS

C.1 Annual Heat Input: The total heat input of fuels burned by a unit in a calendar, as determined from the fuel's HHV and cumulative annual usage of each fuel or cumulative hours of operation.

C.2 Boiler or Steam Generator: An individual piece of combustion equipment fired with liquid, gaseous, or solid fuel with the primary purpose of producing steam. Boiler or steam generator does not include any unit that is used exclusively to produce electricity for sale, any waste heat recovery boiler that is used to recover sensible heat from exhaust of combustion or a combustion turbine, nor does it include equipment associated with a chemical recovery cycle.

C.3 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.

C.4 Commercial/Institutional Boiler: A boiler used to provide steam and/or hot water which is used in

commercial or institutional establishments including but not limited to hospitals, research centers, educational facilities, hotels, dormitories, or laundries.

C.5 Gaseous Fuel: Any fuel which is a gas at standard conditions.

C.6 Gas-Fired: Using natural gas, propane, or any other gaseous fuel for firing the boiler or steam generator.

C.7 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.

C.8 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.

C.9 Industrial Boilers: A boiler used in manufacturing, processing, mining, refining and any other industries, where it provides steam, and/or hot water.

C.10 Modification: Any physical change or operational change to an exiting emission unit, including a change in hours of operation or production rate which would necessitate a change in permit conditions. (Also defined in Rule 10.1)

C.11 North FRAQMD: The area of the Feather River Air Quality Management District which is north of a line connecting the northern border of Yolo County to the Southwestern tip of Yuba County, and continuing along the Southern Yuba County border to Placer County. (Also defined in Rule 10.1)

C.12 NOx Emissions: The sum of nitric oxides (NO) and nitrogen dioxide (NO_2) in the flue gas.

C.13 Nongaseous Fuel: Any fuel which is not a gas at standard conditions.

C.14 Parts Per Million by volume (ppmv): The ratio of the number of gas molecules of a given species, or group of species, to the number of millions of total gas molecules.

C.15 Process Heater: Any combustion equipment fired with any fuel, and which transfers heat from combustion gases to heat 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, and smelters.

C.16 Rated Heat Input Capacity: The heat input capacity, in million BTU per hour (MMBTU/hr), 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.

C.17 Sacramento Federal Non-attainment Area (SFNA)for Ozone: The area defined in 40CFR Section 81.305 for the Sacramento Metro Area. (Also defined in Rule 10.1)

C.18 Standard Conditions: 68^{o}F and one atmosphere.

C.19 Therm: One hundred thousand (100,000) BTU.

C.20 Unit: Any boiler, steam generator or process heater as defined in Sections C.2 and C.15 of this rule.

D. REQUIREMENTS

D.1 No later than one (1) year following District adoption of this Rule, the owner or operator of any unit(s) under his/her control with a rated heat input capacity less than 5 MMBTU/hr but greater than or equal to 1 MMBTU/hr and an annual heat input greater than or equal to 90,000 therms shall submit an application and a list of all operating units to the District. The owner or operator of the unit also shall select one of the following four options to be added as a permit condition to the Permit to Operate for each unit, in order to achieve compliance with this Rule. All new or modified units shall also comply with the requirements of District Rule 10.1, New Source Review. The options are:

a. Operate in a manner that maintains stack gas oxygen concentrations at less than or equal to 3% by volume on dry basis for at a minimum of fifteen (15) consecutive minute averaging period. The averages shall be calculated from no less than five data set, recorded from a samplings on interval of no greater than three minutes; or

b. Operate with a stack gas oxygen trim system set at 3% by volume oxygen. The operational tolerance of the setting shall be within the range of 2.85% to 3.15%; or

c. Tune the unit at least once per year by a qualified technician to perform a tune-up in accordance with the procedure described in Attachment 1. The owner/operator of any unit(s) is required to submit an annual report verifying that the tune-up has been performed with satisfactory results in accordance to procedures

described in Attachment 1. The report shall contain any other information or documentation that the APCO determines to be necessary; or

d. Operate in compliance with the emission limits specified in Table 1 of this Rule.

D.2 No later than one (1) year following District adoption of this Rule, all units with a rated heat input capacity greater than or equal to 5 MMBTU/hr and an annual heat inputs less than 90,000 therms shall select one of the following four options in sections D.1.a-D.1.d to be added as a permit condition to the Permit to Operate for each unit, in order to achieve compliance with this Rule. All new or modified units shall also comply with the requirements of District Rule 10.1, New Source Review.

D.3 No later than one (1) year following District adoption of this Rule, all units with a rated heat input capacity greater than or equal to 5 MMBTU/hr and annual heat inputs greater than or equal to 90,000 therms shall demonstrate compliance with the following emission limits dependent upon the area of non-attainment and specific fuel fired in the unit as shown in Table 1. All new or modified units shall meet the emission limits shown in Table 1 and comply with the requirements of District Rule 10.1, New Source Review.

Table 1. EMISSION LIMITATIONS FOR NOx

	Type of Fuel Used		
	Only Gaseous Fuel Firing Units	**Gaseous & Non-Gaseous Fuel Co-Firing Units**	**Non-Gaseous Firing Units**
North Portion of FRAQMD Emission Limits	0.08 lbs/MMBTU or 70 ppmv @ 3% O_2	*Heat Input Weighted Average Fuel Limits	0.15 lbs/MMBTU or 115 ppmv @ 3% O_2
SFNA Portion of FRAQMD Emission Limits	0.036 lbs/MMBTU or 30 ppmv @ 3% O_2	*Heat Input Weighted Average Fuel Limits	0.052 lbs/MMBTU or 40 ppmv @ 3% O_2

*The weighted average shall be calculated as follows:

$$\text{Emission} = \frac{(x * X) + (y * Y)}{(X + Y)}$$

Where x = emission limit for gaseous fuel
y = emission limit for non-gaseous fuel
X = heat input of the gaseous fuel

Y = heat input of the non-gaseous fuel.

D.3 Emissions from units subject to D.2 shall not exceed a carbon monoxide (CO) concentration of 400 ppm corrected to 3% oxygen ($O_{2)}$ by volume when using only a gaseous or a combination of gaseous and liquid fuels. Solid fuel-fired units shall not exceed CO limits expressed in the Permit to Operate.

D.4 No person shall allow the discharge of ammonia (NH3)emissions in excess of 20 ppmv at dry stack conditions adjusted to 3% oxygen into the atmosphere from any emission control devices.

E. EQUIPMENT REQUIREMENT

E.1 Any persons subject to the provisions of Section B and Section D of this Rule shall install one of the following no later than one (1) year following District adoption of this Rule:

a. A totalizing fuel meter. Fuel meters shall be installed to cumulatively record the total fuel used. Fuel meters shall be accurate to ±1% as certified in writing by the manufacturer and the fuel consumption for each unit shall be compiled monthly into a rolling twelve calendar month report , or;

b. A non-resettable hour meter. Hour meter shall be installed with 9,999 non-resettable display capacity and the hours of operation shall be compiled monthly into a rolling twelve calendar month.

A meter shall be installed for each applicable unit that fires gaseous and/or liquid fuel and shall be used to demonstrate compliance of the Permit to Operate, validate the exemption, and/or track annual emissions.

E.2 Any person who operates a unit rated less 5 MMBtu/hr but greater than or equal to 1 MMBtu/hr or a unit rated at or greater than 5 MMBtu/hr with annual heat inputs of less than 90,000 therms who selects the option D.1.b shall install an Oxygen Trim System. The Oxygen Trim System shall be set accordingly to the requirements in section D.1.b and all related conditions on the Permit to Operate.

F. COMPLIANCE DETERMINATION

F.1 Initial Compliance: All existing, modified, or new units subject to meet requirements of Table 1 or section D.1.a of this rule shall demonstrate initial compliance. Initial compliance can be achieved by conducting a source test on a unit. All units shall be tested using the appropriate test method specified in Section G.

F.2 Compliance Demonstration: All owners or operators of any unit subject to meet the emission limits listed in Table 1 or section D.1.a shall demonstrate compliance once every 8,760 hours of operation, or once every two calendar years; whichever occurs more frequently. All units shall be tested using the appropriate test method specified in Section G.

F.3 Emission Determination: All emission determinations shall be made in the as-found operating conditions, except that emission determinations shall include, at a minimum, one source test conducted at the maximum firing rate allowed by the District permit, and no compliance determination shall be established within two (2) hours after a continuous period in which fuel flow to the unit is zero, or shut off for thirty (30) minutes or longer.

F.4 Emission Concentration: All ppmv emission limits specified in Table 1 of this Rule are referenced at dry stack-gas conditions and corrected to 3% by volume stack gas oxygen. Emission concentrations shall be corrected to 3% oxygen (O2) as follows:

$$[\text{ppm}]\ \text{corrected} = \frac{20.95\% - 3.00\%}{20.95\% - [\%O2]\ \text{measured}} * [\text{ppm}]\ \text{measured}$$

F.5 Emission Averaging: All emission concentrations and emission rates shall be based on 15-consecutive-minute averaging periods. The averages shall be calculated from no less than five data sets, recorded from samplings on intervals of no greater than three minutes.

F.6 Continuous Emission Monitoring: All units using continuous emission monitoring system to obtain data such as emission concentrations and emission rates shall utilize the test methods specified in Section G, Test Methods.

G. TEST METHODS

G.1 Compliance with the emission requirements in Table 1 shall be determined using the following test methods:

a. Oxides of Nitrogen – EPA Method 7E or CARB Method 100
b. Carbon Monoxide – EPA Method 10 or CARB Method 100
c. Stack Gas Oxygen – EPA Method 3A or CARB Method 100
d. NOx Emission Rate (Heat Input Basis) – EPA Method 19
e. If certification of the higher heating value of the fuel is not provided by a third party fuel supplier, it shall be determined by EPA Method 19.

G.2 For determination of the NH3 concentrations in stack gases, Bay Area Air Quality Management District Source Test Procedure ST-1B, “Ammonia, Integrated Sampling” shall be utilized for stack sampling and EPA Method 350.3, “Ion Specific Electrode”, shall be utilized as the analysis method. (Reference EPA 600/4-79-020.)

H. RECORDKEEPING REQUIREMENTS

H.1 To assure compliance with this rule, the facility shall maintain records for a period of three (3) years and shall be made available for inspection by any authorized personnel upon request. The facility shall maintain the following information:

a. The monthly hours of operation or quantity of fuel consumed for each unit, and;
b. At the end of each calendar year, the facility shall compile a month-to-month report of the unit’s total operation i.e. fuel usage or hours of operation, and;
c. A maintenance or testing log which includes but not limited to tune-up verification and source test results to verify compliance.

H.2 The APCO may include additional recordkeeping requirements to assure compliance of this rule for each unit.

H.3 Any person subject to the provisions of Section D.3 and D.4 who fires solid fuel in an applicable unit shall provide a means of calculating or verifying fuel input to the unit in lbs/hr that is acceptable to the APCO for purposes of documenting compliance with the specified emission limits.

ATTACHMENT 1

Tuning Procedure

General: Nothing in the tuning procedures** shall be construed to require any act or omission that would result in unsafe conditions or would be in violation of any regulation or requirement established by Factory Mutual, Industrial Risk Insurers, National Fire Prevention Association, the California Department of Industrial Relations (Occupational Safety and Health Division), the Federal Occupational Safety and Health Administration, or other relevant regulations and requirements.

** This tuning procedure is based on a tune-up procedure developed by KVB, Ind. for the EPA.

A. Procedures for tuning mechanical draft boilers, steam generators, and process heaters:

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 A.1, record stack-gas temperatures, oxygen concentration, and CO concentration (for gaseous fuels) or smoke-spot number(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 end of the range of typical minimum values, 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.

   a) The smoke-spot number can be determined with ASTM test method D-2156 or with the Bacharach method. This Bacharach method is included in a tune-up kit that can be purchased from the Bacharach Company.

   b) Typical minimum oxygen levels for units at high firing rates are:

      1) For natural gas: 0.5 - 3%
      2) For liquid fuels: 2 - 4%

3) Increase combustion air flow until the stack-gas oxygen levels increase by one or two percent over the level measured in Section A.2. As in Section A.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 A.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.

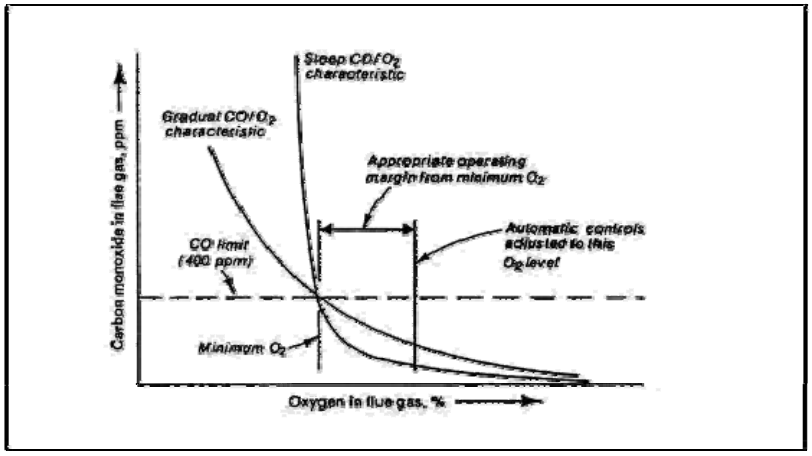


Figure 1 Oxygen/CO Characteristic Curve
(Source: KVB Inc.)

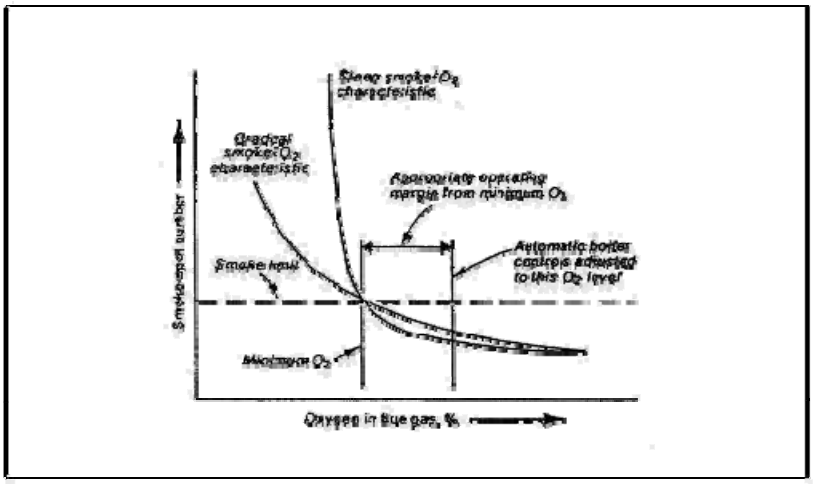


Figure 2 Oxygen/Smoke Characteristic Curve
(Source: AVS Inc.)

7) From the curves prepared in Section A.6, find the stack-gas oxygen levels where the CO emissions or smoke-spot number equal the following values:

Fuel	**Measurement**	**Value**
Gaseous	CO Emissions	400 PPM
#1 & #2 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 A.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 non-repeatability or play in automatic controls

9) If the load of the combustion unit varies significantly during normal operation, repeat Sections A.1-A.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 that rate.

10) Verify that the new settings can accommodate the sudden load changes that may occur in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack. If any of the conditions in Section A.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.

B. Procedures for tuning natural and induced draft boilers, steam generators, and process heaters.

1) Preliminary Analysis

a) Check the Operating Pressure or Temperature. Operate the boiler, steam generator, or process heater at the lowest acceptable pressure or temperature that will satisfy the load demand. This will minimize heat and radiation losses. Determine the pressure or temperature that will be used as a basis for comparative combustion analysis before and after tune-up.

b) Check Operating Hours. Plan the workload so that the boiler, steam generator, or process heater operates only the minimum hours and days necessary to perform the work required. Fewer operating hours will reduce fuel use and emissions.

c) Check Air Supply. Sufficient fresh air supply is essential to ensure optimum combustion and the area of air supply openings must be in compliance with applicable codes and regulations. Air openings must be kept wide open when the burner is firing and clear from restriction to flow.

d) Check Vent. Proper venting is essential to assure efficient combustion. Insufficient draft or overdraft promotes hazards and inefficient burning. Check to be sure that vent is in good condition, sized properly and with no obstructions.

e) Check Thermal Insulation. Check condition of, or absence of, appropriate insulation on all steam, hot water or process pipes, return tank, heat exchangers, storage tanks, etc. Lack of adequate thermal insulation will significantly increase fuel usage.

f) Combustion Analysis. Perform an "as is" flue gas analysis (O2, CO, CO2, etc.) with a warmed up boiler steam generator, or heater at high and low fire. In addition to data obtained from combustion analysis, also record the following:

1) Inlet fuel pressure at burner (at high and low fire)
2) Draft above draft hood or barometric damper
   a. Draft hood: high, medium, and low
   b. Barometric damper: high, medium, and low
   c. Steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the boiler, steam generator, or process heater.
   d. Unit rate if meter is available.

With above conditions recorded, make the following checks and corrective actions as necessary:

2) Checks and Corrections:

a) Check Burner Condition. Dirty burners or burner orifices will cause boiler, steam generator, or process heater output rate and thermal efficiency to decrease. Clean burners and burner orifices thoroughly. Also, ensure that fuel filters and moisture traps are in place, clean, and operating properly, to prevent plugging of gas orifices. Confirm proper location and orientation of burner diffuser spuds, gas canes, etc. Look for any burned-off or missing burner parts, and replace as needed.

b) Check for Clean Boiler, Steam Generator, or Process Heater Tubes and Heat transfer Surfaces. External and internal build-up of sediment and scale of the heating surfaces creates an insulating effect that quickly reduces unit efficiency. Excessive fuel cost will result if units are not kept clean. Clean tube surfaces, remove scale and soot, and assure proper fluid and flue gas flow,

c) Check Water Treatment & Blowdown Program. Soft water and the proper water or process fluid treatment must be uniformly used to minimize scale and corrosion. Timely flushing and periodic blowdown must be employed to eliminate sediment and scale build-up on a boiler, steam generator, or process heater.

d) Check for Steam Hot Water or Process Fluid Leaks. Repair all leaks immediately since even small high pressure leaks quickly lead to considerable fuel, water and steam losses. Be sure there are no leaks through the blow-off drains, safety valve, by-pass lines or at the feed pump, if used.

3) Safety Checks

a) Test primary and secondary low water level controls.

b) Check operating and limit pressure and temperature controls.

c) Check safety valve pressure and capacity to meet boiler, steam generator, or process heater requirements.

d) Check limit safety control and spill switch.

e) Check pilot safety shut-off operation.

4) Adjustments. While taking combustion readings with a warmed up boiler, steam generator, or process heater at high fire, perform checks and adjustments as follows:

a) Adjust unit to fire at rated capacity, record fuel manifold pressure.

b) Adjust draft and/or fuel pressure to obtain acceptable, clean combustion at high, medium and low fire. Carbon monoxide value should always be below 400 ppm at 3% O2. If CO is high, make necessary adjustments. Check to ensure boiler, steam generator, or process heater light offs are smooth and safe. A reduced fuel pressure test at both high and low fire should be conducted in accordance with the manufacturer’s instructions and maintenance manuals.

c) Check and adjust operation of modulation controller. Ensure proper, efficient, and clean combustion through the range of firing rates. When above adjustments and corrections have been made, record all data.

5) Final Test Perform a final combustion analysis with a warmed up boiler, steam generator, or process heater at high, medium, and low fire. In addition to data from combustion analysis, also check and record:

a) Fuel pressure at burner (High, Medium, and Low).

b) Draft above draft hood or barometric damper (High, Medium, and Low).

c) Steam pressure or water temperature entering and leaving boiler, steam generator, or process heater.

d) Unit rate if meter is available.

When the above checks and adjustments have been made, record data and attach combustion analysis data to boiler, steam generator, or process heater records indicating name and signature of person, title, company name, company address and date the tune-up was performed.

Rule 3.22 Internal Combustion Engines (Adopted 06/01/2009)

A. APPLICABILITY

Rule 3.22 applies to all internal combustion engines with rated break horsepower greater than or equal to fifty (≥50 bhp) used in industrial, institutional, and commercial operations that operate within the boundaries of the District.

B. EXEMPTIONS

B.1 This rule shall not apply to the following:

a. The operation of any engine while being used to preserve or protect property, human life, or public health during the existence of a disaster or state of emergency, such as a fire or flood;
b. Emergency standby engines whose total annual hours for maintenance and testing purposes do not exceed 100 hours as determined by a nonresettable hour meter. Hours used specifically for emergencies shall not be limited by this rule;
c. Engines whose total annual hours of operation do not exceed 200 hours as determined by a nonresettable hour meter;
d. Portable engines, as defined in Health and Safety Code, Section 41751;
e. Engines used directly and exclusively for the growing of crops or the raising of animals. This exemption does not apply to any engine used at an agricultural source of air pollution that emits in any 12-month period air emissions greater than or equal the major source thresholds for regulated air pollutants and/or HAPs;
f. Engines operated exclusively in research or testing programs;
g. Gas turbine engines, and;
h. Compression ignition engines with a permitted capacity factor of 15 percent or less.

C. DEFINITIONS

C.1 EMERGENCY STANDBY ENGINE: As defined in the Airborne Toxic Control Measure for Stationary Compression Ignition Engines §93115.4(a)(29).

C.2 EMERGENCY USE: As defined in the Airborne Toxic Control Measure for Stationary Compression Ignition Engines §93115.4(a)(30).

C.3 EXISTING ENGINE: A stationary internal combustion engine installed and operating within the Feather River Air Quality Management District before the date of District adoption of this Rule.

C.4 LEAN-BURN ENGINE: Any spark or compression ignited internal combustion engine that is operated with an exhaust gas stream oxygen concentration of four percent (4%) by volume, or greater. The exhaust gas oxygen content shall be determined from the uncontrolled exhaust gas stream.

C.5 MAINTENANCE AND TESTING: The operation of an emergency standby engine to:

a. Evaluate the ability of the engine or its supported equipment to perform during an emergency. "Supported Equipment" includes, but is not limited to, generators, pumps, transformers, switchgear, and breakers; or
b. Facilitate the training of personnel on emergency activities; or
c. Provide electrical power for the facility when the utility distribution company takes its power distribution equipment offline to service that equipment for any reason that does not qualify as an emergency use.

C.6 NEW ENGINE: A stationary internal combustion engine installed and operating within the Feather River Air Quality Management District after the date of District adoption of this Rule.

C.7 NORTH FRAQMD: The area of the Feather River Air Quality Management District which is north of a line connecting the northern border of Yolo County to the southwestern tip of Yuba County, and continuing along the Southern Yuba County border to Placer County.

C.8 PERMITTED CAPACITY FACTOR: The annual permitted fuel use divided by the product of the manufacturer's specified maximum hourly fuel consumption times 8,760 hours per year.

C.9 RATED BRAKE HORSEPOWER (bhp): The maximum rated brake horsepower specified for the engine by the manufacturer and listed on the nameplate for the unit, regardless of any derating, unless limited by the engine's Permit to Operate.

C.10 RICH-BURN ENGINE: Any spark or compression ignited internal combustion engine that is operated with an exhaust gas stream oxygen concentration of less than four percent (4%) by volume. The exhaust gas oxygen content shall be determined from the uncontrolled exhaust gas stream.

C.11 SOUTH FRAQMD: The area of the Feather River Air Quality Management District which is south of a line connecting the northern border of Yolo County to the southwestern tip of Yuba County, and continuing along the southern Yuba County border to Placer County.

C.12 STATIONARY INTERNAL COMBUSTION ENGINE: Any spark or compression ignited internal combustion engine that is operated, or intended to be operated, at a specific site for more than twelve (12) consecutive months, is attached to a foundation at that site, or is determined to be stationary by the District.

D. REQUIREMENTS

D.1 Emission Limits: All new and existing internal combustion engines shall not operate above the emission limitations according to the area of designation and fuel type, as shown in Table 1 and 2.

Table 1: North FRAQMD Emission Limits

	NOx (ppmv at 15% O2)	**VOC** (ppmv at 15% O2)	**CO** (ppmv at 15% O2)
Spark Ignited Rich Burn	90	250	4,000
Spark Ignited Lean Burn	150	750	4,000
Compression Ignited	600	750	4,000

Table 2: South FRAQMD Emission Limits

	NOx (ppmv at 15% O2)	**VOC** (ppmv at 15% O2)	**CO** (ppmv at 15% O2)
Spark Ignited Rich Burn	25	250	4,000
Spark Ignited Lean Burn	65	750	4,000
Compression Ignited	80	750	4,000

D.2 Alternative Option: In lieu of complying with the requirements of D.1, the owner/operator may choose to permanently remove an existing engine from service and electrify the source. To satisfy this requirement, the owner/operator will:

a. Submit a statement to the Air Pollution Control Officer identifying the engine to be removed no later than six (6) months after District adoption of this rule, and;
b. Have the engine removed and electrify the source no later than three (3) years after District adoption of this rule.

E. ADMINISTRATIVE REQUIREMENTS

E.1 No later than one (1) year after District adoption of this Rule, the owner or operator of one or more stationary internal combustion engines subject to meet the emission limits of D.1 shall submit an Authority to Construct Application.

F. COMPLIANCE DETERMINATION

F.1 Initial Compliance Demonstration: All engines subject to meet the emission limits of D.1 shall demonstrate initial compliance. Initial compliance can be achieved by:

a. Conducting a source test on a unit, or;
b. Providing the District with support documentation which demonstrates that the engine is in compliance with the emission limits of this Rule.

F.2 Initial Compliance Timeline: Initial compliance shall be demonstrated no later than:

a. Two years after District adoption of this Rule for all existing engines, or;
b. Ninety (90) days after the date of initial startup for all new engines.

F.3 On-going Compliance Program: Upon successful demonstration of initial compliance, the owner or operator shall demonstrate on-going compliance as followed:

a. All units shall be source tested at least once every five (5) years, measured from the date of the last source test showing compliance. If initial compliance was satisfied without any source test data, the unit shall be source tested no later than five (5) years after the date of initial startup.

b. During any calendar year in which a source test is not performed, the owner/operator shall use an emission analyzer to take NOx, CO, and O2 readings to verify compliance with the applicable emission limits.

1) The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations.
2) Analyzer test data point intervals shall be no greater than five (5) minutes and data points shall be averaged over no less than fifteen (15) minutes of engine operation.
3) An analyzer reading in excess of the limits specified in Section D.1 shall not be considered a violation so long as the problem is corrected and a follow-up emission reading is conducted within 15 days of the initial emission reading. If the problem cannot be corrected, the operator shall shutdown the engine and notify the District.

F.4 Compliance Inspection: For compliance demonstration purposes, the testing of emissions shall be conducted in the presence of District staff unless District staff is not available.

G. TEST METHODS

G.1 Test Methods: Compliance with the emission limits in Table 1 and 2 shall be determined using the following test procedures:

a. Stack Gas Oxygen - EPA Method 3A or CARB Method 100.
b. Oxides of Nitrogen – EPA Method 7E or CARB Method 100.
c. Carbon Monoxide – EPA Method 10 or CARB Method 100.
d. Volatile Organic Compounds - EPA Method 25A or 25B or CARB Method 100.
e. NOx emission limitations shall be expressed as nitrogen dioxide (NO2). All ppmv emission limitations shall be referenced at 15% volume stack gas oxygen on a dry basis.
f. All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate.
g. The APCO may authorize the use of specific portable analyzers for the measurement of oxides of nitrogen, carbon monoxide, and oxygen which do not meet the requirements of the test methods specified in this section provided that evidence accompanies each test report that instrument operation conformed to manufacturer's recommendations and that the instrument(s) used responded appropriately to calibration gases both before and after testing, and provided that measurements made by the methods specified in this section shall be recognized as more reliable in any dispute involving measurements made by different methods. Evidence of instrument response stability shall be provided if calibration checks are not performed at the test site immediately before and after testing.

H. RECORDKEEPING AND REPORTING REQUIREMENTS

H.1 The facility shall maintain records for a period of five (5) years and shall be made available for inspection by any authorized personnel upon request. The facility shall maintain the following information:

a. The monthly and annual hours of operation or quantity of fuel consumed for each unit, and;

b. A testing log which includes, but is not limited to, initial and on-going emission test results to verify compliance, and;
c. Date(s) and type of maintenance performed.

H.2 A source test protocol shall be submitted to the District for review and approval at least thirty (30) days prior to the source test. The results from the source test shall be submitted to the District within thirty (30) days after testing.

H.3 The facility shall submit a report to the District demonstrating on-going compliance for each engine by March 31 every year.

H.4 The APCO may include additional recordkeeping requirements to assure compliance of this rule for each unit.

RULE 4.0 GENERAL REQUIREMENTS (Adopted 8/91)

a. No person shall cause or permit the construction or modification of any source without first obtaining, as required by regulations, an Authority to Construct or modify from the Air Pollution Control Officer (APCO) so as to comply with applicable rules and regulations and ambient air quality standards.

b. The APCO shall not approve such construction or modification unless the applicant demonstrates, to the satisfaction of the APCO, that the new or modified source can be expected to comply with all applicable regulations and will not prevent the attainment or maintenance of air quality standards.

RULE 4.5 CONDITIONAL APPROVAL (Adopted 8/91)

The APCO may issue an Authorization to Construct or a Permit to Operate, subject to conditions which will bring the operation of any article, machine, equipment or other contrivance within the permit standards of these regulations, in which case the conditions shall be specified in writing. Commencing work under such an Authorization to Construct, or operation under such a Permit to Operate, shall be deemed acceptance of all the conditions so specified. The APCO 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 facility, article, machine, equipment, or other contrivance can operate within the permit standards under the revised conditions.

RULE 4.8 - FURTHER INFORMATION

A. Before acting on an application for Authorization to Construct or Permit to Operate, the Air Pollution Control Officer (APCO) may require the applicant to furnish full information including any plans or specifications. The APCO shall, when requested, make available to the public for examination all information and data compiled by or submitted to him in accordance with Section III of the California Business and Professions Code. The information specified by the applicant as trade secrets shall not be considered public information and the APCO shall maintain the confidentiality of such information.

B. Upon the request of the 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 Resource Board's (ARB) 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.

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 ARB 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 ARB.

RULE 4.12 IMPLEMENTATION PLANS (Adopted 8/91)

The APCO may issue a Permit to Construct for a new stationary source or modification which is subject to Section E. of Rule 10.1 only if all District Regulations contained in the State Implementation Plan approved by the Environmental Protection Agency are being carried out in accordance with that plan.

RULE 4.13 ALTERATION OF PERMIT (Adopted 8/91)

No person shall willfully deface, alter, forge, counterfeit or falsify any permit issued under these rules and regulations.

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

RULE 9.1 EMISSION MONITORING (Adopted 6/91)

The Air Pollution Control Officer may require the owner or operator of any air contaminant source to install, use and maintain monitoring equipment: sample emissions; establish and maintain records; and make periodic emission reports. All of these actions shall be accomplished in a manner approved by the Air Pollution Control Officer.

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

RULE 9.2 RECORDS AND REPORTS (Adopted 6/91)

Air Pollution monitoring records and such fuel composition data as deemed necessary shall be recorded, compiled and submitted on forms furnished by the Air Pollution Control Officer.

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

RULE 9.3 TESTS (Adopted 6/91)

All tests shall be made and the results calculated in accordance with test procedures approved by the Air Pollution Control Officer. All tests shall be made under the direction of persons qualified by training and experience in the field of air pollution control and approved by the Air Pollution Control Officer.

a. The Air Pollution Control Officer may conduct tests of emissions of air contaminants from any source. Upon request of the Air Pollution Control Officer, the person responsible for the source to be tested shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.

RULE 9.5 AIR POLLUTION EQUIPMENT - SCHEDULED MAINTENANCE (Adopted 6/91)

In the case of shut-down or re-start of air pollution equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Air Pollution Control Officer at least twenty-four (24) hours prior to the planned shutdown. Such prior notice may include, but is not limited to the following:

a. Identification of the specific facility to be taken out of service as well as its location and permit number;
b. The expected length of time that the air pollution control equipment will be out of service;
c. The nature and quantity of emissions of air contaminants likely to occur during the shut-down period;
d. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shut-down period;
e. The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period: *During the testing period moderate emission of air pollution may be allowed.*

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

RULE 9.6 EQUIPMENT BREAKDOWN (Adopted 6/91)

In the event that any emission source, air pollution control equipment, or related facility breaks down in such a manner which may cause the emission of air contaminants in violation of this article, the person responsible for such equipment shall immediately notify the Air Pollution Control Officer of such failure or breakdown and subsequently a written statement giving all pertinent facts, including the estimated duration of the breakdown. The Air Pollution Control Officer shall be notified when the condition causing the failure or breakdown has been corrected and the equipment is again in operation.

RULE 10.1 **NEW SOURCE REVIEW** **(Adopted 2/8/1993; Amended 9/13/1993, 4/11/1994, 3/22/1999, 11/20/2001, 6/7/2004, 10/05/2009, 02/06/2012, 10/6/2014)**

A. PURPOSE

The purpose of this rule is:

A.1 To establish preconstruction review requirements including offsets, Best Available Control Technology, all other applicable District Rules and Regulations, and analysis of air quality impacts for new and modified stationary sources, and to insure that the operation of such sources does not interfere with the attainment or maintenance of ambient air quality standards.

A.2 To provide for no net increase in emissions pursuant to Section 40918 and 40920 of the California Health and Safety Code.

B. APPLICABILITY

B.1 This rule shall apply to all new and modified stationary sources which are subject to District permit requirements and which, after construction, emit or may emit any affected pollutants.

B.2 If any source or modification becomes a major source or major modification solely by virtue of the relaxation of any limitation that was established after August 7, 1980, on the capacity of the source or modification to emit a federal nonattainment pollutant or its precursor such as a restriction on hours of operation, then the requirements of this rule shall apply to such a source or modification as though construction had not yet commenced on the source or modification.

B.3 The Regulations in effect at the time any application for an Authority to Construct is deemed complete shall apply, except when a new federal requirement not yet incorporated into this rule applies to the new or modified source.

B.4 The requirements of Sections E.1.b, E.2.a.2, E.5, E.7 and E.8 of this rule shall not apply to $PM_{2.5}$ in the YC-MNA, if EPA re-designates Yuba City-Marysville, CA area as attainment for the federal $PM_{2.5}$ National Ambient Air Quality Standard as codified in 40 CFR 81.305.

B.5 The requirements of Sections E.1.a, E.2.a.1, E.5, E.7 and E.8 of this rule shall not apply to Ozone or its precursors in the SBNA, if EPA re-designates Sutter County (part), CA – Sutter Buttes area as attainment for the federal ozone National Ambient Air Quality Standard as codified in 40 CFR 81.305.

C. EFFECTIVE DATE

This rule shall become effective upon the date of adoption.

D. DEFINITIONS

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

D.1 **Actual Emissions**: The actual rate of emissions measured or estimated which most accurately represent the emissions from an emissions unit.

D.2 **Actual Emission Reductions**: A reduction in actual emissions from an emissions unit.

D.3 **Affected Pollutant**: An air pollutant for which an ambient air quality standard has been established by the U.S. Environmental Protection Agency (EPA) or the California Air Resources Board (ARB), the precursors to such pollutants, and each pollutant listed under Section E.1 of this rule.

D.4 **Ambient Air Quality Standards**: Ambient air quality standards shall be interpreted to include state and federal ambient air quality standards. For the purposes of applicability of this rule to the State Implementation Plan (SIP), all references to ambient air quality standards shall be interpreted as National Ambient Air Quality Standards.

D.5 **Begin Actual Construction**: Initiation of physical on-site construction activities on an emissions unit which is of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operation that does not involve a physical change, this term refers to those on-site

activities, other than preparatory activities, which mark the start of the change in the method of operation.

D.6 **Best Available Control Technology (BACT)**: For any emissions unit, the more stringent of:

a. The most effective emission control device, emission limit, or technology which has been required or used for the type of equipment comprising such emissions unit unless the applicant demonstrates to the satisfaction of the District that such limitations are not achievable; or

b. Any other emission control device or technique, alternative basic equipment or different fuel or process, determined by the District to be technologically feasible and cost-effective and which provides an equivalent level of control.

Under no circumstances shall BACT be determined to be less stringent than the emission control required by any applicable provision of District, state, or federal laws or regulations, unless the applicant demonstrates to the satisfaction of the APCO that such limitations are not achievable.

D.7 **Class I Area:** Any area listed as Class I in 40 CFR 81.405 or an area otherwise specified as Class I in the legislation that creates a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore.

D.8 **Commence:** As applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:

a. Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or

b. Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

D.9 **Complete Application**: An application that contains all information required by the District to adequately evaluate the nature and extent of potential emissions from a proposed new or modified facility or emissions unit. Completeness shall be evaluated on the basis of a list of

required information as approved by the District pursuant to Article 3, Sections 65940 through 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code.

D.10 **Contiguous Property**: Two or more parcels of land with a common boundary or separated solely by a public or private roadway or other public right-of-way.

D.11 **Control Efficiency**: The percentage of pollutants vented to an add-on control device that are not then emitted or released to the atmosphere. Emission reductions attributed to lowering throughput rates or operating hours shall not be considered in determining control efficiency.

D.12 **Construction:** 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.

D.13 **Cost-effective**: A cost per pound of emission reduction which is deemed to be acceptable and feasible, on a pollutant and emissions unit basis, by the APCO.

D.14 **Daily Emissions Limitation**: One or more permit conditions specific to an emissions unit which restricts its maximum daily emissions in pounds per day, at or below the emissions associated with the maximum design capacity.

D.15 **Day**: A calendar day unless otherwise indicated.

D.16 **Emission Reduction Credits (ERCs)**: Reductions of actual emissions certified in accordance with the requirements of this rule and the District's Banking Rules.

D.17 **Emissions Unit**: An identifiable operation or piece of process equipment such as an article, machine, or other contrivance which emits, may emit, or results in the emission of any affected pollutant directly or as fugitive emissions. Emissions unit shall not include open burning of agricultural biomass.

D.18 **Enforceable**: Capable of being enforced by the District and EPA, including through either the SIP or inclusion of conditions on an Authority to Construct, Permit to Operate, Determination of Compliance or Emission Reduction Credit (ERC) Certificate. For emission reduction credits not required to meet a federal offset requirement, a legally binding written contract may be executed with the District.

D.19 **Federally Enforceable**: All limitations and conditions which are enforceable by the EPA administrator, including those requirements developed pursuant to 40 CFR parts 60, 61 and 63, requirements within the California SIP, any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR part 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the SIP and expressly requires adherence to any permit issued under such program.

D.20 **Fluorides**: Elemental fluorine and all fluoride compounds.

D.21 **Fugitive Emissions**: Those emissions which can not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

D.22 **Historic Actual Emissions**: Actual emissions from an existing emissions unit averaged over the two year period immediately preceding the date of application. If the last two years are unrepresentative of normal operations as determined by the APCO, then a consecutive two year period during the last five years which is representative of normal operations may be used. If, at any time during the specified period, actual emissions exceeded allowed emission levels, then actual emissions shall be reduced to reflect emission levels that would have occurred if in compliance with all applicable limitations and rules. Where an emissions unit has been in operation for less than two years, or if a seasonal source, a shorter averaging period of at least one year may be used, providing it represents 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 historic actual emissions shall be zero.

D.23 **Historic Potential Emissions**: The allowable potential to emit of an existing emissions unit prior to modification. For a new emissions unit, historic potential emissions are equal to zero.

D.24 **Impact Analysis**: An air quality modeling analysis used to estimate the maximum ground level concentration of any pollutant subject to this rule.

D.25 **Major Stationary Source**: Any stationary source of air pollutants that emits, or has the potential to emit,

a. 100 tons per year or more of any affected pollutant; or
b. 25 tons per year or more of nitrogen oxides or reactive organic gases if located in the SFNA.

The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this paragraph whether it is a major stationary source unless the source belongs to one of the categories of stationary sources included in 40 CFR 51.165(a)(1)(iv)(C).

D.26 **Major Modification**: A modification, as defined in Section D.27, to a major stationary source in the SFNA, YC-MNA, or SBNA which results in a significant emissions increase of the nonattainment pollutant for which the source is classified as a major stationary source.

D.27 **Modification**: Any physical change or operational change to an existing emissions unit, including a change in hours of operation or production rate which would necessitate a change in permit conditions. A modification to a stationary source shall include any modification of its permitted emissions units or addition of any new emissions unit. A modification also occurs when there is an increase of emissions from an emissions unit which is not subject to a daily emissions limitation. A reconstructed stationary source shall be treated as a new stationary source and not as a modification. The following shall not be considered a modification:

a. Routine maintenance or repair;
b. A change in ownership; or
c. Replacement of an existing emissions unit, part of an emissions unit, or emissions control device with an identical (the same in all respects except for the serial number) piece of equipment resulting in emissions less than or equal to those from the original equipment or device and not requiring a change in permit conditions.

D.28 **Necessary Preconstruction Approvals or Permits:** Federal air quality control laws and regulations and those air quality control laws and regulations which are part of the SIP.

D.29 **Net Air Quality Benefit**: A net improvement in air quality resulting from actual emission reductions impacting the same general area affected by the new or modified source.

D.30 **Nonattainment Pollutant**: Any pollutant, as well as any precursors of such pollutant, which has been designated

nonattainment by the EPA in 40 CFR 81.305, or which has been designated nonattainment by the ARB pursuant to Section 39607, CH&S Code.

D.31 **Non-permitted Emissions**: Those emissions of an air pollutant into open air from emission sources that are not required to have air pollution permits. Non-permitted emissions may include emissions from agricultural burning, mobile sources, exempt emission units, and sources that were never required to be permitted under the District's New Source Review Rule.

D.32 **North FRAQMD**: The area of the Feather River Air Quality Management District which is north of a line connecting the northern border of Yolo County to the southwestern tip of Yuba County, and continuing along the southern Yuba County border to Placer County (see Figure 1).

D.33 **Offset**: An emission reduction that compensates for an emission increase of an affected pollutant from a new or modified stationary source subject to the requirements of Section E.2.

D.34 **PM_{10}**: Particulate matter with aerodynamic diameter smaller than or equal to a nominal 10 microns. Gaseous emissions which condense to form particulate matter at ambient temperatures shall be included.

D.35 **$PM_{2.5}$:** Particulate matter with an aerodynamic diameter smaller than or equal to a nominal 2.5 microns. Gaseous emissions which condense to form particulate matter at ambient temperatures shall be included.

D.36 **Permanent**: Actual emission reductions that occur for the life of the project. Except for open burning biomass ERCs, when ERCs are used as offsets, emission reductions must last the life of the new or modified source emission increases for which they are used.

D.37 **Potential to Emit**: The maximum daily and annual capacity of an emission unit to emit a pollutant under its physical and operational design. Any physical or operational limitation on the daily and/or annual capacity of the unit to emit a pollutant, including pollution control equipment and restrictions in hours of operation, or on the type or amount of material combusted, stored or processed, shall be treated as part of its design only if the limitation, or the effect it would have on emissions is incorporated into

the applicable permit as a legally and practically enforceable permit condition.

D.38 **Precursor**: A directly emitted pollutant that, when released to the atmosphere, forms or contributes to the formation of a secondary air pollutant for which an ambient air quality standard has been adopted. The following precursor relationships shall be used:

PRECURSOR	SECONDARY AIR POLLUTANT
Reactive Organic Gases	a. Photochemical oxidants (Ozone) b. The organic fraction of PM_{10}
Nitrogen Oxides	a. Photochemical oxidants (Ozone) b. Nitrogen dioxide c. The nitrate fraction of PM_{10} d. The nitrate fraction of $PM_{2.5}$
Sulfur Oxides	a. Sulfur dioxide b. Sulfates c. The sulfate fraction of PM_{10} d. The sulfate fraction of $PM_{2.5}$

D.39 **Proposed Emissions**: The potential to emit for a new or post-modification emissions unit or daily and annual emission rates specified in an application which will be incorporated into the permit as legally and practically enforceable permit conditions.

D.40 **Quantifiable**: Emission reductions that can be reliably and replicably measured. Quantification may be based on emission factors, stack tests, monitored values, operating rates and averaging times, process or production inputs, modeling, or other reasonable and measurable practices.

D.41 **Reactive Organic Gases:** Any compound of carbon, excluding the following:

a. carbon monoxide;
b. carbon dioxide;
c. carbonic acid;
d. metallic carbides or carbonates;
e. ammonium carbonate;
f. methane;
g. methylene chloride (dichloromethane);
h. 1,1,1-trichloroethane (methyl chloroform);
i. 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
j. trichlorofluoromethane (CFC-11);
k. dichlorodifluoromethane (CFC-12);
l. chlorodifluoromethane (HCFC-22);
m. trifluoromethane (HFC-23);

n. 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114);
o. chloropentafluoroethane (CFC-115);
p. 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123);
q. 1,1,1,2-tetrafluoroethane (HFC-134a);
r. 1,1-dichloro 1-fluoroethane (HCFC-141b);
s. 1-chloro 1,1-difluoroethane (HCFC-142b);
t. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
u. pentafluoroethane (HFC-125);
v. 1,1,2,2-tetrafluoroethane (HFC-134);
w. 1,1,1-trifluoroethane (HFC-143a);
x. 1,1-difluoroethane (HFC-152a);
y. cyclic, branched, or linear completely methylated siloxanes;
z. 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca);
aa. 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb);
bb. 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee);
cc. difluoromethane (HFC-32);
dd. ethylfluoride (HFC-161);
ee. 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);
ff. 1,1,2,2,3-pentafluoropropane (HFC-245ca);
gg. 1,1,2,3,3-pentafluoropropane (HFC-245ea);
hh. 1,1,1,2,3-pentafluoropropane (HFC-245eb);
ii. 1,1,1,3,3-pentafluoropropane (HFC-245fa);
jj. 1,1,1,2,3,3-hexafluoropropane (HFC-236ea);
kk. 1,1,1,3,3-pentafluorobutane (HFC-365mfc);
ll. chlorofluoromethane (HCFC-31);
mm. 1-chloro-1-fluoroethane (HCFC-151a);
nn. 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a);
oo. 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane ($C_4F_9OCH_3$ or HFE-7100);
pp. 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ($(CF_3)_2CFCF_2OCH_3$);
qq. 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane ($C_4F_9OC_2H_5$ or HFE-7200);
rr. 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ($(CF_3)_2CFCF_2OC_2H_5$);
ss. 1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane (n-$C_3F_7OCH_3$ or HFE-7000);
tt. 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE-7500);
uu. 1,1,1,2,3,3,3-heptafluoropropane (HFC 227ea),
vv. methyl formate ($HCOOCH_3$);
ww. 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300);
xx. dimethyl carbonate;
yy. propylene carbonate;

zz. perfluorocarbon compounds which fall into these classes:
    1. cyclic, branched, or linear, completely fluorinated alkanes;
    2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
    3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
    4. sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine;

aaa. low-reactive organic compounds which have been exempted by the U.S. EPA:
    1. acetone;
    2. ethane;
    3. methyl acetate;
    4. perchloroethylene (tetrachloroethylene); and
    5. parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene);

bbb. The following compound(s) for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements which apply to ROG and shall be uniquely identified in emission reports, but are not ROG for purposes of ROG emissions limitations or ROG content requirements:
    1. tertiary butyl acetate;

D.42 **Real**: A real emission reduction means that actual air emissions are reduced.

D.43 **Reconstructed Source**: Any stationary source undergoing physical modification where the fixed capital cost of the new components exceeds fifty (50) percent of the fixed capital cost of a comparable entirely new stationary source. Fixed capital cost means the capital needed to provide all the depreciable components.

D.44 **Reduced Sulfur Compounds**: The sulfur compounds hydrogen sulfide, carbon disulfide, and carbonyl sulfide.

D.45 **Sacramento Federal Nonattainment Area for Ozone (SFNA):** The area defined in 40 CFR Section 81.305 for the Sacramento Metro Area.

D.46 **Seasonal Source**: Any source with more than seventy-five percent (75%) of its annual emissions within a consecutive 120 day period.

D.47 **Shutdown**: Either the earlier of the permanent cessation of emissions from an emitting unit or the surrender of that unit's operating permit.

D.48 **Significant:** In reference to an emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Area	Pollutant	Emissions Rate
SBNA	Ozone	40 tpy of reactive organic gases or nitrogen oxides
SFNA	Ozone	25 tpy of reactive organic gases or nitrogen oxides aggregated with all other increases in potential to emit of the same pollutant over a five consecutive year period before the application for modification, including the calendar year of the most recent application
YC-MNA	$PM_{2.5}$	10 tpy of direct $PM_{2.5}$ emissions; or 40 tpy of sulfur dioxide or nitrogen oxide emissions

D.49 **Significant Emissions Increase:** For a nonattainment pollutant, an increase in emissions that is significant for that pollutant.

D.50 **Stationary Source**: Any building, structure, or facility which emits or may emit any affected pollutant directly or as a fugitive emission. Building, structure, or facility means all pollutant emitting activities, including emissions units which:

a. Are under the same or common ownership, operation, or control, or which are owned or operated by entities which are under common control and belong to the same industrial grouping, either by virtue of falling within the same two-digit Standard Industrial Classification (SIC) Code, or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw material; and

b. Are located on one or more contiguous or adjacent properties. On a case-by-case basis, offsite support facilities may be included when reviewing major stationary source applicability.

For purposes of Rule 10.2, open biomass burning will be considered a source and such activity requires an annual burning permit.

D.51 **South FRAQMD**: That area of the Feather River Air Quality Management District which is south of a line connecting the northern border of Yolo County to the southwestern tip of Yuba County, and continuing along the southern Yuba County border to Placer County (see Figure 1).

D.52 **Surplus**: The amount of emission reductions that are, at the time of generation of an ERC, not otherwise required by federal, state, or local law, not required by any legal settlement or consent decree, and not relied upon to meet any requirement related to the California SIP. Examples of federal, state, and local laws, and of SIP-related requirements, include, but are not limited to, the following:

a. The federally-approved California SIP;
b. Other adopted State air quality laws and regulations not in the SIP, including but not limited to, any requirement, regulation, or measure that:
    1. the District or the State has included on a legally-required and publicly-available list of measures that are scheduled for adoption by the District or the State in the future; or
    2. is the subject of a public notice distributed by the District or the State regarding an intent to adopt such revision;
c. Any other source or source-category specific regulatory or permitting requirement, including, but not limited to, Reasonable Available Control Technology (RACT), New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Best Available Control Measures (BACM), Best Available Control Technology (BACT), and the Lowest Achievable Emission Rate (LAER); and
d. Any regulation or supporting documentation that is required by the federal Clean Air Act but is not contained or referenced in 40 CFR Part 52, including but not limited to: assumptions used in attainment and maintenance demonstrations (including Reasonable Further Progress demonstrations and milestone demonstrations), including any proposed control measure identified as potentially contributing to an enforceable near-term emissions reduction commitment; assumptions used in conformity demonstrations; and assumptions used in emissions inventories.

D.53 **Sutter Buttes Nonattainment Area for Ozone (SBNA):** The area defined in 40 CFR Section 81.305 for the Sutter County (part), CA – Sutter Buttes area.

D.54 **Total Reduced Sulfur Compounds**: The sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide and dimethyl disulfide.

D.55 **Volatile Organic Compound (VOC)**: Shall have the same meaning as reactive organic gases.

D.56 **Yuba City-Marysville Nonattainment Area for $PM_{2.5}$ (YC-MNA):** The area defined in 40 CFR Section 81.305 for the Yuba City-Marysville, CA area.

E. REQUIREMENTS

Any stationary source subject to this rule shall be subject to the following requirements:

E.1 **BEST AVAILABLE CONTROL TECHNOLOGY (BACT)**: For each new or modified stationary source, the emission increases and the post-project potential to emit for a project, as determined pursuant to Section F of this rule, shall be used to determine BACT applicability, as follows:

a. For sources emitting reactive organic gases or nitrogen oxides, and located in the SFNA or SBNA portions of the FRAQMD, BACT shall apply to all emission units located at a new major source or to the modification of an existing emission unit that results in a major modification.

b. For sources emitting $PM_{2.5}$ and located in the YC-MNA portion of the FRAQMD, BACT shall apply to all emission units located at a new major source or to the modification of an existing emission unit that results in a major modification.

c. For sources emitting reactive organic gases or nitrogen oxides, and located in the SFNA portion of the FRAQMD, BACT shall apply to a new or modified emission unit which results in an emission increase, if the potential to emit of the emission unit equals or exceeds 10.0 pounds per day.

d. For sources emitting reactive organic gases or nitrogen oxides, and located in the non-SFNA portion of the FRAQMD, BACT shall apply to a new or modified emission unit which results in an emission increase,

if the potential to emit of the emission unit equals or exceeds 25.0 pounds per day.

e. For sources emitting an affected pollutant other than reactive organic gases or nitrogen oxides, and located in any portion of the FRAQMD, BACT shall apply to a new or modified emission unit that results in an emissions increase and the potential to emit of the emission unit equals or exceeds the thresholds listed in Table 1:

Table 1: BACT thresholds	
Pollutant	**Pounds/Day**
Particulate matter (PM_{10})	80.0
Sulfur oxides	80.0
Carbon monoxide	500.0
Lead	3.2
Asbestos	0.03
Beryllium	0.002
Mercury	0.5
Vinyl chloride	5.0
Fluorides	15.0
Sulfuric acid mist	35.0
Hydrogen sulfide	50.0
Total reduced sulfur compounds	50.0
Reduced sulfur compounds	50.0

E.2 **OFFSETS**:

a. For each new or modified stationary source, the emission increases and the post-project potential to emit for a project, as determined pursuant to Section F of this rule, shall be offset as follows:

1. For a project located in the SFNA or SBNA which has an emission increase of reactive organic gases or nitrogen oxides at a rate that constitutes a new major source or a major modification, shall offset the entire emission increase from the project.
2. For a project located in the YC-MNA area for $PM_{2.5}$ which has an emission increase of $PM_{2.5}$ at a rate that constitutes a new major source or a major modification, shall offset the entire emission increase from the project.
3. For a project located in the SFNA which has a potential to emit reactive organic gases or nitrogen oxides at a rate of 10 tons per year (tpy) or more, all emission increases above 10 tpy shall be offset.

4. For a project located in the non-SFNA which has a potential to emit reactive organic gases or nitrogen oxides at a rate of 25 tpy or more, all emission increases above 25 tpy shall be offset.
5. For a project located anywhere in the District which has a potential to emit PM_{10} or a PM_{10} precursor at a rate of 25 tpy or more, all emission increases above 25 tpy shall be offset.

b. All offsets shall be real, surplus, enforceable, quantifiable, and permanent.

c. Offsets shall be provided on a quarterly basis in proportion to projected quarterly emission rates.

d. All offsets shall commence not later than the initial operation of the new or modified source, and the offsets shall be maintained throughout the operation of the new or modified source which is the beneficiary of the offsets.

e. **LOCATION OF OFFSETS AND OFFSET RATIOS**:
1. The applicable offset ratio shall be determined based on the location of the new or modified stationary source required to obtain offsets and the distance to the location of the emission offsets, as indicated in the following tables:

Table 2: For projects required to obtain ROG or NOx offsets pursuant to E.2.a.1 and E.2.a.3	
Location of Emission Offsets	**Emission Offset Ratio**
Same Source	1.3:1
Within 15-mile radius and within the same nonattainment area (i.e. SFNA or SBNA)	1.3:1
Greater than 15-mile radius, but within 50-mile radius and within the same nonattainment area (i.e. SFNA or SBNA)	1.5:1
More than 50-mile radius and within the same nonattainment area (i.e. SFNA or SBNA)	2.0:1

Table 3: For projects required to obtain $PM_{2.5}$ offsets pursuant to E.2.a.2	
Location of Emission Offsets	**Emission Offset Ratio**
Same Source	1.0:1

Table 3: For projects required to obtain $PM_{2.5}$ offsets pursuant to E.2.a.2	
Location of Emission Offsets	**Emission Offset Ratio**
Within 15-mile radius and within the YC-MNA	1.2:1
Greater than 15-mile radius, but within 50-mile radius and within the YC-MNA	1.5:1
More than 50-mile radius and within the YC-MNA	2.0:1

Table 4: For projects required to obtain ROG or NOx offsets pursuant to E.2.a.4	
Location of Emission Offsets	**Emission Offset Ratio**
Same Source	1.15:1
Within 20-mile radius	1.2:1
Greater than 20-mile radius, but within 50-mile radius	1.5:1
More than 50-mile radius	2.0:1

Table 5: For projects required to obtain PM_{10} offsets pursuant to E.2.a.5	
Location of Emission Offsets	**Emission Offset Ratio**
Same Source	1.0:1
Within 15-mile radius	1.2:1
Greater than 15-mile radius, but within 50-mile radius	1.5:1
More than 50-mile radius	2.0:1

2. Offsets which are not on-site must result in a net air quality benefit, as determined by the APCO.
3. Offsets which are obtained from a source located in another Air District may be used only if the provisions of CH&S Code Section 40709.6 are met and the involved Air Districts enter into an agreement formalized by a memorandum of understanding.
4. Offsets which are used for Federal requirements in the SFNA and are obtained from a source

located in another Air District within the SFNA may be used only if the provisions of Section E.2.e.3 above are met and EPA approval is obtained.

f. **INTERPOLLUTANT OFFSETS**: The APCO may approve the substitution of one air contaminant for another air contaminant to meet the requirement for offsetting an emission increase on a case-by-case basis, provided that the applicant demonstrates to the satisfaction of the APCO, through the use of an impact analysis, that the emission increases from the new or modified source and offsets provided will result in a net air quality benefit and will not cause or contribute to a violation of any air quality standard.
   1. In such cases, the APCO may, based on an air quality analysis, impose offset ratios greater than the requirements of Section E.2.e of this rule.
   2. Interpollutant offsets between PM_{10} and PM_{10} precursors shall be allowed. PM_{10} emissions shall not be allowed to offset nitrogen oxide or reactive organic compound emissions.
   3. Interpollutant offsets between $PM_{2.5}$ and $PM_{2.5}$ precursors are allowed at specific ratios as approved into the SIP.
   4. Interpollutant offsets used for federal requirements shall also require EPA approval.

g. Emissions of reactive organic gases during the quarters starting April 1 and July 1 may be used to offset emission increases of reactive organic gases during the quarters starting October 1 and January 1.

h. Emissions of nitrogen oxides during the quarters starting April 1 and July 1 may be used to offset emission increases of nitrogen oxides during the quarters starting October 1 and January 1.

E.3 **AMBIENT AIR QUALITY STANDARDS**: In no case shall the emissions from the new or modified stationary source cause or make worse the violation of an ambient air quality standard. The APCO may require an impact analysis to estimate the effects of a new or modified source. In making this determination the APCO shall take into account the mitigation of emissions through offsets obtained pursuant to this rule.

E.4 **DENIAL – FAILURE TO MEET STANDARDS**: The APCO shall deny any Authority to Construct or Permit to Operate if the APCO

finds that the subject of the application would not comply with the standards set forth in this rule.

E.5 **COMPLIANCE BY OTHER OWNED, OPERATED, OR CONTROLLED SOURCES:** The owner or operator of a proposed new major source or major modification shall certify to the APCO that all major stationary sources, which are owned or operated by such person (or by any entity controlling, controlled by, or under common control with such a person) in California which are subject to emission limitations are in compliance, or on a schedule for compliance, with all applicable emission limitations and standards.

E.6 **RECALCULATING PM_{10} FROM TOTAL SUSPENDED PARTICULATE:** The PM_{10} emissions from an existing stationary source shall be recalculated from the Total Suspended Particulate (TSP) emissions increases and decreases which have occurred since August 20, 1983 using applicable PM_{10} emission factors. When applicable PM_{10} emission factors do not exist, assume 50 percent of TSP is PM_{10}.

If the applicant has provided full offsets for TSP emissions occurring since August 20, 1983 but before February 8, 1993, those TSP emissions need not be recalculated as PM_{10}. However, any subsequent emissions increase in PM_{10} emissions shall be subject to the offset requirements of this rule.

E.7 **ALTERNATIVE SITING**: For new major sources or major modifications for which an analysis of alternative sites, sizes, and production processes is required under Section 173 of the Clean Air Act, the APCO shall require the applicant to prepare an alternative siting analysis that is functionally equivalent to the requirements of Division 13 of the Public Resources Code (California Environmental Quality Act - CEQA). An Authority to Construct shall not be issued unless the APCO has concluded, based on the information contained in the alternative siting analysis, that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

E.8 **POTENTIAL VISIBILITY IMPACTS:** The APCO shall consult with the Federal Land Manager on a proposed major stationary source or major modification that may impact visibility in any Class I Area, in accordance with 40 CFR 51.307 if the net emissions increase from the new or modified source exceeds 10 tons/year of $PM_{2.5}$, 15 tons/year of PM_{10}, or 40

tons/year of NOx; and the location of the source, relative to the closest boundary of a specified federal Class I area is within 20 miles.

F. CALCULATIONS

This section shall be used to determine the emissions change for all new or modified emissions units, the actual emission reductions for all shutdowns and modified emissions units and the cumulative emissions increase from all new and modified emissions units located at a stationary source.

F.1 **EMISSION CALCULATION REQUIREMENTS**:

a. For each project a separate emission calculation shall be made for each emission unit, affected pollutant emitted, and calendar quarter.
b. If a project consists of more than one emission unit, the total emissions from all emissions units shall be summed to determine the emissions change for the project.

F.2 **EMISSIONS CHANGE CALCULATIONS**:

a. The emissions change for new emission units or stationary sources shall be the emission limits proposed in the current application.
b. If the historic actual emissions of the emission unit being modified are more than 80% of the historic potential emissions, the emissions change shall be calculated by subtracting the historic potential emissions from the emission limits proposed in the current application.
c. The emissions change for modified emission units shall be calculated by subtracting the historic actual emissions from the emission limits proposed in the current application.
d. If the emissions change for modified emission unit(s) calculated pursuant to Section F.2.b or F.2.c above does not result in a major modification, the emissions change shall be calculated by subtracting the historic potential emissions from the emission limits proposed in the current application.
e. The emissions change for a shutdown emissions unit shall be the historic actual emissions.
f. The emissions change for a modification consisting solely of the installation of control equipment or implementation of a more efficient process shall be

the historic actual emissions times the new overall control efficiency.

F.3 **SECTION E REQUIREMENTS BASED ON SECTION F EMISSION CALCULATIONS:**

a. The provisions of Section E.1 shall be used to determine BACT applicability.

b. The provisions of Section E.2 shall be used to determine the quantity of offsets required.

c. If the Section F calculation procedures determine the project will result in a decrease or no change in emissions, BACT and offsets are not required.

F.4 **DETERMINING POTENTIAL TO EMIT FOR A STATIONARY SOURCE:** The potential to emit for a stationary source shall be equal to the sum of potentials to emit for each emission unit covered by permits to operate or authorities to construct, issued prior to February 8, 1993. In addition, emission increases from new or modified emissions units occurring on or after February 8, 1993 shall be added to the sum of potentials to emit for existing emissions units. The potential to emit for a stationary source shall not be adjusted for actual emissions reductions which occur after February 8, 1993.

G. AIR QUALITY IMPACT ANALYSIS

In no case shall emissions from a new or modified emissions unit cause or make worse the violation of an ambient air quality standard. The APCO may require an applicant to use an air quality model to estimate the effects of a new or modified emissions unit or facility. For the purpose of performing an impact analysis, the following shall apply:

G.1 Air quality models shall be based on applicable air quality model, data bases, and other requirements specified in appendix W of 40 CFR 51, unless the APCO finds that such model is inappropriate for use. After making such a finding, the APCO may designate an alternate model, after providing public notice for comment, with the concurrence of the ARB and the EPA. All modeling costs associated with the siting of a new or modified emissions unit or facility shall be borne by the applicant;

G.2 Maximum ground level concentrations determined by modeling shall be added to background concentration levels and compared to ambient air quality standards;

G.3 In performing an impact analysis, if the proposed stack height is higher than is dictated by good engineering practices, the actual height used for the purposes of modeling shall be calculated in accordance with good engineering practices.

H. ADMINISTRATIVE REQUIREMENTS

The following administrative requirements shall apply to this rule:

H.1 **COMPLETE APPLICATION**:

a. The District shall determine whether an application is complete not later than 30 days after receipt of the application, or after such longer time mutually agreeable to the applicant and the District.

b. If the District determines that the application is not complete, the applicant shall be notified in writing of the decision and of the required additional information. Upon receipt of any resubmittal of the application, a new thirty (30) day period to determine completeness shall begin.

c. Upon determination that the application is complete, the District shall notify the applicant in writing.

d. The District may, during the processing of the application, request an applicant to clarify, amplify, correct, or otherwise supplement the information submitted in the application.

H.2 **PRELIMINARY DECISION**: Following acceptance of an application as complete, the District shall perform the evaluations required to determine compliance with this rule and make a preliminary written decision as to whether an Authority to Construct should be approved, conditionally approved, or disapproved. The decision shall be supported by a written analysis.

H.3 **PUBLICATION AND PUBLIC COMMENTS**: Within 10 days following a preliminary decision on the Authority to Construct for an emissions unit or stationary source which triggers the offset requirements of Section E.2, or a stationary source that meets the definition of a lead point source as defined in 40 CFR 51.100(k)(2), the APCO shall publish in at least one newspaper of general circulation in the District a notice stating the preliminary decision of the APCO noting how pertinent information can be obtained, how a request

for a public hearing may be made, and inviting written public comment for a 30-day period following the date of publication. Copies of such notice shall be sent to the ARB and the EPA.

H.4 **PUBLIC INSPECTION**:

a. The APCO shall make available for public inspection at the District's office the information submitted by the applicant and the APCO's analysis no later than the time that notice of the preliminary decision is published pursuant to Section H.3.
b. The APCO's analysis shall also be transmitted, no later than the date of publication, to the ARB and the EPA regional office.
c. Information submitted which contains trade secrets shall be handled in accordance with Section 6254.7 of the Government Code and relevant sections of the Administrative Code of the State of California.

H.5 **AUTHORITY TO CONSTRUCT – FINAL ACTION**:

a. Within 180 days after acceptance of an application as complete, the APCO shall take final action on the application after considering all written comments.
b. The APCO shall provide written notice of the final action to the applicant, the EPA, and the ARB, and shall make the notice and all supporting documents available for public inspection at the District's office for all Authorities to Construct issued for emissions units subject to the requirements of Section E.2 of this rule.

H.6 **REQUIREMENTS – PERMIT TO OPERATE**:

a. As a condition for the issuance of a Permit to Operate, the APCO shall require that any new source or modification, and any sources which provide offsets, be operated in the manner assumed in making the analysis to determine compliance with this rule.
b. The Permit to Operate shall include daily emission limitations which reflect all applicable emissions limitations, including BACT.

H.7 **REQUIREMENTS – EMISSION REDUCTION CREDITS (ERCs):**

a. As a condition for the issuance of a Permit to Operate, the APCO shall ensure that the stationary source which provides emission offsets is subject to enforceable permit conditions containing specific emissions limitations and/or operational limitations

which ensure that the emission reductions are permanent and practically enforceable.

b. Where the source of offsets is a non-permitted source, the District may require the non-permitted source to obtain an enforceable permit, complete with operational and emission limitations.

c. If the District, pursuant to state laws or District regulations, cannot permit the emissions unit, the source creating the offsets shall execute a legally binding contract between the applicant and the owner or operator of such offset source which, by its terms, shall be enforceable by the District.

d. A violation of the emission limitation provisions of any such contract shall be chargeable to the applicant.

H.8 **ISSUANCE – PERMIT TO OPERATE**:

a. The APCO shall only issue a Permit to Operate after determining the emission unit(s) or stationary source has meet all the requirements of this rule.

b. The APCO shall determine that all conditions specified in the Authority to Construct have been or will be complied with by any dates specified.

c. Where a new or modified emissions unit is, in whole or in part, a replacement for an existing emissions unit on the same property, the APCO may allow a maximum of 90 days as a start-up period for simultaneous operation of the existing emissions unit and the new replacement.

H.9 **REGULATIONS IN FORCE GOVERN**:

a. The granting or denial of an Authority to Construct shall be governed by the requirements of this rule in force on the date the application is deemed complete, except when a new federal requirement not yet incorporated into this rule applies to the new or modified source.

b. The APCO shall deny an Authority to Construct for any new stationary source or modification, or any portion thereof, unless the new source or modification, or applicable portion thereof, complies with the provisions of this rule and all other applicable District Rules and Regulations.

H.10 **PERMIT CONDITIONS**:

a. The APCO shall place conditions on the Authority to Construct and/or Permit to Operate which will ensure

that the construction, modification, or operation of a stationary source will comply with all applicable rules and regulations.

b. For the purpose of drafting verifiable and practical conditions such conditions may include, but not be limited to, hours of operation, processing parameters, periods of use, and emission limitations on an hourly, daily, or yearly basis.

H.11 **SHUTDOWN OF SOURCE**: If the APCO determines that the unit has been removed or fallen into an inoperable and unmaintained condition, the APCO may notify the owner of intent to cancel the permit. If the owner does not respond within sixty (60) days, the APCO may cancel the permit and deem the source shutdown as of the date of last emissions.

I. POWER PLANTS

I.1 **GENERAL**: 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 has been accepted by the California Energy Commission (CEC). The District may apply to the CEC for reimbursement of all costs incurred, including lost fees, in order to comply with the provisions of this section.

I.2 **INTENT TO PARTICIPATE AND PRELIMINARY REPORT**: Within fourteen days of receipt of a NOI, the APCO shall notify the ARB and the CEC of the District's intent to participate in the NOI proceeding. If the District chooses to participate in the NOI proceeding, the APCO shall prepare and submit a report to the ARB and the CEC prior to the conclusion of the non-adjudicatory hearing specified in Section 25509.5 of the Public Resources Code. That report shall include, at minimum:

a. A preliminary specific definition of BACT 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; and

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 NOI.

I.3 **DETERMINATION OF COMPLIANCE REVIEW**:

a. Upon receipt of an Application for Certification (AFC) for a power plant, the APCO 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 Authority to Construct had been received for the power plant.

b. If the information contained in the AFC does not meet the requirements of this rule, the APCO shall, within twenty calendar days of receipt of the AFC, so inform the Commission, and the AFC shall be considered incomplete and returned to the applicant for resubmittal.

I.4 **EQUIVALENCY OF APPLICATION**: The APCO shall consider the AFC to be equivalent to an application for Authority to Construct during the Determination of Compliance review, and shall apply all provisions of this rule which apply to an application for an Authority to Construct.

I.5 **NEED FOR ADDITIONAL INFORMATION**: The APCO may request from the applicant any information necessary for the completion of the Determination of Compliance review. If the APCO is unable to obtain the information, the APCO may petition the presiding Commissioner of the CEC for an order directing the applicant to supply such information.

I.6 **PRELIMINARY DETERMINATION**: Within 180 days (or within 120 days for any application filed pursuant to Sections 25540 through 25540.6 of the Public Resources Code) of an AFC having been accepted, the APCO shall make a preliminary written 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 BACT requirements and a description of required mitigation measures; or in the event of non-compliance, the specific regulations that would be violated and the basis for such determination, and those regulations with which the proposed power plant would comply, including required BACT and mitigation measures. The preliminary written decision under Section I.6 shall be treated as a preliminary decision under Section H.2 of this rule, and shall be finalized by

the APCO only after being subject to the public notice and comment requirements of Sections H.3 through H.5. The APCO shall not issue a Determination of Compliance unless all requirements of this rule are met.

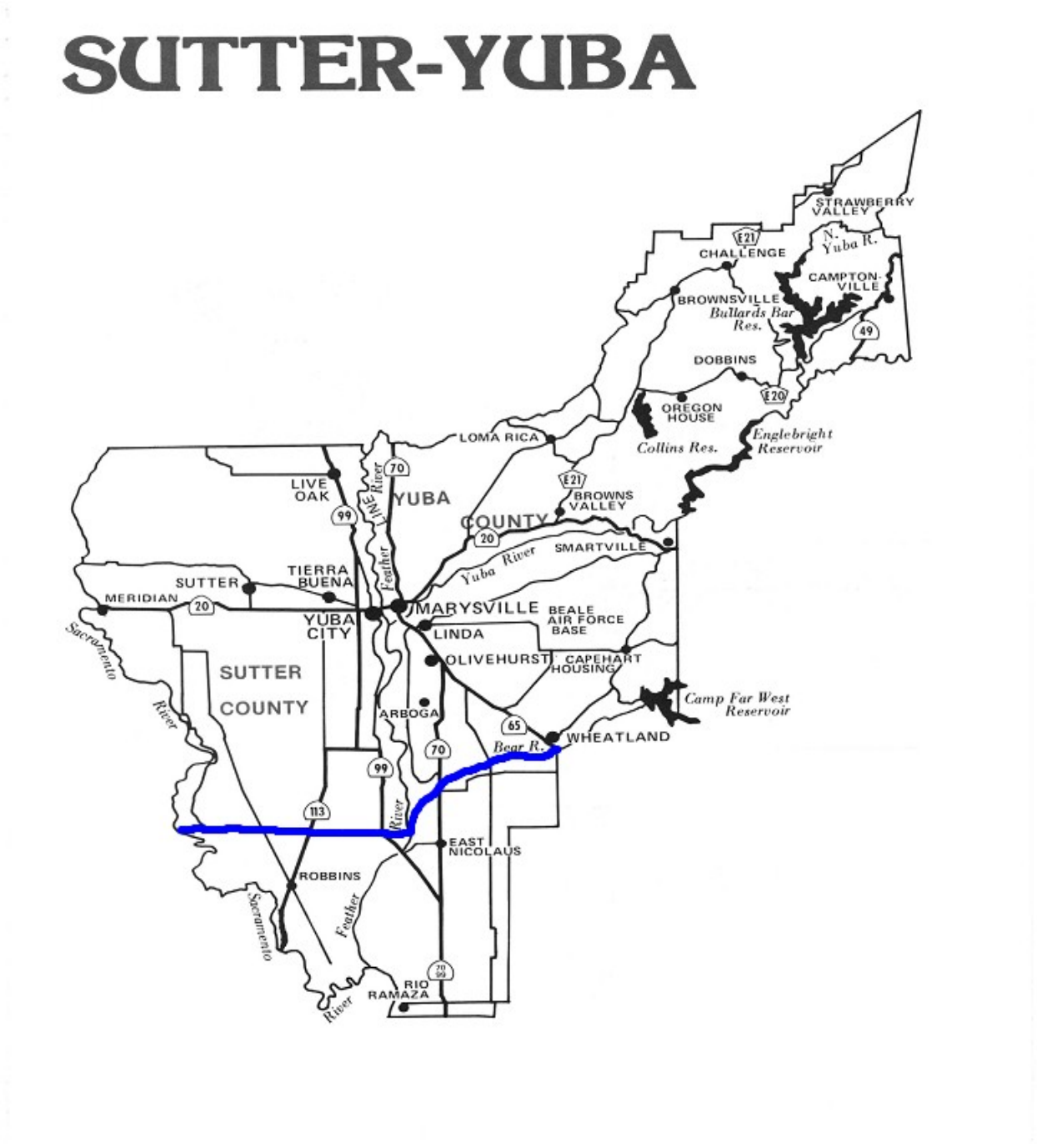
I.7 **DETERMINATION OF COMPLIANCE**:

a. Within 240 days (or within 180 days for any application filed pursuant to Sections 25540 through 25540.6 of the Public Resources Code) of an AFC having been accepted the APCO shall issue and submit to the CEC a Determination of Compliance or, if such a determination cannot be issued, shall so inform the CEC.

b. A Determination of Compliance shall confer the same rights and privileges as an Authority to Construct only when and if the CEC approves the AFC, and the CEC certificate includes all conditions of the Determination of Compliance.

I.8 **PERMIT TO OPERATE**: Any applicant receiving a certificate from the CEC pursuant to this section and who is in compliance with all conditions of the certificate shall be issued a Permit to Operate by the APCO.

FIGURE 1


SUTTER-YUBA
STRAWBERRY VALLEY
N. Yuba R.
CHALLENGE
CAMPTONVILLE
BROWNSVILLE
Bullards Bar Res.
DOBBINS
OREGON HOUSE
Collins Res.
Englebright Reservoir
LOMA RICA
LIVE OAK
YUBA
COUNTY
BROWNS VALLEY
SMARTVILLE
Yuba River
Feather River
TIERRA BUENA
SUTTER
MERIDIAN
MARYSVILLE
BEALE AIR FORCE BASE
YUBA CITY
LINDA
OLIVEHURST
CAPEHART HOUSING
SUTTER
COUNTY
ARBOGA
Camp Far West Reservoir
WHEATLAND
Bear R.
Sacramento River
EAST NICOLAUS
ROBBINS
RIO RAMAZA

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

RULE 10.4 GENERAL CONFORMITY (Adopted 12/12/94)

The provisions of the Code of Federal Regulations (CFR), title 40, chapter I, subchapter C, Parts 6 and 51 in effect November 7, 1994 are made a part of The Rules and Regulations of the Feather River Air Quality Management District.

RULE 10.9 **RICE STRAW EMISSION REDUCTION CREDITS AND BANKING**

(Adopted 4/6/2009; Amended 10/6/2014)

A. GENERAL

A.1 **PURPOSE:** The purpose of this rule is to provide a federally recognized procedure for quantifying and certifying rice straw burning emission reductions, and issuing the resulting Emission Reduction Credit (ERC) certificates. This rule provides the only process by which ERC certificates issued for reductions in rice straw burning may be stored for later use to meet federal new source review offset requirements. Once issued in accordance with this rule, the procedures in Rule 10.2 - EMISSION REDUCTION CREDIT AND BANKING shall be used as the administrative mechanism for sources to transfer ERCs to other sources for use as offsets.

A.2 **APPLICABILITY:** The provisions of this rule shall apply to any agricultural operation that grew rice and burned rice straw in the in the Sacramento Federal Nonattainment Area (SFNA) portion of the District during the baseline period.

B. DEFINITIONS

Unless otherwise defined below, the terms used in this rule are the same as defined in District Rule 10.1 - NEW SOURCE REVIEW.

B.1 **Agricultural Burning:** Open outdoor fires used in the growing of crops. For the purpose of this rule, agricultural burning is considered to be a source and such activity requires an agricultural burn permit.

B.2 **Agricultural Burn Permit:** A permit issued by the District, which is required in order to conduct an agricultural burn.

B.3 **Agricultural Operation:** Equipment used exclusively in the growing of agricultural crops or in the commercial raising of fowl or animals.

B.4 **Air Pollution Control Officer (APCO):** The Air Pollution Control Officer of the Feather River Air Quality Management District (District), or his or her designee.

B.5 **Applicant:** For a new application, the owner (or his/her designee) of the parcel. For a re-certification

application, the current owner (or his/her designee) of an existing rice straw burning ERC.

B.6 **Applicant Designee:** The person, company, or entity submitting an application on behalf of the applicant. Such designee shall provide written authorization signed by the applicant to serve as the designee.

B.7 **Banking:** The system of quantifying, certifying, recording, and storing ERCs for future use and transfer. This system shall be called the ERC Bank.

B.8 **Baseline Period:** Calendar years 1988 through 1992.

B.9 **Certified:** ERCs which have been evaluated under the requirements of this rule and other applicable District, State, and Federal Rules and Regulations and which have been granted by the APCO.

B.10 **Emission Reduction Credits (ERCs):** Reductions of actual emissions that are registered with the District in accordance with the requirements of Rule 10.2 - EMISSION REDUCTION CREDIT AND BANKING.

B.11 **Historic Burn Fraction (HBF):** The amount of rice (as a percentage of the amount planted) which was burned during the baseline period. The HBF equals 100%.

B.12 **New Application:** An application submitted in accordance with this rule for which the District has not already issued an ERC for reductions in rice straw burning for a parcel(s) prior to adoption of this rule.

B.13 **Parcel:** A legally identifiable piece of land as registered with a County Assessor’s office for property tax purposes and assigned an Assessor’s Parcel Number (APN).

B.14 **Re-Certification Application:** An application submitted in accordance with this rule for which the District has previously issued an ERC for reductions in rice straw burning for a parcel(s) prior to adoption of this rule.

B.15 **Register:** The document that records all ERC deposits, withdrawals, transfers, and transactions.

B.16 **Restricted Burn List:** A list (maintained by the District) of parcels which have restrictions related to future agricultural burning.

B.17 **Rice Straw Burning:** The intentional open burning of rice straw material. For the purpose of this rule, rice straw burning is considered to be a source and such activity requires an agricultural burn permit.

B.18 **Rice Straw Burning Emission Reductions:** Emission reductions that qualify for banking pursuant to Section 41865 of the California Health and Safety Code.

B.19 **Rice Growing Acreage:** The amount of acreage contained in a parcel that was used for the growing of rice during the baseline period.

B.20 **Surplus:** The amount of emission reductions that are, at the time of generation of an ERC, not otherwise required by federal, state, or local law, not required by any legal settlement or consent decree, and not relied upon to meet any requirement FRAQMD related to the California State Implementation Plan (SIP). However, emission reductions required by a state statute that provides that the subject emission reductions shall be considered surplus may be considered surplus for purposes of this rule if those reductions meet all other requirements of this section. Examples of federal, state, and local laws, and of SIP-related requirements, include, but are not limited to, the following:

a. The federally-approved California SIP;
b. Other adopted State air quality laws and regulations not in the SIP, including but not limited to, any requirement, regulation, or measure that:
    1. the District or the State has included on a legally-required and publicly-available list of measures that are scheduled for adoption by the District or the State in the future; or
    2. is the subject of a public notice distributed by the District or the State regarding an intent to adopt such revision;
c. Any other source or source-category specific regulatory or permitting requirement, including, but not limited to, Reasonable Available Control Technology (RACT), New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Best Available Control Measures (BACM), Best Available Control Technology (BACT), and the Lowest Achievable Emission Rate (LAER); and
d. Any regulation or supporting documentation that is required by the federal Clean Air Act but is not

contained or referenced in 40 Code of Federal Regulations(CFR) Part 52, including but not limited to: assumptions used in attainment and maintenance demonstrations (including Reasonable Further Progress demonstrations and milestone demonstrations), including any proposed control measure identified as potentially contributing to an enforceable near-term emissions reduction commitment; assumptions used in conformity demonstrations; and assumptions used in emissions inventories.

C. STANDARDS

C.1 **DETERMINATION IF A PARCEL IS ELIGIBLE:** A particular parcel qualifies to generate ERCs under this rule if the following requirements are met:

a. The parcel is located in the Sacramento Federal Nonattainment Area (SFNA); and
b. Rice straw burning occurred on the parcel during the baseline period.

C.2 **DETERMINATION OF AVAILABLE ACREAGE:** The available acreage for generating ERCs shall be determined by adding all of the rice growing acreage of a FRAQMD applicant's eligible parcels and multiplying by 75% x HBF. In no case shall the total available acreage for the entire District exceed 36,228 acres. In the event that the District receives applications for which the total available acreage exceeds 36,228 acres, the District shall lower the amount of available acreage for each application in accordance with Section D.4.

C.3 **DETERMINATION OF ANNUAL EMISSION REDUCTIONS AVAILABLE:** The amount of annual emission reductions available shall be determined by multiplying the available acreage times the applicable emission factor in the following table:

Pollutant	**Emission Factor** (lbs/acre)
Volatile Organic Compounds (VOC)	14.1
Nitrogen Oxides (NOx)	15.6
Carbon Monoxide (CO)	172.2

Particulate Matter less than 10 microns (PM_{10})	18.9
Sulfur Oxides (SOx)	3.3

C.4 **DETERMINATION OF QUARTERLY EMISSION REDUCTIONS AVAILABLE:** The emission reductions shall be quantified on a calendar quarter basis. The following percentages shall be used to determine the amount of emission reductions in each calendar quarter:

Calendar Quarter	Percentage
First Quarter	34%
Second Quarter	22%
Third Quarter	6%
Fourth Quarter	38%

C.5 **PRIORITY RESERVE ADJUSTMENT:** Before the APCO may issue an ERC, the calculated emission reductions shall be reduced by 5%. Emission reductions captured by this adjustment shall pass to the District's Priority Reserve Bank.

C.6 **DEED RESTRICTION:** Prior to the issuance of an ERC, a deed restriction shall be placed on the parcel or group of contiguous parcels for which ERCs will be granted and a copy provided to the District. The deed restriction shall prohibit agricultural burning on the parcel consistent with the ERC.

C.7 **RESTRICTED BURN LIST:** Prior to the issuance of an ERC, the District shall place the parcel or group of contiguous parcels on the restricted burn list. In each calendar year, no agricultural burn permit may be issued for greater than 25% of the rice growing acreage of any parcel listed on the restricted burn list.

C.8 **BURNING PROHIBITION**: No person shall conduct agricultural burning on more than 25% of the rice growing acreage of a parcel which has received an ERC certificate pursuant to the provisions of this rule. In addition, applicants must comply with California Health & Safety Code, Section 41865.

D. ADMINISTRATIVE REQUIREMENTS

D.1 **APPLICATION FILING DEADLINE:** All applications to obtain rice straw ERC certificates in accordance with this rule shall be submitted no later than October 6, 2009 or upon

approval of this rule by the United States Environmental Protection Agency (US EPA) into the California SIP, whichever is later. Applications submitted after October 6, 2009 or after approval of this rule by the US EPA into the SIP, whichever is later, shall not be eligible for ERCs under this rule.

D.2 **APPLICATION REQUIREMENTS - NEW APPLICATIONS:** The applicant shall submit one application for each parcel or for each set of contiguous parcels. The application shall contain the following information:

a. List of each parcel included in the application, including APN and any owner's designation or identifier.
b. The acreage of each parcel that was used to grow rice during the baseline period, and documentation of such acreage.
c. Documentation that rice straw burning occurred on the acreage of each parcel (identified above) during the baseline period. Examples of acceptable documentation include, but are not limited to, copies of a District burn permit, log books, pictures, or other District approved verifiable records. In the event that a burn permit or other records are not available, the District may accept a signed affidavit (under penalty of perjury) from the applicant certifying that rice straw on the parcel was burned during the baseline period.
d. A statement of intent to file a deed restriction, as required by Section C.6, for each parcel or for each set of contiguous parcels for which an application is being submitted (A copy of the deed restriction must be provided prior to final issuance of the rice straw ERC certificate).
e. Filing fees for the evaluation and issuance of ERCs in accordance with District Rule 7.11 - ERC BANKING FEE.

D.3 **APPLICATION REQUIREMENTS - RE-CERTIFICATION APPLICATIONS:** The applicant shall submit one application for each existing ERC certificate. In addition to the information in Section D.2, prior to re-issuance of the ERC, the applicant must surrender all previous certificates issued for rice straw burning on the parcel or group of contiguous parcels.

D.4 **AVAILABLE ACREAGE ADJUSTMENT**: In the event that the District receives applications in which the requested available acreage totals to more than 36,228 acres, the District shall lower the percentage available as follows:

a. The re-certification applications meeting the criteria of this rule shall get full credit on their acreage.

b. The applications with verifiable burn records will have second priority. If the total available acreage for all these applications along with the recertification applications does not exceed 36,228 acres, these applications will get full credit. If the total of all these applications along with the recertification applications exceeds 36,228 acres, these applications shall be adjusted proportionally so that the total acreage for which all rice straw burning ERCs are issued does not exceed 36,228 acres.
c. For all remaining applications with affidavits for burn documentation, the amount of rice straw acreage determined to be available shall be adjusted proportionally so that the total acreage for which all rice straw burning ERCs are issued does not exceed 36,228 acres.

D.5 **APPLICATION PROCESSING PROCEDURES:**

a. **COMPLETE APPLICATION:** The APCO shall determine whether the application is complete not later than 30 days after receipt of the application for ERC certificates. If the APCO determines that the application is not complete, the applicant shall be notified in writing of the decision specifying the information required. If the specified information is not submitted within 30 days the application shall be canceled by the APCO.

b. **ADDITIONAL INFORMATION:** Upon receipt of additional information for an incomplete application, a new 30 day period to determine completeness shall begin. During the processing of the application, the APCO may request an applicant to clarify, amplify, correct, or otherwise supplement the information submitted in the application.

c. **PRELIMINARY DECISION:** Following acceptance of an application as complete, the APCO 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 reduction should be certified as ERCs. The decision should be supported by a succinct written analysis.

d. **PUBLICATION AND PUBLIC COMMENT:** Within 10 calendar days following a preliminary decision, the APCO shall publish, in at least one newspaper of general circulation in the District, a notice stating the preliminary decision of the APCO, noting how the

pertinent information can be obtained, and inviting written public comment for a 30 day period following the date of publication.

e. **DEED RESTRICTION:** Within 90 calendar days of the public notice being published, the applicant shall submit a final copy of the legal deed restriction for all parcels upon which the ERC is based. The ERC shall not be issued prior to this submittal.

f. **PUBLIC INSPECTION:** The APCO shall make available for public inspection at the District office the information submitted by the applicant and the APCO's analysis no later than the date the notice of the preliminary decision is published, pursuant to Section D.5.d. All such information shall be transmitted to the California Air Resources Board and the US EPA regional office, and to any party which requests such information no later than the date of publication.

g. **FINAL ACTION:** After considering all written comments, the APCO shall take final action on the applications within 180 days after the application filing deadline, as listed in Section D.1.

D.6 **VIOLATIONS:** Failure to comply with any provision or restriction of this rule shall be considered a violation of this rule.

E. MONITORING AND RECORDS

E.1 **BURN RECORDS:** For any parcel or group of contiguous parcels for which a rice straw ERC certificate has been issued, the initial ERC holder or current land owner shall keep records of the amount of acres, crop type, and burning that has occurred during the previous 5 years.

F. PROGRAM EVALUATION

Within two (2) years after adoption of this rule, the District shall evaluate the program and submit an evaluation report to the US EPA. The report shall include a discussion of the total number of applications approved, total acreage subject to this rule, and total amount of ERCs issued.

RULE 10.10 – Prevention of Significant Deterioration

A. PURPOSE (Adopted 8/1/2011)

The prevention of significant deterioration (PSD) program is a construction permitting program for new major facilities and major modifications to existing major facilities located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. The intent of this Rule is to incorporate the federal PSD rule requirements into the District's Rules and Regulations by incorporating the federal requirements by reference.

B. APPLICABILITY (Adopted 8/1/2011)

The provisions of this rule shall apply to any source and the owner or operator of any source subject to any requirement under 40 Code of Federal Regulations (CFR) Part 52.21 as incorporated into this rule.

C. INCORPORATION BY REFERENCE (Adopted 8/1/2011)

Except as provided below, the provisions of Title 40 of the Code of Federal Regulations (CFR) Part 52.21, in effect August 1, 2011 are incorporated herein by reference and made part of the Rules and Regulations of the Feather River Air Quality Management District.

C.1 The following subsections of 40 CFR Part 52.21 are excluded: (a)(1), (b)(55-58), (f), (g), (p)(6-8), (q), (s), (t), (u), (v), (w), (x), (y), (z) and (cc).

D. EXEMPTION, GREENHOUSE GAS AIR QUALITY ANALYSES: (Adopted 8/1/2011)

Greenhouse gas emissions, as defined in Rule 10.11, PERMITTING REQUIREMENTS FOR STATIONARY SOURCES EMITTING GREENHOUSE GASES, shall not be subject to the requirements of subsections (k) or (m) of 40 CFR Part 52.21.

E. DEFINITIONS (Adopted 8/1/2011)

Unless otherwise defined below, the terms used in this rule are defined in 40 CFR Part 52.21(b):

E.1 **Administrator:** The term "administrator" means:

a. "Federal Administrator" in 40 C.F.R. 52.21(b)(17), (b)(37)(i), (b)(43),

(b)(48)(ii)(c), (b)(50)(i), (b)(51), (l)(2) and (p)(2); and

b. "Air Pollution Control Officer (APCO)" elsewhere, as defined in District Rule 1.1, DEFINITIONS.

E.2 **Allowable Emissions:** The definition of "allowable emissions" contained in 40 CFR, Part 52.21(b)(16), is revised so that:

a. The phrase "unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both" shall read, "unless the source is subject to enforceable limits which restrict the operating rate, or hours of operation, or both."

b. Paragraph (iii) shall read as follows: "The emissions rate specified as an enforceable permit condition, including those with a future compliance date."

E.3 **Paragraph (q):** The phrase "paragraph (q) of this section" in 40 CFR 52.21(p)(1) shall read as follows: "the public notice and comment provisions of Rule 10.1, NEW SOURCE REVIEW".

E.4 **Potential to Emit:** The definition of "potential to emit" contained in 40 CFR, Part 52.21(b)(4), is revised so that the phrase "is federally enforceable" shall read "is federally enforceable or enforceable as a practical matter.

F. REQUIREMENTS (Adopted 8/1/2011)

F.1 An owner or operator must obtain a PSD permit pursuant to this Rule before beginning actual construction of a new major stationary source, a major modification, or a Plantwide Applicability Limitation (PAL) major modification, as defined in 40 CFR 52.21(b).

F.2 Notwithstanding the provisions of any other District Rule or Regulation, the APCO shall require compliance with this rule prior to issuing a federal PSD permit as required by Clean Air Act (CAA) Section 165.

F.3 The applicant shall pay the applicable fees specified in Regulation VII, FEES.

G. ADMINISTRATIVE REQUIREMENTS (Adopted 8/1/2011)

G.1 **Public Participation:** Prior to issuing a federal PSD permit pursuant to this rule and after receipt of a complete application, the APCO shall:

a. Make a preliminary determination whether construction should be approved with conditions or disapproved.
b. Make available at the District office a copy of all materials the applicant submitted, a copy of the preliminary determination, a copy of the proposed permit and a copy or summary of other materials, if any, considered in making the preliminary determination.
c. Notify the public, by advertisement in a newspaper of general circulation in the District, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and of the opportunity for written public comment.
d. Send a copy of the notice of public comment to the applicant, EPA Region 9, any persons requesting such notice and any other interested parties such as: Any other State or local air pollution control agencies, the chief executives of the city and county where the source would be located; any comprehensive regional land use planning agency, and any State, Federal Land Manager, or Indian Governing body whose lands may be affected by emissions from the source or modification.
e. Provide opportunity for a public hearing for persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations, if in the APCO's judgment such a hearing is warranted.
f. Consider all written comments that were submitted within 30 days after the notice of public comment is published and all comments received at any public hearing(s) in making a final decision on the approvability of the application and make all comments available for public inspection in the same locations where the District made available preconstruction information relating to the proposed source or modification.
g. Make a final determination whether construction should be approved with conditions or disapproved.

h. Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the District made available preconstruction information and public comments relating to the source.