

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report for

**Proposed Amended Rule 222 - Filing Requirements for Specific Emission Sources Not
Requiring a Written Permit Pursuant to Regulation II**

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EXECUTIVE SUMMARY

Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II was adopted on September 11, 1998 to help simplify and streamline the permitting process by reducing the number of permit applications required by AQMD. The rule identifies specific types of equipment that have negligible emissions and minimal toxic health risks. Operators of such equipment are required to file information with AQMD which includes a description of the equipment, facility information, and other pertinent data for estimating emissions and determining compliance. Compliance is achieved for such equipment by meeting existing rule and recordkeeping requirements. The implementation of Rule 222 has resulted in a filing program for low-emitting equipment as an alternative to the conventional permitting process. Currently, Rule 222 includes four equipment categories: (1) negative air machines; (2) charbroilers; (3) boilers/steam generators and process heaters with rated heat input capacity from 1,000,000 up to and including 2,000,000 btu/hr; and (4) oil production well groups.

Proposed Amended Rule (PAR) 222 will add new equipment categories to the filing program to incorporate certain requirements in AQMD Rule 219 (as amended on July 14, 2006 and June 1, 2007) and in the California Air Resources Board (CARB) Airborne Toxic Control Measure for Stationary Compression Ignition Engines (ATCM), effective October 18, 2007. The following additional equipment filing categories are being proposed for inclusion in Rule 222:

- Printing and related coating and/or laminating equipment and associated dryers and curing equipment exempt from written permit pursuant to Rule 219(h)(1)(E);
- Roller to roller coating systems that create 3-dimensional images exempt from written permit pursuant to Rule 219(j)(13)(C);
- Coating or adhesive application or laminating equipment exempt from written permit pursuant to Rule 219(l)(6)(F);
- Drying equipment such as flash-off ovens, drying ovens, or curing ovens associated with coating or adhesive application, or laminating equipment exempt from written permit pursuant to Rule 219(l)(11)(F);
- Certain equipment, processes, or operations emitting in aggregate four tons or more of VOCs per year at a single facility, and having no written permit from the District for any other equipment, processes or operations, as specified in Rule 219(s)(3);
- Stationary or portable emergency diesel-fired internal combustion engines rated greater than or equal to 50 brake horsepower (bhp) at any agricultural facility or source exempt from written permit requirements pursuant to Rule 219(q)(1);
- Stationary or portable non-emergency diesel-fired internal combustion engines rated greater than or equal to 50 brake horsepower (bhp) at agricultural sources

with actual emissions less than the amounts listed in the table pursuant to Rule 219(q)(2); and

- Existing (installed on or before 7/7/2006) gasoline storage and dispensing equipment with a capacity greater than or equal to 251 gallons at agricultural sources.

Staff is also proposing to modify the rule applicability to include certain agricultural engines subject to the CARB ATCM. PAR 222 will also add new definitions and other clarifying rule language.

BACKGROUND

The Air Pollution Control Streamlining Act of 1992 (Article 1.5 of Chapter 4 of the Health and Safety Code) requires air pollution control districts to “institute new, efficient procedures which will assist businesses in complying with regional, state, and federal air quality laws in an expedited fashion, without reducing protection of public health and the environment.”

On September 11, 1998, the AQMD Governing Board adopted Rule 222 as an alternative to permitting commonly used equipment that emits small amounts of air contaminants. The rule establishes a filing program wherein operators of such equipment are required to submit to AQMD a description of the equipment and data for estimating emissions and determining compliance with applicable rules. The filing program under Rule 222 reduces equipment permit and renewal fees for the operator, is less burdensome than the conventional permit process, and also decreases the permitting workload at AQMD. Subsequent amendments to the rule added other equipment categories that emit minimal air emissions.

Currently, Rule 222 includes four equipment categories:

- Negative air machines used for asbestos removal;
- Charbroilers;
- Boilers/steam generators and process heaters with a rated heat input capacity from 1,000,000 up to and including 2,000,000 btu/hr, and
- Oil Production Well Groups.

Rule 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II, identifies equipment and processes that are exempt from AQMD’s permitting requirements. The last amendments to Rule 219 (July 2006 and June 2007) included new permitting exemptions for certain equipment and processes that use ultra-low VOC materials, and with total VOC emissions not exceeding one ton per calendar year, provided a filing pursuant to Rule 222 is submitted to AQMD for such equipment and processes. Ultra-low VOC materials include inks, coatings, adhesives, fountain solutions, polyester resin and gel coat, and associated solvents (excluding clean-up solvents) that

contain no more than 50 grams of VOC per liter of material, and clean-up solvents containing 25 grams or less of VOC per liter of material.

In addition, Rule 219(s)(3) also requires filing from facilities that have no AQMD written permits, but emit 4 tons or more of aggregate VOC emissions per year from specific equipment or processes as follows:

1. Printing operations individually exempted under Rule 219(h)(1) and (h)(7);
2. Coating or adhesive or laminating equipment exempted under Rule 219(l)(6) and (l)(10); and
3. Hand application of solvents for cleaning purposes exempted under Rule 219(o)(4).

During the July 2006 public hearing of Rule 219, the Governing Board directed staff to establish an alternative permitting process for agricultural sources for: 1) existing or new emergency internal combustion engines; 2) existing non-emergency internal combustion engines; and 3) existing gasoline storage and dispensing equipment that are not currently subject to written permit. In addition, the CARB adopted an ATCM for Stationary Compression Ignition Engines that took effect October 18, 2007, which also requires registration of diesel-fueled internal combustion engines used at agricultural operations.

The proposed amendments to Rule 222 support the filing and registration requirements for specific equipment pursuant to Rule 219 and the CARB ATCM for Stationary Compression Ignition Engines.

REGISTRATION (FILING) REQUIREMENTS PURSUANT TO CARB AIRBORNE TOXIC CONTROL MEASURE (ATCM)

The CARB amended the ATCM for Stationary Compression Ignition Engines on October 18, 2007 which was codified in the California Code of Regulations, Title 17, sections 93115 – 93115.15. CARB ATCM sections 93115.3(a) and 93115.8(c) require all agricultural stationary diesel-fired internal combustion engines with greater than 50 bhp rating to be registered with local air districts. Portable agricultural engines owned or operated by the agricultural source owner/operator are also subject to the stationary diesel engine ATCM, and are subject to the registration requirement. Engines owned by rental/leasing companies are subject to the Portable Diesel Engine ATCM, but do not require registration with local air districts. Examples of commonly used diesel-fueled agricultural engines regulated by the ATCM include well and booster pump engines used to water crops, and generator sets that provide power for greenhouses or animal housing (e.g. light, heating, air conditioning) or for equipment used in agriculture.

The proposed amendment to Rule 222 would establish a filing program for agricultural sources to support the CARB ATCM registration requirement for agricultural stationary diesel-fired internal combustion engines. Furthermore, AQMD's Proposed Rule 1471 - Requirements for Stationary Diesel-Fueled Internal Combustion Engines and Other

Compression Ignition Engines Used in Agricultural Operations - will establish provisions for specific engines to comply with the other requirements of the CARB ATCM.

Historically, agricultural engines have not been subject to local air district permitting or registration programs. In order to implement the CARB ATCM registration requirements, the AQMD will require a minimum set of information about the engine. To ensure that this information is available, the CARB ATCM contains a requirement that all stationary diesel agricultural engines be registered with the local district. Under the registration program, engine owners/operators would be required to submit registration information for each new and in-use engine to the AQMD and provide at the minimum:

- Contact information of the engine owner/operator;
- Make, model, year, and horsepower of the engine;
- Annual hours of operation and fuel usage of the engine;
- Location of the engine; and
- Proximity of the engine to homes, schools, and hospitals.

The AQMD would have the authority to assess fees to assist with implementation of the registration (filing) program, as well as general implementation and enforcement of the ATCM. Accordingly, the ATCM requires that owner/operators pay fees assessed for this purpose.

LEGISLATIVE AUTHORITY

Chapter 6 of the California Health and Safety (H&S) Code section 40701(g) grants air districts the power “to require any owner or operator of any air pollution emission source, except a noncommercial vehicular source, to provide (1) a description of the source, and (2) disclosure of the data necessary to estimate the emissions of pollutants for which ambient air quality standards have been adopted, or their precursor pollutants.”

H&S Code section 40522.5 authorizes the district to adopt “a schedule of fees to be assessed on area wide or indirect sources of emissions which are regulated, but for which permits are not issued by AQMD, to recover the costs of district programs related to these sources.”

RULE PROPOSAL

As discussed above, the previous amendments to Rule 219 require certain equipment or processes exempt from AQMD permit requirements to submit filing application under the Rule 222 filing program. In addition, the CARB ATCM also requires registration with local air districts for certain agricultural diesel-fueled engines. However, Rule 222 currently does not include such equipment in the filing program. In order to support filing requirements for Rule 219 and the CARB ATCM, staff is proposing to modify the

rule's applicability to include new emission sources that are exempt from written permit pursuant to Rule 219, and agricultural diesel-fueled engines subject to the CARB ATCM. PAR 222 will add new equipment categories to the Rule 222 filing program as follows:

1. Printing and related coating and/or laminating equipment and associated dryers and curing equipment exempt from written permit pursuant to Rule 219(h)(1)(E)

Filing under Rule 222 is a condition for exemption from written permit under Rule 219 for the above equipment category. Staff's proposal will allow filing for this equipment category that uses inks, coatings and adhesives, fountain solutions, and associated solvents containing fifty (50) grams or less of VOC per liter of material, and all cleanup solvents containing twenty five (25) grams or less of VOC per liter of material, and the total quantity of VOC emissions from the equipment do not exceed one ton per calendar year. However, if the above equipment already meets any of the permit exemption criteria identified in Rule 219(h)(1)(A) thru (D), then filing under Rule 222 will not be required for the said equipment.

For example, if the above equipment meets the 50 grams per liter and 25 grams per liter of material VOC limit criteria and emits no more than 3 pounds per day or 66 pounds per calendar month of VOC emissions, then the equipment is not required to submit filing under Rule 222 to qualify for the permit exemption since the equipment already qualifies for the 3 pounds per day or 66 pounds per month exemption limit under Rule 219(h)(1)(A).

- Fiscal Impact: Expected to be minimal. Currently, the filing and annual operating fee per equipment is \$163.71. Staff estimates there are three to five units in this category.

2. Roller to roller coating systems that create 3-dimensional images exempt from written permit pursuant to Rule 219(j)(13)(C)

Filing under Rule 222 is a condition for exemption from written permit under Rule 219 for the above equipment category. This proposal establishes a Rule 222 filing for this equipment category that uses coatings containing fifty (50) grams or less of VOC per liter of material, and using exclusively clean-up solvents containing twenty five (25) grams or less of VOC per liter of material, and the total quantity of VOC emissions from the equipment do not exceed one ton per calendar year. Filing is not required if the above roller to roller coating system already meets any of the exemption criteria specified in Rule 219(j)(13)(A) or (B).

For example, if the above equipment meets the 50 grams per liter and 25 grams per liter of material VOC limit criteria and emits no more than 3 pounds per day or 66 pounds per calendar month of VOC emissions, then the equipment is not required to submit filing under Rule 222 to qualify for the

permit exemption since the equipment already qualifies for the 3 pounds per day or 66 pounds per month exemption limit under Rule 219(j)(13)(A).

- Fiscal Impact: Expected to be minimal. Currently, the filing and annual operating fee per equipment is \$163.71. Staff estimates there is only one piece of equipment currently installed and operating in this category.

3. Coating or adhesive application or laminating equipment such as air, airless, air-assisted airless, high volume low pressure (HVLV) and electrostatic spray equipment, and roller coaters, dip coaters, vacuum coaters, flow coaters and spray machines exempt from written permit pursuant to Rule 219(l)(6)(F)

The above equipment category is exempt from written permit under Rule 219 only if Rule 222 filing is submitted for the equipment. Staff's proposal will allow filing for this equipment category that uses coatings, adhesives, polyester resin and gel coat type materials and associated solvents (excluding clean-up solvents) containing fifty (50) grams or less of VOC per liter of material, and all clean-up solvents containing twenty five (25) grams or less of VOC per liter of material, and the total quantity of VOC emissions from the equipment do not exceed one ton per calendar year. Filing is not required for the same equipment that already meets any of the exemption criteria in Rule 219(l)(6)(A) thru (E).

For example, if the equipment meets the 50 grams per liter and 25 grams per liter of material VOC criteria and emits no more than 3 pounds per day or 66 pounds per calendar month of VOC emissions, then the equipment is not required to submit filing under Rule 222 to qualify for the permit exemption since the equipment already falls under the 3 pounds per day or 66 pounds per month exemption limit under Rule 219(l)(6)(A).

- Fiscal Impact: Expected to be minimal. Currently, the filing and annual operating fee per equipment is \$163.71. Staff estimates there are three to five units in this category.

4. Drying equipment such as flash-off ovens, drying ovens, or curing ovens associated with coating or adhesive application or laminating equipment exempt from written permit pursuant to Rule 219(l)(11)(F)

This proposal establishes a Rule 222 filing application for the above equipment that use coatings, adhesives, polyester resin and gel coat type materials and associated solvents (excluding clean-up solvents) containing fifty (50) grams or less of VOC per liter of material, and all cleanup solvents containing twenty five (25) grams or less of VOC per liter of material, and the total quantity of VOC emissions from the equipment do not exceed one ton per calendar year. Filing is not required if the equipment already meets any of the exemption criteria in Rule 219(l)(11)(A) thru (E).

For example, if the equipment meets the 50 grams per liter and 25 grams per liter of material VOC criteria and emits no more than 3 pounds per day or 66 pounds per calendar month of VOC emissions, then the equipment is not required to submit filing under Rule 222 to qualify for the permit exemption since the equipment already falls under the 3 pounds per day or 66 pounds per month exemption limit under Rule 219(l)(11)(A).

- Fiscal impact: Expected to be minimal. Currently, the filing and annual operating fee per equipment is \$163.71. Staff estimates there are three to five units in this category.

5. Equipment, processes, or operations located at a single facility, holding no written permit for any other equipment from AQMD, and emitting four tons or more of VOCs per year for certain categories of equipment, processes or operations specified in Rule 219(s)(3)

Rule 219 currently exempts certain equipment, processes, or operations from written permit that, individually, are small sources of emissions. At a single facility, however, activities from these equipment, processes, or operations in aggregate could result in a significant source of emissions. Rule 219(s)(3) requires that facilities obtain a Rule 222 filing for certain equipment or processes exempt from written permits if their aggregate VOC emissions are four (4) tons or more in any fiscal year (July 1 to June 30). These equipment categories or processes are as follows:

- a) Printing operations individually exempted under Rule 219(h)(1) and (h)(7);
- b) Coating or adhesive application or laminating equipment and devices individually exempted under Rule 219(l)(6) and (l)(10); and
- c) Hand applications (use of rags, daubers, swabs, squeeze bottles, etc) of VOC containing solvents for cleaning purposes individually exempted under Rule 219 (o)(4).

PAR 222 would add a filing category for equipment or processes meeting the criteria specified in Rule 219(s)(3). It should be noted that the AQMD Annual Emissions Reporting collects emission inventory information for facilities that have at least one written permit from the AQMD. At this time, the number of facilities with no AQMD permits or filings, which individually have the above-described equipment, processes or operations and with VOC emissions exceeding 4 tons per year is unknown.

- Fiscal Impact: Expected to be minimal. Currently, the filing and annual operating fee per equipment is \$163.71. Staff estimates there are three to five units in this category.

6. Diesel engines rated greater than or equal to 50 bhp used in agricultural operations

The CARB ATCM requires owners or operators of all stationary and portable diesel agricultural engines (>50 bhp rating) to register the engines with the local air districts. The purpose of this program is to collect information about the engines that local air districts will need in order to implement the ATCM.

In addition to the CARB ATCM, the Governing Board also directed staff during the July 2006 Public Hearing of Rule 219 to establish an alternative permitting process for existing or new emergency internal combustion engines, existing non-emergency internal combustion engines, and existing gasoline storage and dispensing equipment that are not currently subject to written permits at agricultural operations.

To incorporate the CARB ATCM and the Governing Board directive, staff is proposing to add a filing (registration) category in Rule 222 to include the following:

- a) Diesel-fueled stationary engines (including portable) located at agricultural sources with actual emissions less than the amount shown in Rule 219(q)(2), excluding fugitive dust and emissions from soil amendments and fertilizers. The amounts as listed in the table in Rule 219(q)(2) are one-half of the Title V threshold limits.

Note that stationary engines located at agricultural sources with potential to emit air contaminants of a magnitude that would be subject to Title V or with actual emissions equal to or greater than one-half of the Title V thresholds are subject to written permits. Portable agricultural engines owned or operated by an agricultural source owner/operator are considered part of the agricultural stationary source, unless the engine is owned by a rental/leasing company. Portable engines owned by rental/leasing companies are subject to the CARB Portable Diesel Engine ATCM.

- b) Emergency diesel-fueled engines located at any agricultural sources.

CARB ATCM section 93115.8(c)(2) specifies the registration information requirements for agricultural engines. Under the registration program, engine owners/operators would be required to submit registration information to the AQMD and provide at the minimum the following information:

- a) Contact information of the engine owner/operator;
- b) Make, model, year, and horsepower of the engine;
- c) Annual hours of operation and fuel usage of the engine;
- d) Location of the engine; and
- e) Proximity of the engine to homes, schools, and hospitals.

- **Fiscal Impact:** Staff estimates that additional stationary (non-emergency) engines at agricultural operations number in the range of 40 to 90 units. Estimated number of emergency engines range from

100 to 150 units. The filing and annual operating fee is \$ 163.71. Total revenue from annual operating fees from these additional filings is estimated to be about \$39,000.

7. Existing gasoline storage and dispensing equipment with capacity equal to or greater than 251 gallons and located at agricultural operations

As previously stated, the Governing Board in July 2006 directed staff to establish an alternative permitting process for certain existing gasoline storage and dispensing equipment that are not currently subject to written permits at agricultural operations. Staff is proposing a filing category for existing gasoline storage and dispensing equipment, with capacity greater than or equal to 251 gallons. Existing equipment refers to gasoline storage and dispensing equipment installed on or before July 7, 2006. Equipment installed after July 7, 2006 at agricultural operations and with capacity greater than 251 gallons is subject to permit requirements, and will not require filing in PAR 222.

- **Fiscal Impact:** Expected to be minimal. Gasoline storage tanks at the majority of the agricultural operations are less than 251 gallons in capacity. Only one facility has a gasoline storage tank with more than 251 gallon capacity, and has received written permit from AQMD. Currently, the filing and annual operating fee per equipment is \$163.71. Staff estimates there are three to five units in this category.

Staff is also proposing to add new definition and clarifying language for the following:

- Agricultural Operations;
- Agricultural Diesel-Fueled Engine;
- Boiler or Steam Generator; and
- Process Heater

COST

Staff believes that there are few facilities that may require filings under this proposal. Based on current filing and annual operating fees of \$163.71 and a total of 266 units estimated to be included in the filing program, the total annual cost of PAR 222 to the affected facilities is about \$44,000.

INCREMENTAL COST EFFECTIVENESS

Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis of potential control options for rules which would achieve the emission reduction objective relative to Ozone, CO, SO_x, NO_x, and their precursors. Incremental cost-effectiveness is defined as the difference between dollar costs of two potential control options divided by the difference in emission reductions potential between those control options. The proposed amendments to Rule 222 do not involve reductions in emissions; therefore, the incremental cost-effectiveness analysis requirement is not applicable.