

RULE 4692 COMMERCIAL CHARBROILING (Adopted March 21, 2002, Amended September 17, 2009.)

1.0 Purpose

The purpose of this rule is to limit VOC and PM-10 emissions from commercial charbroiling. This rule also specifies the administrative, recordkeeping requirements, and the test methods.

2.0 Applicability

This rule applies to owners and operators of commercial cooking operations, preparing food for human consumption. The rule requirements apply to chain-driven charbroilers used to cook meat.

3.0 Definitions

3.1 Catalytic Oxidizer: a control device, which burns or oxidizes smoke and gases from the cooking process to carbon dioxide and water, using an infrastructure coated with a noble metal alloy.

3.2 Chain-driven Charbroiler: a semi-enclosed cooking device with a mechanical chain, which automatically moves food through the device.

3.3 Charbroiler: a cooking device composed of the following three major components: a grated grill, a high-temperature radiant surface and a heat source. The heat source heats the high-temperature radiant surface, which provides the heat to cook the food resting on the grated grill. This includes, but is not limited to broilers, grill charbroilers, flamebroilers and direct-fired barbecues.

3.4 Commercial Cooking Operations: a food handling and preparation facility that primarily serves the general public. Institutional eating facilities, such as school cafeterias, and delicatessen departments of a grocery store and establishments that do no cooking are not considered commercial cooking operations.

3.5 Meat: for the purposes of this rule, includes beef, lamb, pork, poultry, fish, and seafood.

3.6 PM-10: as defined in Rule 1020 (Definitions). For purposes of determining control efficiency, all particulate collected using the test method specified in Section 6.5 shall be considered PM-10.

3.7 VOC: as defined in Rule 1020 (Definitions).

3.8 Weekly: a consecutive seven-day period.

4.0 Exemptions

4.1 Limited Use Exemption

4.1.1 Until January 1, 2011, a chain-driven charbroiler is exempt from the requirements of Section 5.0 provided it is not used to cook 875 pounds of meat or more in any calendar week.

4.1.2 On and after January 1, 2011, a chain-driven charbroiler may be exempt from the requirements of Section 5.0, provided:

4.1.2.1 It is not used to cook 400 pounds of meat or more in any calendar week, or

4.1.2.2 It is not used to cook more than 10,800 pounds in the most recent rolling 12 month period, and the amount of meat cooked every calendar week is less than 875 pounds, and the facility has not previously been required to comply with Section 5.0.

4.1.3 The claim of exemption is based on total quantity of meat cooked on each individual charbroiler at the facility. To claim an exemption, operators must keep records in accordance with Section 6.1.

4.2 Low-Emitting Units

4.2.1 Except for the applicable recordkeeping requirements of Section 6.1, the control requirements in Section 5.0 of this rule shall not apply to units that are shown, using the test method specified in Section 6.5, to emit less than one pound per day of any criteria air pollutant.

4.2.2 The test results shall be used to determine the maximum amount of meat which can be cooked and still be exempt from control requirements.

4.2.3 Operators claiming this exemption shall provide adequate demonstration of emissions using the test method in Section 6.5 and keep records in accordance with applicable provisions of Section 6.1.

5.0 Requirements

5.1 Until January 1, 2011, no person shall operate a chain-driven charbroiler unless it meets the provisions of either Section 5.1.1 or Section 5.1.2.

5.1.1 The chain-driven charbroilers shall be equipped and operated with a catalytic oxidizer as a control device, and the combination charbroiler/catalyst shall be tested in accordance with the test method specified in Section 6.5.

5.1.2 The charbroiler/catalyst is a unit certified for use in the South Coast Air Quality Management District (SCAQMD).

5.2 On and after January 1, 2011, no person shall operate a chain-driven charbroiler unless the chain-driven charbroiler is equipped and operated with a catalytic oxidizer. The catalytic oxidizer shall have a control efficiency of at least 83% for PM-10 emissions and a control efficiency of at least 86% for VOC emissions. Chain-driven charbroiler/catalytic oxidizers combinations certified by SCAQMD before January 1, 2011 shall be deemed compliant for the purposes of this section.

5.3 Alternative control devices or methods may be used, if:

5.3.1 Until January 1, 2011, the alternative control device or alternative control method is demonstrated to be as effective as the catalytic oxidizer in reducing both PM-10 and VOC emissions.

5.3.2 On and after January 1, 2011, it is demonstrated that the alternative control device or alternative control method has a control efficiency of at least 83% for PM-10 emissions and a control efficiency of at least 86% for VOC emissions.

5.4 Control Device Maintenance

Control devices, including catalytic oxidizers, shall be maintained in good working order to minimize visible emissions to the atmosphere and operated, cleaned, and maintained in accordance with the manufacturer's specifications in a maintenance manual or other written materials supplied by the manufacturer or distributor of the control device or charbroiler.

6.0 Administrative Requirements

6.1 Records for Exempt Units

6.1.1 A charbroiler owner or operator, claiming an exemption under Section 4.1, shall keep weekly records the total quantity, in pounds, of meat cooked on each chain-driven charbroiler on the premises.

6.1.2 A charbroiler owner or operator claiming an exemption under Section 4.2 shall keep the following records:

6.1.2.1 The test results used to determine the maximum amount of meat which can be cooked on each charbroiler and still be exempt from control requirements; and

6.1.2.2 On a weekly basis, the total quantity, in pounds, of meat cooked on each charbroiler on the premises.

6.1.3 The applicable records required in Section 6.1.1 and Section 6.1.2 shall be retained on the premises for a period of not less than five years and made available to a District representative upon request.

6.2 Records for Charbroilers Subject to Control Requirements

6.2.1 The owner or operator of a chain-driven charbroiler subject to the control requirements of Section 5.0 shall keep weekly records of the total quantity, in pounds, of meat cooked on each chain-driven charbroiler on the premises.

6.2.2 The records required in Section 6.2.1 shall be retained on the premises for a period of not less than five years and made available to a District representative upon request.

6.3 Alternative Recordkeeping

Owners and operators may request an alternative record keeping method, provided the APCO and EPA have determined, in writing, that the alternative recordkeeping method provides equivalent compliance assurance as the records specified in applicable provisions of Sections 6.1 or 6.2.

6.4 Certification of Control Devices

6.4.1 A chain-driven charbroiler/catalytic oxidizer combination certified by SCAQMD shall be deemed certified for the purpose of this section.

6.4.2 For District certification, the operator shall submit sufficient information to assure that the chain-driven charbroiler and control device combination is adequately designed to meet the minimum emission control efficiency of Section 6.6.

6.4.3 In order for a control device manufacturer to obtain District certification, the manufacturer shall:

- 6.4.3.1 Obtain confirmation from an independent testing laboratory that the chain-driven charbroiler and control device combination has been tested in accordance with the applicable procedure in Section 6.5; and
- 6.4.3.2 Demonstrate that the emission control efficiency of the chain-driven charbroiler and control device combination meets the applicable emission control efficiency of Section 6.6; and
- 6.4.3.3 Obtain a written certification, for the chain-driven charbroiler and control device combination from the APCO, in accordance with Section 6.7.

6.5 Test Methods

6.5.1 Determination of Emissions from Chain-Driven Charbroilers with Catalytic Oxidizers (SCAQMD Method)

The South Coast Air Quality Management District's Protocol – "Determination of Particulate and Volatile Organic Compound Emissions from Restaurant Operations," shall be used to determine the control efficiency of the control device.

6.5.2 Criteria Pollutant

ARB Test Method 100 shall be used to determine criteria pollutant emissions.

6.5.3 Alternative Test Methods

An owner or operator may use an alternative test method for which written approval of the EPA and the APCO has been obtained.

6.5.4 Calculation for Control Efficiency

The control system efficiency shall be calculated using the following equation:

$$\% \text{ Control Efficiency} = [(W_{\text{PM-10, inlet}} - W_{\text{PM-10, outlet}}) / W_{\text{PM-10, inlet}}] \times 100$$

Where:

$W_{\text{PM-10, inlet}}$ = weight of PM-10 at the inlet side of the emission control

system, in mg

$W_{\text{PM-10, outlet}}$ = weight of PM-10 at the outlet side of the emission control system, in mg

6.6 Emission Control Efficiency Limits for Certification

When tested in accordance with Section 6.5, a control device shall have a control efficiency of at least 83% with respect to PM-10 emissions; and at least 86% with respect to VOC emissions.

6.7 Certification Procedure

6.7.1 Each manufacturer who requests certification of their compliant control equipment, shall submit an application to the APCO. The application shall:

6.7.1.1 Provide the following general information:

6.7.1.1.1 Name and address of manufacturer;

6.7.1.1.2 Brand name, trade name, model number;

6.7.1.1.3 Any accoutrements installed to enhance or support the operation of the control equipment; and

6.7.1.1.4 Operation conditions, including the maximum air flow rate;

6.7.1.2 Provide a description of the model being certified;

6.7.1.3 Include a complete certification source test report demonstrating that the control equipment was tested in accordance with procedure in Section 6.5;

6.7.1.4 Include a written statement that the model complies with the emission rate limit and citing the applicable emission rate limit; and

6.7.1.5 Be submitted to the District no more than 90 days after the date of the emissions compliance test conducted in accordance with Section 6.5.

6.7.2 The manufacturer may submit, to the APCO, an approved SCAQMD certification in lieu of conducting duplicative certification tests.

6.7.3 The APCO will approve or deny the request for certification after completing review of the application for certification and source test report.

7.0 Compliance Schedule

7.1 A chain-driven charbroiler that is exempt from the control requirements of Rule 4692 on or before September 17, 2009 and becomes subject to the control requirements of Section 5.0, the charbroiler shall be in full compliance with the applicable rule requirements on and after January 1, 2011.

7.2 Loss of Exemption

Except as noted in Section 7.1, an owner or operator of a charbroiler that loses its exempt status shall comply with the applicable requirements of Sections 5.0 and 6.0 of this rule when the charbroiler is returned to operation after the loss of exemption.

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