

RULE 4692 COMMERCIAL CHARBROILING (Adopted March 21, 2002; Amended September 17, 2009; Amended June 21, 2018)

1.0 Purpose

The purpose of this rule is to limit VOC and PM-10 emissions from commercial charbroiling.

2.0 Applicability

This rule applies to charbroilers used to cook meat at commercial cooking operations.

3.0 Definitions

3.1 Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions)

3.2 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.

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

3.4 Charbroiler: A cooking device composed of a grated grill and a heat source, where food resting on the grated grill cooks as the food receives direct heat from the heat source or a radiant surface.

3.5 Commercial Cooking Operations: any stationary facility that cooks food for human consumption and that engages in the retail sale, or offer for sale, of the cooked food. This includes, but is not limited to, restaurants, dinner houses, cafeterias, catering operations, and hotel or motel food service operations.

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

3.7 Outdoor Operations: commercial cooking operations with under-fired charbroilers that are operated outdoors and which are not connected to an exhaust hood or other form of ventilation system.

3.8 PM-10: as defined in Rule 1020 (Definitions). For purposes of determining control efficiency, all particulate collected using the test method specified in Section 6.6 shall be considered PM-10.

- 3.9 Underfired charbroiler: a charbroiler, other than a chain-driven charbroiler, where the heat source and radiant surface, if any, are positioned at or below the level of the grated grill.
- 3.10 VOC: as defined in Rule 1020 (Definitions).
- 3.11 Weekly: a consecutive seven-day period.

#### 4.0 Exemptions

##### 4.1 Limited Use Exemption

4.1.1 A chain-driven charbroiler is exempt from the requirements of Section 5.0, provided:

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

4.1.1.2 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.

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

4.1.2 An underfired charbroiler shall not be subject to the requirements of Rule 4692, provided a one-time report, as specified in Section 5.2.1, is submitted to the District, and:

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 any 12-month period and the amount of meat cooked every calendar week is less than 875 pounds.

##### 4.2 Low-Emitting Units

4.2.1 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 6.6, to emit less

than one pound per day of any criteria air pollutant. Applicable recordkeeping requirements of Section 6.1 shall apply.

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 6.6 and keep records in accordance with applicable provisions of Section 6.1.

4.3 Outdoor operations shall not be subject to the requirements of this rule.

## 5.0 Requirements

### 5.1 Chain-Driven Charbroilers

5.1.1 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 shall be deemed compliant for the purposes of this section.

5.1.2 Alternative control devices or methods may be used, if 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.

#### 5.1.3 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.

### 5.2 Underfired Charbroilers

5.2.1 No later than January 1, 2019, the owner or operator of an underfired charbroiling operation shall submit a one-time report that includes the following information:

5.2.1.1 Name and location of the commercial cooking operation;

5.2.1.2 Number and size, in cooking surface square feet, of all

underfired charbroilers at the commercial cooking operation;

- 5.2.1.3 Type of fuel used to heat the underfired charbroiler(s);
- 5.2.1.4 Type and quantity, in pounds, of meat cooked on the underfired charbroiler(s) on a weekly basis for the previous 12-month period;
- 5.2.1.5 Daily operating hours of the commercial cooking operation;
- 5.2.1.6 Flowrate (cubic feet per minute) of hood or exhaust system(s) serving each underfired charbroiler; and
- 5.2.1.7 The manufacturer and model of any installed pollution control devices designed for the reduction of particulates, kitchen smoke and/or odor.

#### 5.2.2 Underfired Charbroiler Registration Requirements

The owner of an underfired charbroiler subject to this rule shall register such underfired charbroiler pursuant to Rule 2250 (Permit-Exempt Equipment Registration), in lieu of permitting under the requirements of Rule 2010 (Permits Required).

### 6.0 Administrative Requirements

#### 6.1 Records for Exempt Units

- 6.1.1 A chain-driven 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 chain-driven 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 the District upon request.

## 6.2 Records for Chain-Driven 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 the District upon request.

## 6.3 Records for Underfired Charbroilers Subject to Rule 4692 Requirements

6.3.1 The owner or operator shall keep weekly records of the total quantity, in pounds, for each type of meat cooked on each charbroiler on the premises.

6.3.2 The records required in Section 6.3.1 shall be retained on the premises for a period of not less than five years and made available to the District upon request.

## 6.4 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.

## 6.5 Certification of Control Devices for Chain-Driven Charbroilers

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

6.5.2 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 6.7.

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

- 6.5.3.1 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 6.6; and
- 6.5.3.2 Demonstrate that the emission control efficiency of the chain-driven charbroiler and control device combination meets the applicable emission control efficiency of Section 6.7; and
- 6.5.3.3 Obtain a written certification, for the chain-driven charbroiler and control device combination from the APCO, in accordance with Section 6.8.

6.6 Test Methods

6.6.1 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.

6.6.2 Criteria Pollutant

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

6.6.3 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.

6.6.4 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

6.7 Chain-Driven Charbroiler Control Technology Emission Control Efficiency Limits for Certification

When tested in accordance with Section 6.6, 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.

6.8 Certification Procedure

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

6.8.1.1 Provide the following general information:

6.8.1.1.1 Name and address of manufacturer;

6.8.1.1.2 Brand name, trade name, model number;

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

6.8.1.1.4 Operation conditions, including the maximum air flow rate;

6.8.1.2 Provide a description of the model being certified;

6.8.1.3 Include a complete certification source test report demonstrating that the control equipment was tested in accordance with procedure in Section 6.6;

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

6.8.1.5 Be submitted to the District no more than 90 days after the date of the emissions compliance test conducted in accordance with Section 6.6.

- 6.8.2 The manufacturer may submit, to the APCO, an approved SCAQMD certification in lieu of conducting duplicative certification tests.
- 6.8.3 The APCO will approve or deny the request for certification after completing review of the application for certification and source test report.