

Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

RESCINDED

(1) General Provisions.

- (A) This regulation applies to installations in which fuel is burned for the primary purpose of producing steam, hot water or hot air or other indirect heating of liquids, gases or solids and, in the course of doing so, the products of combustion do not come into direct contact with process materials. Fuels may include for example coal, coke, lignite, coke breeze, gas, fuel oil and wood but do not include refuse. When any products or byproducts of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission limitations shall apply.
- (B) The heat content of solid fuels shall be determined as specified in 10 CSR 10-6.040(2). The heat content of liquid hydrocarbon fuels shall be determined as specified in 10 CSR 10-6.040(3).
- (C) For purposes of this regulation, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack(s). The heat input value used shall be the equipment manufacturer's or designer's guaranteed maximum input, whichever is greater. The total heat input of all fuel burning units at a plant or on a premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.
- (D) The amount of particulate matter emitted shall be determined as specified in 10 CSR 10-6.030(5). Any other method which is in accordance with good professional practice may be used with the consent of the staff director.
- (E) This rule shall not apply to indirect heating sources subject to the provisions of 10 CSR 10-6.070. However, indirect heat input values from sources that are subject to New Source Performance Standards shall

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be used in the calculation of Q (the installation's total heat input).

- (F) Indirect heating sources requiring permits under 10 CSR 10-6.060 that in turn may require particular air pollution control measures to meet more stringent emission limitations than in this rule shall meet the requirements of 10 CSR 10-6.060 Permits Required.

(2) Emission Limitations for Existing Indirect Heating Sources.

- (A) No person may cause, allow or permit the emission of particulate matter from existing indirect heating sources in excess of that specified in the following schedule:

1. If the total equipment heat input has a capacity rating of ten (10) million British thermal units (Btu) or less, 0.60 pounds for each million Btu per hour input; or
2. If the total equipment heat input has a capacity rating of ten thousand (10,000) million Btu or more, 0.18 pounds for each million Btu per hour input.

- (B) The amount of particulate matter which may be emitted from fuel burning equipment having an intermediate capacity rating between ten (10) million and ten thousand (10,000) million Btu shall be determined by use of the following equation:

$$E = 0.90 (Q)^{-0.174}$$

where

E = the maximum allowable particulate emission rate in pounds per million Btu of heat input, rounded off to two (2) decimal places; and

Q = the installation heat input in millions of Btu per hour.

(3) Emission Limitations for New Indirect Heating Sources.

(A) No person may cause, allow or permit the emission of particulate matter in excess of that specified in the following schedule:

1. If the total equipment heat input has a capacity rating of ten (10) million Btu or less, 0.60 pounds for each million Btu per hour input; or
2. If the total equipment heat input has a capacity rating of two thousand (2,000) million Btu or more, 0.10 pounds for each million Btu per hour input.

(B) The amount of particulate matter which may be emitted from fuel burning equipment having an intermediate capacity rating between ten (10) million and two thousand (2,000) million Btu shall be determined by use of the following equation:

$$E = 1.31(Q)^{-0.338}$$

where

E = the maximum allowable particulate emission rate in pounds per million Btu of heat input, rounded off to two (2) decimal places; and

Q = the installation heat input in millions of Btu per hour.

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EPA Rulemakings

CFR: 40 CFR 52.1320 (c)

FRM: 77 FR 56555 (9/13/12)

PRM: 77 FR 56591 (9/13/12)

State Submission: 10/11/11

State Final: 10/30/11

APDB File: MO-312

Description: Missouri's new rule 10 CSR 10-6.405 consolidates four previously existing Missouri area-specific rules into one state-wide standard for clarity. The consolidated rule restricts the emission of PM from fuel burning equipment used for indirect heating and provides an exemption for units that burn specific types of "clean burning" fuels and an alternative method of demonstrating compliance by averaging emissions for facilities with multiple units subject to this rule. The four rescinded rules are: 10 CSR 10-2.040; 10 CSR 10-3.060; 10 CSR 10-4.040; and 10 CSR 10-5.030.

CFR: 40 C.F.R. 52.1320(c)

FRM: 68 FR 12831 (03/18/2003)

PRM: 68 FR 12886 (03/18/2003)

State Submission: 11/08/2003

State Final: 10 C.S.R. 10-4 (10/31/2002)

APDB File: MO-212 and MO-213

Description: This rule, which applies to the Missouri Springfield-Greene County area, was revised to make it consistent with the other indirect heating regulations and to make clerical corrections and clarifications.

CFR: 40 C.F.R. 52.1320(c) (48)

FRM: 50 FR 3337 (1/24/85)

PRM: None

State Submission: 9/24/84

State Proposal: 9 MR 563 (4/2/84)

State Final: 9 MR 1371 (9/4/84)

APDB File: MO-56

Description: The EPA approved a revision to the regulation which streamlined all of the fuel burning rules in the state by eliminating illustrative graphs and tables, and by converting the equation to exponential form.

CFR: 40 C.F.R. 52.1320(c) (27)
 FRM: 46 FR 27932 (5/22/81) and 49 FR 38103 (9/27/84) (correction), and
 54 FR 41094 (10/5/89) (correction)
 PRM: 46 FR 7007 (1/22/81)
 State Submission: 9/2/80
 State Proposal: 4 MR 307 (4/2/79)
 State Final: 4 MR 1302 (11/1/79)
 APDB File: MO-18
 Description: The EPA approved a revision which deleted malfunction provisions in
 conjunction with adoption of new Rule 10 C.S.R. 10-6.050.

CFR: 40 C.F.R. 52.1320(c) (13) (i)
 FRM: 45 FR 17145 (3/18/80)
 PRM: 44 FR 52001 (9/6/79)
 State Submission: 8/28/78
 State Proposal: Unknown
 State Final: Unknown
 APDB File: MO-03
 Description: The EPA approved the recodification of the rule from Regulation III
 (Springfield-Greene County) to 10 C.S.R. 10-4.040.

CFR: 40 C.F.R. 52.1320(a) (1)
 FRM: 37 FR 10842 (5/31/72)
 PRM: None
 State Submission: 1/24/72
 State Proposal: Unknown
 State Final: (effective 12/16/69)
 APDB File: MO-00
 Description: The EPA approved Regulation III (Springfield-Greene County) as part of the
 original SIP submission for controlling particulate matter emissions from
 fuel burning equipment used for indirect heating.

Difference Between the State and EPA-Approved Regulation

None.