

**10 CSR 10-2.040 Maximum Allowable Emission of Particulate Matter
from Fuel Burning Equipment Used for Indirect Heating**

RESCINDED

(1) General Provisions

(A) This rule applies to installations which have indirect heating sources.

(B) The heat content of solid fuels shall be determined as specified in 10 CSR 10-6.040, section (2). The heat content of liquid hydrocarbon fuels shall be determined as specified in 10 CSR 10-6.040, section (3).

(C) The heat input used for each indirect heating source shall be the equipment manufacturer's or designer's guaranteed maximum input in millions of BTU's per hour, whichever is greater.

(D) The amount of particulate matter emitted shall be determined as specified in 10 CSR 10-6.030, section (5).

(E) For the purpose of this rule, only, the following terms shall have the meaning ascribed below:

1. Existing--means any source which was in being, installed, or under construction on February 15, 1979, except that if any source is subsequently altered, repaired, or rebuilt at a cost of thirty percent (30%) or more of its replacement cost, exclusive of routine maintenance, it shall no longer be existing, but shall be considered as new.

2. New--means any source which is not an existing source, as defined in paragraph (1) (E) 1.

(F) This regulation shall not apply to indirect heating sources subject to the provisions of 10 CSR 10-6.070.

(G) 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) Maximum Allowable Particulate Emission Rate from Existing Indirect Heating Sources

(A) The total heat input of all existing indirect heating sources within an installation shall be used to determine the maximum allowable particulate emission rate, which is to be applied to each existing indirect heating source within the installation. Thereafter, each indirect heating source within the installation shall be tested and considered independently for compliance with this rule.

(B) Emission Limitations

1. The maximum allowable particulate emissions rate for an installation of existing indirect heating sources with a heat input rate of less than ten (10) million BTU per hour shall be 0.60 pounds per million BTU of heat input.

2. The maximum allowable particulate emission rate for an installation of existing indirect heating sources with a heat input rate equal to or greater than ten (10) million BTU per hour and less than or equal to five thousand (5,000) million BTU per hour shall be determined by the following equation:

$$E = 1.09(Q)^{-0.259}$$

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. The maximum allowable particulate emission rate for an installation of existing indirect heating sources with a heat input rate greater than five thousand (5,000) million BTU per hour shall be 0.12 pounds per million BTU of heat input.

(3) Maximum Allowable Particulate Emission Rate from New Indirect Heating Sources

(A) The total heat input of all new and existing indirect heating sources within an installation shall be used to determine the maximum allowable particulate emission rate which is to be applied to each new indirect heating source within the installation. The maximum allowable particulate emission rate from the existing indirect heating sources within such an installation shall be determined as specified by 10 CSR 10-

2.040, section (2). Thereafter, each indirect heating source within the installation shall be tested and considered independently for compliance with this rule.

(B) Emission Limitations

1. The maximum allowable particulate emission rate for new sources in an installation of indirect heating sources with a heat input rate of less than ten (10) million BTU per hour shall be 0.40 pounds per million BTU of heat input.

2. The maximum allowable particulate emission rate for new sources in an installation of indirect heating sources with a heat input rate equal to or greater than ten (10) million BTU per hour or less than or equal to one thousand (1,000) million BTU per hour shall be determined by the following equation:

$$E = 0.80(Q)^{-0.301}$$

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. The maximum allowable particulate emission rate for new sources in an installation of indirect heating sources with a heat input rate greater than one thousand (1,000) million BTU per hour shall be 0.10 pounds per million BTU of heat input.

(4) Compliance with this rule shall be accomplished by any installation as expeditiously as practicable, but in no case shall final compliance extend beyond three (3) years from the effective date of this rule. In the interim each installation shall meet the allowable particulate emission rate applicable to that installation on October 25, 1978.

(5) Alternate Method of Compliance

(A) Compliance with this rule may also be demonstrated if the weighted average emission rate of two (2) or more indirect heating sources is less than or equal to the maximum allowable particulate emission rate determined in section (2) or (3). The weighted average emission rate for the indirect heating sources to be averaged shall be calculated by the following formula:

$$WAER = \frac{\sum_{i=1}^n (ER_i \cdot Q_i)}{\sum_{i=1}^n Q_i}$$

where

WAER = the weighted average emission rate in pounds per million BTU's.

ER_i = the actual emission rate of the ith indirect heating source in pounds per million BTU's.

Q_i = the rated heat input of the ith indirect heating source in millions of BTU's per hour.

N = the number of indirect heating sources in the average.

(B) Installations demonstrating compliance with this rule in accordance with the requirements of section (5) shall do so by making written application to the director. Such application shall include the calculations performed in subsection (5)(A) and all necessary information relative to making this demonstration. After written approval by the director, the emission rates (ER) used in the calculations of subsection (5)(A) shall become the maximum allowable particulate emission rates for each specified indirect heating source under this rule.

(C) Section (5) shall only apply—

1. To indirect heating sources while burning coal, and
2. If the maximum allowable particulate emission rate determined in subsection (5)(B) for each indirect heating source does not exceed the maximum allowable particulate emission rate

determined for that source from sections (2) or (3) using the rated heat input, Q_i , for that individual indirect heating source as if that individual indirect heating source was the only such source at the installation.

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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) (48)
FRM: 50 FR 3337 (1/24/85)
PRM: None
State Submission: 9/24/84
State Proposal: 9 MR 558 (4/2/84)
State Final: 9 MR 1368 (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) (16) (viii)
FRM: 45 FR 24140 (4/9/80) and 45 FR 46806 (7/11/80) (correction)
PRM: 44 FR 61384 (10/25/79)
State Submission: 6/29/79
State Proposal: 3 MR 579 (9/1/78)
State Final: 4 MR 115 (2/1/79)
APDB File: MO-01
Description: The EPA approved a new version of the regulation as part of the Part D SIP for the Kansas City TSP nonattainment area.

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 (Kansas City Metropolitan Area) to 10 C.S.R. 10-2.040.

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 1/5/69; revised 2/25/70)
APDB File: MO-00
Description: The EPA approved Regulation III (Kansas City Metropolitan Area) 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.