

**10 CSR 10-6.400 Restriction of Emission of Particulate Matter
From Industrial Processes.**

(1) Applicability.

(A) This regulation applies to any operation, process or activity that emits particulate matter.

(B) The provisions of this rule shall not apply to the following:

1. Cotton gins;
2. The grinding, crushing and classifying operations at a rock quarry;
3. The receiving and shipping of whole grain from or into a railroad or truck transportation source at a grain elevator;
4. Smoke generating devices, as defined in subsection (2)(D) of this rule, when a required permit or a written determination that a permit is not required has been issued or written;
5. Batch-type charcoal kilns required to comply with 10 CSR 10-6.330;
6. The burning of fuel for indirect heating;
7. Fugitive emissions;
8. Emission sources that are exempt from construction permitting under 10 CSR 10-6.060 paragraphs (1)(D)1. and (1)(D)2.;
9. The burning of refuse;
10. The processing of salvageable material by burning;
11. Emission units that at maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter; and

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12. The grinding, crushing and conveying operations at a power plant.

(C) In the event that other rules in Title 10 Code of State Regulations are also applicable to particulate matter emission units, the more stringent requirement shall apply.

(2) Definitions.

(A) Process weight is defined as the total weight of all materials, including solid fuels, introduced into an emission unit, which may cause any emission of particulate matter, but excluding liquids and gases used solely as fuels and air introduced for purposes of combustion.

(B) Process weight rate is defined as a rate in tons per hour established as follows:

1. The rate of materials introduced to the process which may cause any emission of particulate matter;
2. For continuous or long-run steady-state emission units, the total process weight for the entire period of continuous operation or for a typical portion, divided by the number of hours of that period or portion;
3. For cyclical or batch emission units, the total process weight for a period of time which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during that period; or
4. Where the nature of any process or operation or the design of any equipment permits more than one (1) interpretation of this section, that interpretation which results in the minimum value for allowable emission shall apply.

(C) For purposes of this regulation, a jobbing cupola is defined as a cupola which has a single melting cycle operated no more than ten (10) hours in any

consecutive twenty-four (24) hours and no more than fifty (50) hours in any consecutive seven (7) days.

- (D) A smoke generating device is defined as a specialized piece of equipment which is not an integral part of a commercial, industrial, or manufacturing process and whose sole purpose is the creation and dispersion of fine solid or liquid particles in a gaseous medium.
- (E) Definitions of certain terms specified in this rule, other than those specified in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions.

- (A) Emission Limitations. All applicable sources, except grey iron jobbing cupolas and corn wet milling drying processes, shall meet the following requirements:

- 1. Except as provided for in paragraph (3)(A)2. and subsection (1)(B) of this rule, no person shall cause, suffer, allow or permit the emission of particulate matter in any one (1) hour from any source in excess of the amount calculated using one of the following equations selected based on the applicable process weight rate:

For process weight rates of 60,000 pounds per hour (lb/hr) or less:

$$E = (4.10)P^{0.67}$$

and for process weight rates greater than 60,000 lb/hr:

$$E = (55.0)P^{0.11} - 40;$$

where:

E = rate of emission in lb/hr; and
P = process weight rate in tons per hour (tons/hr); or

- 2. The limitations established by paragraph (3)(A)1. of this rule shall not require the reduction of

particulate matter concentration, based on the source gas volume, below the concentration specified in paragraph (3)(A)2., Table I of this rule for that volume; provided that, for the purposes of this section, the person responsible for the emission may elect to substitute a volume determined according to the provisions of paragraph (3)(A)3. of this rule; and provided further that the burden of showing the source gas volume or other volume substituted, including all the factors which determine volume and the methods of determining and computing the volume shall be on the person seeking to comply with the provisions of this section.

Table I

Source Gas Volume at at Standard Cubic Foot Per Minute	Concentration Grain Per Cubic Foot
7,000 or less	0.100
8,000	0.096
9,000	0.092
10,000	0.089
20,000	0.071
30,000	0.062
40,000	0.057
50,000	0.053
60,000	0.050
80,000	0.045
100,000	0.042
120,000	0.040
140,000	0.038
160,000	0.036
180,000	0.035
200,000	0.034
300,000	0.030
400,000	0.027
500,000	0.025
600,000	0.024
800,000	0.021
1,000,000 or more	0.020; or

3. Any volume of gases passing through and leaving an air pollution abatement operation may be substituted for the source gas volume of the emission unit served by the air pollution abatement operation, for the purposes of paragraph (3)(A)2. of this rule, provided that air pollution abatement operation emits no more than forty percent (40%) of the weight of particulate matter entering; and provided further that the substituted volume shall be corrected to standard conditions and to a moisture content no greater than that of any gas stream entering the air pollution abatement operation and further provided that there is an enforceable requirement to operate the air pollution abatement equipment; and
 4. Notwithstanding the provisions of paragraphs (3)(A)1. and (3)(A)2. of this rule, no person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.
- (B) Grey iron jobbing cupolas shall meet the following requirements:
1. Cupolas shall be equipped with gas cleaning devices operated to remove not less than eighty-five percent (85%) by weight of all the particulate matter in the cupola discharge gases or release not more than 0.4 grain of particulate matter per standard cubic foot of discharge gas, whichever is more stringent.
 2. All gases, vapors and gas entrained effluents shall be incinerated at a temperature not less than one thousand two hundred degrees Fahrenheit (1200°F) for a period of not less than 0.3 seconds.
- (C) All existing corn wet milling drying processes shall be equipped with gas cleaning devices and so operated as to remove not less than ninety-nine and one-half

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percent (99.5%) by weight of all particulate matter in the dryer discharge gases.

- (4) Reporting and Record Keeping. All records of any tests performed to determine the amount of particulate matter emitted from a unit shall be kept on-site and available for inspection for five (5) years following the test date.
- (5) Test Methods. The amount of particulate matter emitted shall be determined as specified in 10 CSR 10-6.030(5). Any other test method must be approved by the director.

