



Rules of
Department of Natural Resources
Division 10—Air Conservation Commission
Chapter 4—Air Quality Standards and Air Pollution
Control Regulations for
the Springfield-Greene County Area

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**Title 10—DEPARTMENT OF
NATURAL RESOURCES
Division 10—Air Conservation
Commission**

**Chapter 4—Air Quality Standards and
Air Pollution Control Regulations for the
Springfield-Greene County Area**

**10 CSR 10-4.010 Ambient Air Quality
Standards**

(Rescinded February 11, 1978)

AUTHORITY: section 203.050 RSMo 1969. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Rescinded: Published Sept. 1, 1977, effective Feb. 11, 1978.

10 CSR 10-4.020 Definitions

(Rescinded February 11, 1978)

AUTHORITY: section 203.050 RSMo 1969. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Rescinded: Published Sept. 1, 1977, effective Feb. 11, 1978.

**10 CSR 10-4.030 Restriction of Emissions
of Particulate Matter From Industrial Pro-
cesses**

(Rescinded March 30, 2001)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed June 30, 1975, effective July 10, 1975. Amended: Filed March 15, 1979, effective Nov. 11, 1979. Amended: Filed Oct. 13, 1983, effective March 12, 1984. Rescinded: Filed Aug. 4, 2000, effective March 30, 2001.

**10 CSR 10-4.040 Maximum Allowable
Emission of Particulate Matter From Fuel
Burning Equipment Used for Indirect
Heating**

PURPOSE: This regulation restricts the emission of particulate matter from fuel burning equipment used for indirect heating except where 10 CSR 10-6.070 would be applied.

(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 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.

AUTHORITY: section 643.050, RSMo 2000. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed March 15, 1979, effective Nov. 11, 1979. Amended: Filed Oct. 13, 1983, effective March 12, 1984. Amended: Filed March 14, 1984, effective Sept. 14, 1984. Amended: Filed April 1, 2002, effective Nov. 30, 2002.*

**Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995.*

**10 CSR 10-4.050 Preventing Particulate
Matter From Becoming Airborne**

(Rescinded September 28, 1990)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed May 11, 1984, effective Oct. 11, 1984. Rescinded: Filed March 5, 1990, effective Sept. 28, 1990.

**10 CSR 10-4.060 Restrictions of Emission of Visible Air Contaminants**

(Rescinded May 30, 2000)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed Jan. 14, 1977, effective July 11, 1977. Rescinded: Filed Sept. 15, 1999, effective May 30, 2000.

10 CSR 10-4.070 Restriction of Emission of Odors

PURPOSE: This rule restricts the emission of excessive odorous matter.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) No persons may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that the odor can be perceived when one (1) volume of odorous air is diluted with seven (7) volumes of odor-free air for two (2) separate trials not less than fifteen (15) minutes apart within the period of one (1) hour.

(2) These measurements may be made with a Scentometer as manufactured by the Barnebey & Sutcliffe Corporation or by a similar technique that will give equivalent results.

(3) Exception. The provisions of this rule shall not apply to the emission of odorous matter from the raising and harvesting of crops nor from the feeding, breeding and management of livestock or domestic animals or fowl except as described in section (4) of this rule.

(4) Control of Odors from Class 1A Concentrated Animal Feeding Operations.

(A) Notwithstanding any provision in any other regulation to the contrary, all Class 1A concentrated animal feeding operations as defined in section 640.703(3), RSMo, operating on or after January 1, 1999, shall prepare and implement an odor control plan

describing measures to be used to control odor emissions. The plan shall identify all sources of odor emissions and describe the measures to be used to reduce the overall odor emissions associated with the facility operations. The schedule for these activities shall be as follows:

1. Not later than July 1, 2000, an odor control plan shall be submitted to the Air Pollution Control Program (APCP). The odor control plan shall contain the following:

A. A listing of all potentially innovative and proven odor control options for the facility. Odor control options may include odor reductions achieved through: odor prevention, odor capture and treatment, odor dispersion, add-on control devices, modifications to feed-stock or waste handling practices, or process changes;

B. A detailed discussion of feasible odor control options for the facility. The discussion shall include options determined by the facility to be infeasible. Determination of infeasibility should be well documented and based on physical, chemical and engineering principles demonstrating that technical difficulties would preclude the success of the control option;

C. A ranking of feasible odor control options from most to least effective. Ranking factors shall include odor control effectiveness, expected odor reduction, energy impacts and economic impacts;

D. An evaluation of the most effective odor control options. Energy, environmental and economic impacts shall be evaluated on a case-by-case basis;

E. Description of the odor control options to be implemented by the facility;

F. A schedule for implementation. The schedule shall establish interim milestones in implementing the odor control plan prior to the implementation deadline; and

G. An odor monitoring plan;

2. The APCP, in consultation with the Water Pollution Control Program, shall review and approve or disapprove the odor control plan.

A. After the APCP receives an odor control plan they shall perform a completeness review. Within thirty (30) days of receipt, the APCP shall notify the facility if the plan contains all the elements of a complete odor control plan. If found incomplete, the APCP shall give the facility a written explanation of the plan's deficiencies.

B. Within sixty (60) days after determining an odor control plan submittal is deemed complete, the APCP shall approve or disapprove the plan. During this sixty (60)-day technical review period, the APCP may request additional information needed for

review. If the plan is disapproved, the APCP shall give the facility a written evaluation explaining the reason(s) for disapproval;

3. Not later than March 1, 2001, the facility shall submit to the APCP a written progress report on implementing the odor control plan. The progress report shall, at a minimum, compare the actual schedule of implementation to that approved in the odor control plan; and

4. Not later than January 1, 2002, implementation of the odor control plan shall be complete and controls shall be operational.

(B) Notwithstanding any provision in any other regulation to the contrary, all new Class 1A concentrated animal feeding operations, prior to commencement of construction, shall obtain approval from the APCP of an odor control plan as described above.

(C) After January 1, 2002, no Class 1A concentrated animal feeding operation may cause, permit or allow the emission of odorous matter—

1. In concentrations and frequencies or for durations that the odor can be perceived when one (1) volume of odorous air is diluted with seven (7) volumes of odor-free air for two (2) separate trials not less than fifteen (15) minutes apart within the period of one (1) hour. This odor evaluation shall be taken at a site not at the installation and will be used as a screening evaluation. A positive screening evaluation for odor shall require an odor sample to be taken and evaluated by olfactometry as described in paragraph (4)(C)2. of this rule. These measurements may be made with a Scentometer as manufactured by the Barnebey & Sutcliffe Corporation or by a similar technique that will give equivalent results; and

2. When one (1) of the following conditions is met:

A. In concentrations with a best estimate detection threshold, represented as $Z_{OL} \geq 110$, as determined using American Society for Testing and Materials Standard E 679-04 (published April 2004) at an olfactometer flow rate of twenty (20) liters per minute. This standard is incorporated by reference in this rule, as published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions; or

B. At intensities greater than that of two hundred twenty-five (225) parts per million of n-butanol odorant in air, which serves as the reference scale, as determined by an olfactometry panel evaluation of a sample of the odorous air.

(D) The director may require an ambient air monitoring quality assurance project plan.



This plan shall be approved by the director and include or reference the documented and approved standard operating procedures for monitoring, field collection and analysis for any Class 1A CAFO that exceeds the odor emission limits found in paragraph (4)(C)2. of this rule following implementation of its odor control plan. Monitoring shall be done for pollutants or gases reasonably expected to be emitted by the CAFO and implemented on a schedule as agreed to by the source operator and the staff director. Monitoring shall begin and continue as approved in the plan and shall not exceed eight (8) quarters of complete data unless subsequent violations are determined.

AUTHORITY: section 643.050, RSMo 2000.* Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed Aug. 15, 1983, effective Jan. 13, 1984. Amended: Filed Nov. 2, 1998, effective July 30, 1999. Amended: Filed Feb. 14, 2003, effective Sept. 30, 2003. Amended: Filed Dec. 4, 2006, effective July 30, 2007.

*Original authority: 643.050, RSMo 1965, amended 1972, transferred from 203.050 in 1986, 1992, 1993, 1995.

10 CSR 10-4.080 Incinerators
(Rescinded December 9, 1991)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed Dec. 15, 1982, effective May 12, 1983. Amended: Filed Oct. 13, 1983, effective March 12, 1984. Rescinded: Filed May 20, 1991, effective Dec. 9, 1991.

10 CSR 10-4.090 Open Burning Restrictions
(Rescinded January 30, 2008)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed Nov. 9, 1983, effective April 12, 1984. Rescinded: Filed June 7, 2007, effective Jan. 30, 2008.

10 CSR 10-4.100 Approval of Planned Installations
(Rescinded April 11, 1980)

AUTHORITY: section 203.050, RSMo 1978. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed Aug. 25, 1972, effective Sept. 4, 1972. Amended: Filed Aug. 16, 1977, effective Feb. 11, 1978.

Rescinded: Filed Dec. 10, 1979, effective April 11, 1980.

Op. Atty. Gen. No. 331, Shell, 11-15-71. The Missouri Air Conservation Commission has the authority under Chapter 203, RSMo (1969) to provide for the equivalent of a construction permit system by promulgating regulations to require the submission of plans and specifications for approval before any person may construct any facility which will cause air pollution, but that the commission has no such authority regarding an equivalent permit system for the operation of existing facilities which are the source of air pollution.

10 CSR 10-4.110 Measurement of Emissions of Air Contaminants
(Rescinded April 9, 1992)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Rescinded: Filed Oct. 16, 1991, effective April 9, 1992.

10 CSR 10-4.120 Submission of Emission Information
(Rescinded November 12, 1984)

AUTHORITY: section 203.050, RSMo 1978. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed Aug. 25, 1972, effective Sept. 4, 1972. Rescinded: Filed June 13, 1984, effective Nov. 12, 1984.

Op. Atty. Gen. No. 331, Shell, 11-15-71. The Missouri Air Conservation Commission does not have any specific authority to require the installation of emission monitoring devices, but does have the authority to require reports from sources of air pollution relating to rate, period of emission and composition of effluent and to make this information available to the public, unless any such information is "confidential" as defined by section 203.050.4, RSMo (1969).

10 CSR 10-4.130 Circumvention
(Rescinded September 28, 1990)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Rescinded: Filed April 18, 1990, effective Sept. 28, 1990.

10 CSR 10-4.140 Time Schedule for Compliance
(Rescinded December 30, 2008)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Rescinded: Filed April 17, 2008, effective Dec. 30, 2008.

10 CSR 10-4.150 Restriction of Emission of Sulfur Compounds
(Rescinded July 30, 1997)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 5, 1969, effective Dec. 15, 1969. Amended: Filed Jan. 31, 1972, effective Feb. 9, 1972. Amended: Filed Oct. 14, 1977, effective March 11, 1978. Rescinded: Filed Dec. 13, 1996, effective July 30, 1997.

10 CSR 10-4.160 Rules for Controlling Emissions During Periods of High Air Pollution Potential
(Rescinded October 11, 1984)

AUTHORITY: section 203.050, RSMo 1978. Original rule filed Jan. 31, 1972, effective Feb. 10, 1972. Rescinded: Filed May 11, 1984, effective Oct. 11, 1984.

Op. Atty. Gen. No. 331, Shell, 11-15-71. The Missouri Air Conservation Commission has the authority under Chapter 203, RSMo (1969) to abate pollutant emissions on an emergency basis comparable to that available under 42 USCA, Section 1857d(k).

10 CSR 10-4.170 Public Availability of Emission Data
(Rescinded November 12, 1984)

AUTHORITY: section 203.050, RSMo 1978. Original rule filed Aug. 25, 1972, effective Sept. 4, 1972. Rescinded: Filed June 13, 1984, effective Nov. 12, 1984.

Op. Atty. Gen. No. 331, Shell, 11-15-71. The Missouri Air Conservation Commission does not have any specific authority to require the installation of emission monitoring devices, but does have the authority to require reports from sources of air pollution relating to rate, period of emission and composition of effluent and to make such information available to the public, unless any such information is "confidential" as defined by section 203.050.4, RSMo (1969).



10 CSR 10-4.180 New Source Performance Regulations

(Rescinded April 11, 1980)

AUTHORITY: section 203.050, RSMo 1978. Original rule filed Dec. 19, 1975, effective Dec. 29, 1975. Rescinded: Filed Dec. 10, 1979, effective April 11, 1980.

Op. Atty. Gen. No. 331, Shell, 11-15-71. The Missouri Air Conservation Commission has the authority under Chapter 203, RSMo (1969) to adopt emission control regulations, including limitations on the content of fuels, which will attain and maintain national air quality standards, if the same standards are the same or more stringent.

10 CSR 10-4.190 Restriction of Emission of Sulfur Compounds From Indirect Heating Sources

(Rescinded July 30, 1997)

AUTHORITY: section 203.050, RSMo 1986. Original rule filed Oct. 14, 1977, effective March 11, 1978. Rescinded: Filed Dec. 13, 1996, effective July 30, 1997.