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**Rules of**  
**Department of Natural Resources**  
**Division 10—Air Conservation Commission**  
**Chapter 2—Air Quality Standards and**  
**Air Pollution Control Rules Specific**  
**to the Kansas City Metropolitan Area**

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

**Chapter 2—Air Quality Standards and  
Air Pollution Control Rules  
Specific to the Kansas City  
Metropolitan Area**

**10 CSR 10-2.010 Ambient Air Quality  
Standards**

(Rescinded February 11, 1978)

*AUTHORITY: section 203.050, RSMo 1969. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed March 26, 1970, effective April 5, 1970. Rescinded: Filed Sept. 1, 1977, effective Feb. 11, 1978.*

**10 CSR 10-2.020 Definitions**

(Rescinded February 11, 1978)

*AUTHORITY: section 203.050, RSMo 1969. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed March 26, 1970, effective April 5, 1970. Rescinded: Filed Sept. 1, 1977, effective Feb. 11, 1978.*

**10 CSR 10-2.030 Restriction of Emission of  
Particulate Matter From Industrial Pro-  
cesses**

(Rescinded March 30, 2001)

*AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed June 30, 1975, effective July 9, 1975. Amended: Filed March 15, 1979, effective Nov. 11, 1979. Amended: Filed July 16, 1979 effective Feb. 11, 1980. Amended: Filed Oct. 13, 1983, effective March 12, 1984. Rescinded: Filed Aug. 4, 2000, effective March 30, 2001.*

*Op. Atty. Gen. No. 331, Shell, 11-15-71. The Missouri Air Conservation Commission has the authority under Chapter 203, RSMo 1969 and the Constitution of Missouri to enforce without delay the provisions of Chapter 203, RSMo 1969 and standards and regulations, through administrative procedures and injunctive relief.*

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

*PURPOSE: This rule tightens the emission limitations on indirect heating sources, differentiates between new and existing sources*

*and changes the method of compliance determination allowing for easier enforcement of the rule.*

(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(2). The heat content of liquid hydrocarbon fuels shall be determined as specified in 10 CSR 10-6.040(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 British Thermal Units (BTUs) per hour, whichever is greater.

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

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

1. Existing—means any source which was in being, installed or under construction on February 15, 1979, except that if any source subsequently is 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; and

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 (ER) 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 ER, which is to be applied to each existing indirect heating source within the installation. After that, 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 ER for an installation of existing indirect heating sources with a heat input rate of less than ten (10) million BTUs per hour shall be 0.60 pounds per million BTUs of heat input.

2. The maximum allowable particulate ER for an installation of existing indirect heating sources with a heat input rate equal to or greater than ten (10) million BTUs per hour and less than or equal to five thousand (5000) million BTUs per hour shall be determined by the following equation:

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

where

E = the maximum allowable particulate ER 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 ER for an installation of existing indirect heating sources with a heat input rate greater than five thousand (5000) million BTUs per hour shall be 0.12 pounds per million BTUs of heat input.

(3) Maximum Allowable Particulate ER 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 ER which is to be applied to each new indirect heating source within the installation. The maximum allowable particulate ER from the existing indirect heating sources within an installation shall be determined as specified by section (2). After that, 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 ER for new sources in an installation of indirect heating sources with a heat input rate of less than ten (10) million BTUs per hour shall be 0.40 pounds per million BTUs of heat input.

2. The maximum allowable particulate ER for new sources in an installation of indirect heating sources with a heat input rate equal to or greater than ten (10) million BTUs per hour and less than or equal to one thousand (1000) million BTUs per hour shall be determined by the following equation:

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

where

E = the maximum allowable particulate ER in pounds per million BTUs of heat input, rounded off to two (2) decimal places; and  
Q = the installation heat input in millions of BTUs per hour.

3. The maximum allowable particulate ER for new sources in an installation of indirect heating sources with a heat input rate

greater than one thousand (1000) million BTUs per hour shall be 0.10 pounds per million BTUs 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 (March 25, 1983) from the effective date of this rule (March 25, 1980). In the interim, each installation shall meet the allowable particulate ER applicable to that installation on October 25, 1978.

(5) Alternate Method of Compliance.

(A) Compliance with this rule also may be demonstrated if the weighted average ER of two (2) or more indirect heating sources is less than or equal to the maximum allowable particulate ER determined in section (2) or (3).

1. The weighted average ER 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 ER in pounds per million BTUs;  
 ER<sub>i</sub> = the actual ER of the i<sup>th</sup> indirect heating source in pounds per million BTUs;  
 Q<sub>i</sub> = the rated heat input of the i<sup>th</sup> indirect heating source in millions of BTUs per hour; and  
 n = the number of indirect heating sources in the average.

(B) Installations demonstrating compliance with this rule in accordance with the requirements of section (6) shall do so by making written application to the director. The 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 ER used in the calculations of subsection (5)(A) shall become the maximum allowable particulate ER for each specified indirect heating source under this rule.

(C) This section (5) only shall apply—

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

maximum allowable particulate ER determined for that source from section (2) or (3) of this rule using the rated heat input, Q<sub>i</sub>, for that individual indirect heating source as if that individual indirect heating source was the only source at the installation.

*AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed March 2, 1972, effective March 12, 1972. Rescinded and readopted: Filed Aug. 11, 1978, effective Feb. 11, 1979. Amended: Filed March 14, 1984, effective Sept. 14, 1984.*

**10 CSR 10-2.050 Preventing Particulate Matter From Becoming Airborne**  
 (Rescinded September 28, 1990)

*AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed Dec. 27, 1971, effective Jan. 6, 1972. Amended: Filed June 30, 1975, effective July 9, 1975. Amended: Filed May 11, 1984, effective Oct. 11, 1984. Rescinded: Filed March 5, 1990, effective Sept. 28, 1990.*

**10 CSR 10-2.060 Restriction of Emission of Visible Air Contaminants**  
 (Rescinded May 30, 2000)

*AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed April 5, 1972, effective April 15, 1972. Amended: Filed Jan. 15, 1977, effective July 11, 1977. Amended: Filed July 16, 1979, effective Feb. 11, 1980. Rescinded: Filed Sept. 15, 1999, effective May 30, 2000.*

**10 CSR 10-2.070 Restriction of Emission of Odors**

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

- (1) No person 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, as agreed to at the time by the source operator and the staff director.

(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 five and four-tenths (5.4) 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, as agreed to at the time by the source operator and the staff director; 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 679-91 (Reapproved 1997) at an olfactometer flow rate of twenty (20) liters per minute; 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. 26, 1968, effective Jan. 5, 1969. Amended: Filed March 26, 1970, effective April 5, 1970. 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.*

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

#### **10 CSR 10-2.080 Emission of Visible Air Contaminants From Internal Combustion Engines**

(Rescinded November 30, 2002)

*AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Rescinded: Filed Feb. 28, 2002, effective Nov. 30, 2002.*

*Op. Atty. Gen. No. 331, Shell, 11-15-71. The state of Missouri has the authority to inspect for "air pollution control devices" which may be installed on motor vehicles as a requirement to comply with applicable emission regulations but whether regulations and inspections would accomplish the purpose of "enforcing compliance with applicable emission standards" which are federal standards and whether the preemption provi-*

*sion of 42 USCA, Section 1857f-6a has been complied with are questions that only the appropriate federal officials can answer. 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 state standards are the same or more stringent.*

#### **10 CSR 10-2.090 Incinerators** (Rescinded December 9, 1991)

*AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1964. 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 10-2.100 Open Burning Restrictions**

*PURPOSE: This regulation prohibits the disposal of refuse by open burning except as provided under specified conditions.*

*Editor's Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.*

(1) Refuse Burning Restrictions. On and after May 1, 1969 no person may conduct, cause, permit or allow open burning of refuse.

(2) Prohibition of Salvage Operations by Open Burning. On and after ninety (90) days from the effective date of this regulation (June 25, 1975), no person may conduct, cause, permit or allow a salvage operation by open burning.

(3) Restrictions on Open Burning of Trade Wastes. On and after one hundred eighty (180) days (September 25, 1976) from the effective date of this regulation (March 25, 1976), no person may conduct, cause, permit or allow the disposal of trade wastes by open burning.

(4) Exceptions.

(A) Open burning of household refuse originating from a residence of fewer than

five (5) dwelling units shall not be in violation of section (1) of this regulation, provided that the burning takes place on the premises where the refuse originates and provided further that the burning takes place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph.

(B) The open burning of trade wastes and vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal and that disposal is in the public interest. Any person intending to engage in the open burning shall file a request to do so with the director. The application shall state the following:

1. The name, address and telephone number of the person submitting the application;

2. The type of business or activity involved;

3. A description of the proposed equipment and operating practices, the type, quantity and composition of material to be burned and the expected composition and amount of air contaminants to be released to the atmosphere, where known;

4. The schedule of burning operations;

5. The exact location where the open burning will occur;

6. Reasons why open burning is the only feasible method of disposal and why disposal is in the public interest; and

7. Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction. Upon approval of the application by the director, the person may proceed with the operation without being in violation of section (1) or (3) of this regulation but this approval shall not exempt the applicant from the provisions of any other law, ordinance or regulation.

(C) An open burning permit may be issued by the director for open burning on a continual basis at a sanitary landfill, demolition landfill, compost plant, transfer station or salvage operation provided that—

1. The sanitary landfill, demolition landfill, compost plant, transfer station or salvage operation has a valid permit issued by the Waste Management Program under the provisions of sections 260.200–260.245, RSMo or is approved for open burning by the director in cases where a Waste Management Program permit is not required;

2. Only tree trunks, tree limbs, vegetation or untreated waste lumber are burned;

3. The open burning will take place at a time of day when atmospheric conditions will permit adequate dispersion of smoke;

4. The distance from the open burning site to the nearest inhabited residence or commercial business is at least two hundred (200) yards or a greater distance as determined by the director to be required to prevent a nuisance;

5. The open burning will not hinder the operation of the installation itself, ignite material other than that specified in paragraph (4)(C)2. or otherwise create a fire hazard;

6. The fire control authority which has jurisdiction approves the method and site of open burning;

7. The owner or operator complies with all applicable laws, regulations and ordinances regulating open burning;

8. The owner or operator submits information to the director prior to the issuance of the permit showing that the conditions of this subsection will be met;

9. The director may place conditions in the permit concerning times, methods and locations of burning in order to prevent air pollution, nuisance conditions or safety hazards;

10. In a nonattainment area, as defined in 10 CSR 10-6.020(2)(N)3., the director shall not issue a permit under this subsection, unless the owner or operator can demonstrate to the satisfaction of the director that the emissions from the open burning of the specified material would be less than the emissions from otherwise processing the specified material; and

11. The permit may be revoked if the owner or operator fails to comply with the provisions of this subsection or any condition of the permit or if a permit issued by the Waste Management Program as specified in paragraph (4)(C)1. is revoked or voided.

(D) This regulation shall not apply to the following:

1. Fires set in connection with agricultural operations related to the growing or harvesting of crops. For the purpose of this regulation, botanical nursery operations shall not be considered as agricultural operations;

2. The burning of gaseous trade wastes in refinery or industrial chemical safety flares. Full smokeless-tip combustion, steam addition or other flare smoke control methods approved by the staff director shall be used and emissions may not be of a shade or density equal to or greater than No. 1 on the Ringelmann Chart, Bureau of Mines Information Circular 8333; and

3. Fires used for recreational purposes or fires used for the noncommercial preparation of food such as by barbecuing.

(E) Within the corporate limits of St. Joseph, the open burning of residential yard waste consisting of leaves and brush from vegetation grown on a residential property is permitted during the following calendar periods and time-of-day restrictions:

1. A three (3)-week period within the period commencing the first day of March through April 30 continuing for twenty-one (21) consecutive calendar days;

2. A three (3)-week period within the period commencing the first day of October through November 30 for twenty-one (21) consecutive calendar days;

3. The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and

4. The twenty-one (21)-day burning period, in each instance, shall be determined by the Director of Public Health and Welfare of the City of St. Joseph and the state fire marshal for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the director.

*AUTHORITY: section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed March 2, 1972, effective March 12, 1972. Amended: Filed Feb. 13, 1979, effective July 12, 1979. Amended: Filed Aug. 13, 1982, effective Jan. 13, 1983. Amended: Filed Nov. 9, 1983, effective April 12, 1984.*

#### **10 CSR 10-2.110 Approval of Planned Installations Required** (Rescinded April 11, 1980)

*AUTHORITY: section 203.050, RSMo 1978. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed Dec. 27, 1971, effective Jan. 6, 1972. 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. 218, Shell, 8-21-73. The Missouri Air Conservation Commission does not have the authority under Chapter 203, RSMo to prevent the construction of "complex sources" when it is determined that such sources may indirectly cause ambient air quality standards to be violated.*

*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 10-2.120 Measurement of Emissions of Air Contaminants**  
(Rescinded April 9, 1992)

*AUTHORITY:* section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Rescinded: Filed Oct. 15, 1991, effective April 19, 1992.

**10 CSR 10-2.130 Submission of Emission Information**  
(Rescinded November 12, 1984)

*AUTHORITY:* section 203.050, RSMo 1978. Original rule filed Dec. 26, 1968, effective Jan. 5, 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 such information available to the public, unless any such information is “confidential” as defined by section 203.050.4, RSMo (1969).

**10 CSR 10-2.140 Circumvention**  
(Rescinded September 28, 1990)

*AUTHORITY:* section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Rescinded: Filed April 18, 1990, Sept. 28, 1990.

**10 CSR 10-2.150 Time Schedule for Compliance**

*PURPOSE:* This regulation specifies the time schedule for compliance with regulations by new and existing sources.

(1) Except as otherwise specified, compliance with the provisions of this regulation shall be according to the following time schedule:

(A) All new installations shall comply as of going into operation;

(B) All existing installations not in compliance as of March 25, 1976, shall be in compliance within six (6) months (March 25, 1977) of the effective date (September 25, 1976) unless the owner or person responsible for the operation of the installation shall have submitted to the staff director, in a form and manner satisfactory to him/her, a program and schedule for achieving compliance, the program and schedule to contain a date on or before which full compliance will be attained and other information as the staff director may require. If approved by the staff director, this date will be the date on which the person shall comply. The staff director may require persons submitting the program to submit subsequent periodic reports on progress in achieving compliance; and

(C) All other dates notwithstanding, all existing installations in Buchanan County shall be in compliance with this regulation by September 1, 1970 and January 1, 1971 for 10 CSR 10-2.050, unless the owner or person responsible for the operation of the installation has submitted to the staff director, in a form and manner satisfactory to him/her, a program and schedule for achieving compliance, the program and schedule to contain a date on or before which full compliance will be attained and other information as the staff director may require. If approved by the staff director, this date will be the date on which the person shall comply.

*AUTHORITY:* section 203.050, RSMo 1986. Original rule filed Dec. 26, 1968, effective Jan. 5, 1969. Amended: Filed March 26, 1970, effective April 5, 1970.

**10 CSR 10-2.160 Restriction of Emission of Sulfur Compounds**  
(Rescinded July 30, 1997)

*AUTHORITY:* section 203.050, RSMo 1986. Original rule filed March 24, 1971, effective April 3, 1971. Amended: Filed Oct. 14, 1977, effective March 11, 1978. Rescinded: Filed Dec. 13, 1996, effective July 30, 1997.

**10 CSR 10-2.170 Rules for Controlling Emissions During Periods of High Air Pollution Potential**  
(Rescinded October 11, 1984)

*AUTHORITY:* section 203.050, RSMo 1978. Original rule filed March 24, 1971, effective April 3, 1971. Amended: Filed Dec. 27, 1971, effective Jan. 6, 1972. Rescinded: Filed May 11, 1984, effective Oct. 11, 1984.

**10 CSR 10-2.180 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 in section 203.050.4, RSMo 1969.

**10 CSR 10-2.190 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 state standards are the same or more stringent.

**10 CSR 10-2.200 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.

**10 CSR 10-2.205 Control of Emissions From Aerospace Manufacture and Rework Facilities**

*PURPOSE:* This rulemaking will reduce volatile organic compound emissions from aerospace manufacture and/or rework facilities located in the Kansas City ozone maintenance area. This rulemaking is required to comply with the Clean Air Act Amendments of 1990. The RSMo 536.016 requirement for



necessity evidence is the *Kansas City Ozone Maintenance Plan adopted February 3, 1998, and Section 182 of the Clean Air Act.*

*PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of that material will be made available to any interested person at both the the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

(1) Applicability.

(A) This rulemaking shall apply throughout Platte, Clay, and Jackson Counties.

(B) The requirements of this rulemaking shall apply to all aerospace manufacture and/or rework facilities with potential emissions of volatile organic compounds (VOC) exceeding twenty-five (25) tons per year.

(2) Definitions.

(A) Definitions of individual specialty coatings specified in this rule are incorporated by reference from 40 CFR 63 Subpart GG, Appendix A, with the following modifications:

1. Mold release—A coating applied to a mold surface to prevent the mold piece from sticking to the mold as it is removed, or to an aerospace component for purposes of creating a form-in-place seal.

2. Caulking and smoothing compound—A semi-solid material that is used to aerodynamically smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a caulking and smoothing compound if it can be classified as a sealant.

(B) Aerospace manufacture and/or rework facility—Any installation that produces, reworks, or repairs in any amount any commercial, civil, or military aerospace vehicle or component.

(C) Aerospace vehicle or component—Any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft.

(D) Antique aerospace vehicle or component—An aircraft or component thereof that was built at least thirty (30) years ago. An antique aerospace vehicle would not routinely be in commercial or military service in the capacity for which it was designed.

(E) Aqueous cleaning solvent—A cleaning solution in which water is the primary ingredient (greater than eighty percent (80%) by weight of cleaning solvent solution as applied

must be water). Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water along with a variety of additives such as organic solvents (e.g. high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than ninety-three degrees Celsius (93°C) (two hundred degrees Fahrenheit (200°F)) (as reported by the manufacturer) and the solution must be miscible with water.

(F) Chemical milling maskants—A coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or Type II etchant. Type I chemical milling maskants are used with a Type I etchant and Type II chemical milling maskants are used with a Type II etchant. This definition does not include bonding maskants, critical use and line sealer maskants, and seal coat maskants. Maskants that must be used with a combination of Type I or Type II etchants and any of the above types of maskants are also not included in this definition.

(G) Energized electrical systems—Any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells, and tail sections.

(H) Flush cleaning—The removal of contaminants such as dirt, grease, and coatings from an aerospace vehicle or component or coating equipment by passing solvent over, into, or through the item being cleaned. The solvent may simply be poured into the item cleaned and then drained, or be assisted by air or hydraulic pressure, or by pumping. Hand-wipe cleaning operations where wiping, scrubbing, mopping, or other hand actions are used are not included in this definition.

(I) General aviation—Segment of civil aviation that encompasses all facets of aviation except air carriers, commuters, and military. General aviation includes charter and corporate-executive transportation, instruction, rental, aerial application, aerial observation, business, pleasure, and other special uses.

(J) General aviation rework facility—Any aerospace installation with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion, or alteration of general aviation aerospace vehicles or components.

(K) High volume low pressure (HVLP) spray equipment—Spray equipment that is used to apply coating by means of spray gun that operates at ten pounds per square inch gauge (10 psig) of atomizing air pressure or less at the air cap.

(L) Low vapor pressure hydrocarbon-based cleaning solvent—A cleaning solvent that is composed of a mixture of photochemically reactive hydrocarbons and oxygenated hydrocarbons and has a maximum vapor pressure of seven millimeters of mercury (7 mmHg) at twenty degrees Celsius (20°C). These cleaners must not contain hazardous air pollutants.

(M) Primer—The first layer and any subsequent layers of identically formulated coating applied to the surface of an aerospace vehicle or component. Primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent coatings. Primers that are defined as specialty coatings are not included under this definition.

(N) Self-priming topcoat—A topcoat that is applied directly to an uncoated aerospace vehicle or component for purposes of corrosion prevention, environmental protection, and function fluid resistance. More than one (1) layer of identical coating formulation may be applied to the vehicle or component.

(O) Semi-aqueous cleaning solvent—A solution in which water is a primary ingredient (greater than sixty percent (60%) by weight of the solvent solution as applied must be water).

(P) Specialty coating—A coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection.

(Q) Topcoat—A coating that is applied over a primer on an aerospace vehicle or component for appearance, identification, camouflage, or protection. Topcoats that are defined as specialty coatings are not included under this definition.

(R) Touch-up and repair operation—That portion of the coating operation that is the incidental application of coating used to cover minor imperfections in the coating finish or to achieve complete coverage. This definition includes out-of-sequence or out-of-cycle coating.

(S) Type I etchant—A chemical milling etchant that contains varying amounts of dissolved sulfur and does not contain amines.

(T) Type II etchant—A chemical milling etchant that is a strong sodium hydroxide solution containing amines.

(U) 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) No person shall cause, permit, or allow the emissions of VOC from the coating of aerospace vehicles or components to exceed—

1. 2.9 pounds per gallon (350 grams per liter) of coating, excluding water and exempt solvents delivered to a coating applicator that applies primers. For general aviation rework facilities, the VOC limitation shall be 4.5 pounds per gallon of coating, excluding water and exempt solvents, delivered to a coating applicator that applies primers;

2. 3.5 pounds per gallon (420 grams per liter) of coating, excluding water and exempt solvents, delivered to a coating applicator that applies topcoats (including self-priming topcoats). For general aviation rework facilities, the VOC limit shall be 4.5 pounds per gallon (540 grams per liter) of coating, excluding water and exempt solvents, delivered to a coating applicator that applies topcoats (including self-priming topcoats);

3. The VOC content limits listed in Table I expressed in pounds per gallon of coating, excluding water and exempt solvents delivered to a coating applicator that applies specialty coatings;

Table I: Specialty Coating VOC Limitations	Pounds per gallon	Grams per liter
Ablative Coating	5.0	600
Adhesion Promoter	7.4	890
Adhesive Bonding Primers:		
Cured at 250°F or below	7.1	850
Cured above 250°F	8.6	1030
Adhesives:		
Commercial Interior Adhesive	6.3	760
Cyanoacrylate Adhesive	8.5	1020
Fuel Tank Adhesive	5.2	620
Nonstructural Adhesive	3.0	360
Rocket Motor Bonding Adhesive	7.4	890
Rubber-Based Adhesive	7.1	850
Structural Autoclavable Adhesive	0.5	60
Structural Nonautoclavable Adhesive	7.1	850
Antichafe Coating	5.5	660
Bearing Coating	5.2	620
Caulking and Smoothing Compounds	7.1	850
Chemical Agent-Resistant Coating	4.6	550
Clear Coating	6.0	720
Commercial Exterior Aerodynamic Structure Primer	5.4	650
Compatible Substrate Primer	6.5	780
Corrosion Prevention Compound	5.9	710
Cryogenic Flexible Primer	5.4	645
Cryoprotective Coating	5.0	600
Dry Lubricative Material	7.3	880
Electric or Radiation-Effect Coating	6.7	800
Electrostatic Discharge and Electromagnetic Interference (EMI) Coating	6.7	800
Elevated Temperature Skydrol Resistant Commercial Primer	6.2	740
Epoxy Polyamide Topcoat	5.5	660
Fire-Resistant (interior) Coating	6.7	800
Flexible Primer	5.3	640
Flight-Test Coatings:		
Missile or Single Use Aircraft	3.5	420
All Others	7.0	840
Fuel-Tank Coating	6.0	720
High-Temperature Coating	7.1	850
Insulation Covering	6.2	740
Intermediate Release Coating	6.3	750
Lacquer	6.9	830
Maskant:		
Bonding Maskant	10.3	1230
Critical Use and Line Sealer Maskant	8.5	1020
Seal Coat Maskant	10.3	1230
Metallized Epoxy Coating	6.2	740
Mold Release	6.5	780
Optical Anti-Reflective Coating	6.3	750
Part Marking Coating	7.1	850
Pretreatment Coating	6.5	780
Rain Erosion-Resistant Coating	7.1	850
Rocket Motor Nozzle Coating	5.5	660
Scale Inhibitor	7.3	880
Screen Print Ink	7.0	840
Sealants:		
Extrudable/Rollable/Brushable Sealant	2.3	280
Sprayable Sealant	5.0	600
Silicone Insulation Material	7.1	850
Solid Film Lubricant	7.3	880
Specialized Function Coating	7.4	890
Temporary Protective Coating	2.7	320
Thermal Control Coating	6.7	800
Wet Fastener Installation Coating	5.6	675
Wing Coating	7.1	850

4. 5.2 pounds per gallon (620 grams per liter) of coating, excluding water and exempt solvents, delivered to a coating applicator that applies Type I chemical milling maskant; and

5. 1.3 pounds per gallon (150 grams per liter) of coating, excluding water and exempt solvents, delivered to a coating applicator that applies Type II chemical milling maskants.

(B) The emission limitations in subsection (3)(A) of this rule shall be achieved by—

1. The application of low solvent coating technology where each and every coating meets the specified applicable limitation expressed in pounds of VOC per gallon of coating, excluding water and exempt solvents, stated in subsection (3)(A) of this rule;

2. The application of low solvent coating technology where the monthly volume-weighted average VOC content of each specified coating type meets the specified applicable limitation expressed in pounds of VOC per gallon of coating, excluding water and exempt solvents, stated in subsection (3)(A) of this rule; averaging is not allowed for specialty coatings, and averaging is not allowed between primers, topcoats (including self-priming topcoats), Type I milling maskants, and Type II milling maskants or any combination of the above coating categories; or

3. Control equipment, including but not limited to incineration, carbon adsorption and condensation, with a capture system approved by the director, provided that the owner or operator demonstrates, in accordance with subsection (5)(C), that the control system has a VOC reduction efficiency of eighty-one percent (81%) or greater.

(C) Each owner or operator of an aerospace manufacturing and/or rework operation shall apply all non-exempt primers and topcoats using one (1) or more of the application techniques specified below—

1. Flow/curtain application;
2. Dip coat application;
3. Roll coating;
4. Brush coating;
5. Cotton-tipped swab application;
6. Electrodeposition (dip) coating;
7. HVLP spraying;
8. Electrostatic spray application; or
9. Other coating application methods that achieve emission reductions equivalent to HVLP or electrostatic spray application methods, as determined by the director.

(D) Each owner or operator of an aerospace manufacturing and/or rework operation shall ensure that all application devices used to apply primers and topcoats (including self-priming topcoats) are operated according to company procedures, local specified operating procedures, and/or the manufacturer's specifications, whichever is most stringent, at

all times. Equipment modified by the owner or operator shall maintain a transfer efficiency equivalent to HVLP or electrostatic spray application techniques.

(E) Each owner or operator of an aerospace manufacturing and/or rework operation shall comply with the following house-keeping requirements for any affected cleaning operation, unless the cleaning solvent used is an aqueous cleaning solvent, low vapor pressure hydrocarbon-based cleaning solvent, or contains less than one percent (1%) VOC by weight:

1. Solvent-laden cloth, paper, or any other absorbent applicators used for cleaning shall be placed in bags or other closed containers upon completing their use. These bags and containers must be kept closed at all times except when depositing or removing these materials from the container. The bags and containers used must be of such a design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement;

2. All fresh and spent cleaning solvents, except semi-aqueous solvent cleaners, used in aerospace cleaning operations shall be stored in closed containers; and

3. The handling and transfer of cleaning solvent to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh spent cleaning solvents shall be conducted in such a manner that spills are minimized.

(F) Each owner or operator of an aerospace manufacturing and/or rework operation utilizing hand-wipe cleaning operations excluding the cleaning of spray gun equipment performed in accordance with subsection (3)(G) shall comply with one (1) of the following:

1. Utilize cleaning solvent solutions that are classified as an aqueous cleaning solvent and/or a low vapor pressure hydrocarbon-based cleaning solvent; or

2. Utilize cleaning solvent solutions that have a composite vapor pressure of forty-five (45) mmHg or less at twenty degrees Celsius (20°C).

(G) Each owner or operator of an aerospace manufacturing and/or rework operation shall clean all spray guns used in the application of primers, topcoats (including self-priming topcoats), and specialty coatings utilizing one or more of the following techniques:

1. Enclosed system. Spray guns shall be cleaned in an enclosed system that is closed at all times except when inserting or removing the spray gun. Cleaning shall consist of forcing cleaning solvent through the gun. If

leaks in the system are found, repairs shall be made as soon as practicable, but no later than fifteen (15) days after the leak was found. If the leak is not repaired by the fifteenth day after detection, the cleaning solvent shall be removed and the enclosed cleaner shall be shut down until the leak is repaired or its use is permanently discontinued;

2. Nonatomized cleaning. Spray guns shall be cleaned by placing cleaning solvent in the pressure pot and forcing it through the gun with the atomizing cap in place. No atomizing air is to be used. The cleaning solvent from the spray gun shall be directed into a vat, drum, or other waste container that is closed when not in use;

3. Disassembled spray gun cleaning. Spray guns shall be cleaned by disassembling and cleaning the components by hand in a vat, which shall remain closed at all times except when in use. Alternatively, the components shall be soaked in a vat, which shall remain closed during the soaking period and when not inserting or removing components; and

4. Atomizing cleaning. Spray guns shall be cleaned by forcing the cleaning solvent through the gun and directing the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions.

(H) Each owner or operator of an aerospace manufacturing and/or rework operation that includes a flush cleaning operation shall empty the used cleaning solvents each time aerospace parts or assemblies, or components of a coating unit with the exception of spray guns are flush cleaned into an enclosed container or collection system that is kept closed when not in use or into a system with equivalent emission control approved by the director. Aqueous, semi-aqueous, and low vapor pressure hydrocarbon-based solvent materials are exempt from the requirements of this section.

(I) The following activities are exempt from this section:

1. Research and development;
2. Quality control;
3. Laboratory testing activities;
4. Chemical milling;
5. Metal finishing;
6. Electrodeposition except for the electrodeposition of paints;

7. Composites processing except for cleaning and coating of composite parts or components that become part of an aerospace vehicle or component as well as composite tooling that comes in contact with such composite parts or components prior to cure;

8. Electronic parts and assemblies except for cleaning and topcoating of completed assemblies;

9. Manufacture of aircraft transparencies;

10. Wastewater treatment operations;

11. Manufacturing and rework of parts and assemblies not critical to the vehicle's structural integrity or flight performance;

12. Regulated activities associated with space vehicles designed to travel beyond the limit of the earth's atmosphere, including but not limited to satellites, space stations, and the space shuttle;

13. Utilization of primers, topcoats, specialty coatings, cleaning solvents, chemical milling maskants, and strippers containing VOC at concentrations less than 0.1 percent for carcinogens or 1.0 percent for noncarcinogens;

14. Utilization of touch-up, aerosol can, and Department of Defense classified coatings;

15. Maintenance and rework of antique aerospace vehicles and components; and

16. Rework of aircraft or aircraft components if the holder of the Federal Aviation Administration design approval, or the holder's licensee, is not actively manufacturing the aircraft or aircraft components.

(J) The requirements for primers, topcoats, specialty coatings, and chemical milling maskants specified in subsection (3)(A) of this rule do not apply to the use of low-volume coatings in these categories for which the rolling twelve (12)-month total of each separate formulation used at an installation does not exceed fifty (50) gallons, and the combined rolling twelve (12)-month total of all such primers, topcoats, specialty coatings, and chemical milling maskants used does not exceed two hundred (200) gallons. Coatings exempted under subsection (3)(I) of this rule are not included in the fifty (50)- and two hundred (200)-gallon limits.

(K) The following situations are exempt from the requirements of subsections (3)(D) and (3)(E) of this rule:

1. Any situation that normally requires the use of an airbrush or an extension on the spray gun to properly reach limited access spaces;

2. The application of any specialty coating;

3. The application of coatings that contain fillers that adversely affect atomization with HVLP spray guns and that cannot be applied by any of the application methods specified in subsection (3)(C) of this rule;

4. The application of coatings that normally have dried film thickness of less than 0.0013 centimeter (0.0005 in.) and that can-

not be applied by any of the application methods specified in subsection (3)(C) of this rule;

5. The use of airbrush application methods for stenciling, lettering, and other identification markings;

6. The use of hand-held spray can application methods; and

7. Touch-up and repair operations.

(L) The following cleaning operations are exempt from the requirements of subsection (3)(F) of this rule:

1. Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;

2. Cleaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

3. Cleaning and surface activation prior to adhesive bonding;

4. Cleaning of electronic parts and assemblies containing electronic parts;

5. Cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid including air-to-air heat exchangers and hydraulic fluid systems;

6. Cleaning of fuel cells, fuel tanks, and confined spaces;

7. Surface cleaning of solar cells, coating optics, and thermal control surfaces;

8. Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used in the interior of the aircraft;

9. Cleaning of metallic and non-metallic materials used in honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture or maintenance of aerospace vehicles or components;

10. Cleaning of aircraft transparencies, polycarbonate, or glass substrates;

11. Cleaning and solvent usage associated with research and development, quality control, and laboratory testing;

12. Cleaning operations, using non-flammable liquids, conducted within five feet (5') of energized electrical systems; and

13. Cleaning operations identified as essential uses under the Montreal Protocol for which the U.S. Environmental Protection Agency has allocated essential use allowances or exemptions.

(4) Reporting and Record Keeping.

(A) Monitoring Requirements—Each owner or operator of an aerospace manufac-

turing and/or rework operation shall submit a monitoring plan to the director that specifies the applicable operating parameter value, or range of values, to ensure ongoing compliance with paragraph (3)(B)3. of this rule. Any monitoring device, required by the monitoring plan, shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications.

(B) Record Keeping Requirements.

1. Each owner or operator of an aerospace manufacture and/or rework operation that applies coatings listed in subsection (3)(A) of this rule shall—

A. Maintain a current list of coatings in use with category and VOC content as applied;

B. Record each coating volume usage on a monthly basis; and

C. Maintain records of monthly volume-weighted average VOC content for each coating type included in averaging for coating operations that achieve compliance through coating averaging under paragraph (3)(B)2. of this rule.

2. Each owner or operator of an aerospace manufacture and/or rework operation that uses cleaning solvents subject to this rule shall—

A. Maintain a list of materials with corresponding water contents for aqueous and semi-aqueous hand-wipe cleaning solvents;

B. Maintain a current list of cleaning solvents in use with their respective vapor pressure or, for blended solvents, VOC composite vapor pressure for all vapor pressure compliant hand-wipe cleaning solvents. This list shall include the monthly amount of each applicable solvent used; and

C. Maintain a current list of exempt hand-wipe cleaning processes for all cleaning solvents with a vapor pressure greater than forty-five (45) mmHg used in exempt hand-wipe cleaning operations. This list shall include the monthly amount of each applicable solvent used.

D. All records must be kept on-site for a period of five (5) years and made available to the department upon request.

(5) Test Methods.

(A) An owner or operator of an aerospace manufacture and/or rework operation shall determine compliance for coatings which are not waterborne (water-reducible), determine the VOC content of each formulation less water and less exempt solvents as applied using manufacturer's supplied data or Method 24 of 40 CFR part 60, Appendix A. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be



based on the results from the Method 24 analysis. For waterborne (water-reducible) coatings, manufacturer's supplied data alone can be used to determine the VOC content of each formulation.

(B) An owner or operator of an aerospace manufacture and/or rework operation shall determine compliance for cleaning solvents using the following:

1. For aqueous and semi-aqueous cleaning solvents manufacturers' supplied data shall be used to determine the water content; or

2. For hand-wipe cleaning solvents required in subsection (3)(F) of this rule, manufacturers' supplied data or standard engineering reference texts or other equivalent methods shall be used to determine the vapor pressure or VOC composite vapor pressure for blended cleaning solvents.

(C) An owner or operator of an aerospace manufacture and/or rework operation electing to demonstrate compliance with this rule by use of control equipment meeting the requirements of paragraph (3)(B)3. of this rule, shall demonstrate the required capture efficiency in accordance with EPA methods 18, 25, and/or 25A in 40 CFR 60, Appendix A.

*AUTHORITY: section 643.050, RSMo Supp. 1999.\* Original rule filed Aug. 4, 2000, effective March 30, 2001.*

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

**10 CSR 10-2.210 Control of Emissions From Solvent Metal Cleaning**

*PURPOSE: This regulation specifies equipment, operating procedures and training requirements for the reduction of hydrocarbon emissions from solvent metal cleaning operations in the Kansas City metropolitan area.*

(1) Application.

(A) This rule shall apply throughout Clay, Jackson and Platte Counties.

(B) This rule shall apply to all installations which emit volatile organic compounds (VOC) from solvent metal cleaning or degreasing operations.

(C) This rule applies to all processes which use cold cleaners, open-top vapor degreasers or conveyORIZED degreasers, using nonaqueous solvents to clean and remove soils from metal surfaces.

(2) Definitions.

(A) Airless cleaning system—A degreasing machine that is automatically operated and

seals at a differential pressure of 25 torr (0.475 pounds per square inch (psi)) or less, prior to the introduction of solvent vapor into the cleaning chamber and maintains differential pressure under vacuum during all cleaning and drying cycles.

(B) Air-tight cleaning system—A degreasing machine that is automatically operated and seals at a differential pressure no greater than 0.5 pounds per square inch gauge (psig) during all cleaning and drying cycles.

(C) Aqueous solvent—Any solvent consisting of sixty percent (60%) or more by volume water with a flashpoint greater than ninety-three degrees Celsius (93°C) and is miscible with water.

(D) Electronic components—All portions of an electronic assembly, including, but not limited to, circuit board assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and associated electronic component manufacturing equipment such as screens and filters.

(E) Freeboard area—The air space in a batch-load cold cleaner that extends from the liquid surface to the top of the tank.

(F) Freeboard height—

1. The distance from the top of the solvent to the top of the tank for batch-loaded cold cleaners;

2. The distance from the air-vapor interface to the top of the tank for open-top vapor degreasers; or

3. The distance from either the air-solvent or air-vapor interface to the top of the tank for conveyORIZED degreasers.

(G) Freeboard ratio—The freeboard height divided by the smaller of either the inside length or inside width of the degreaser.

(H) Medical device—An instrument, apparatus, implement, machine, contrivance, implant, *in vitro* reagent or other similar article, including any component or accessory that meets one (1) of the following conditions:

1. It is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease;

2. It is intended to affect the structure or any function of the body; or

3. It is defined in the *National Formulary* or the *United States Pharmacopoeia*, or any supplement to them.

(I) 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) No person shall cause or allow solvent metal cleaning or degreasing operation—

1. Without adhering to operating procedures as contained in this rule and to recommendations by the equipment manufacturer;

2. Without the minimum operator and supervisor training as specified in this rule; and

3. Unless the equipment conforms to the specifications listed in this rule.

(B) Equipment Specifications.

1. Cold cleaners.

A. After August 30, 2002—

(I) No owner or operator shall allow the operation of any cold cleaner using a cold cleaning solvent with a vapor pressure greater than 2.0 millimeters of Mercury (mmHg) (0.038 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)) unless the cold cleaner is used for carburetor cleaning;

(II) No supplier of cold cleaning solvents shall sell or offer for sale any cold cleaning solvent with a vapor pressure greater than 2.0 mmHg (0.038 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)) for use within Clay, Jackson and Platte Counties unless the cold cleaning solvent is used for carburetor cleaning;

(III) No owner or operator shall allow the operation of any cold cleaner using a cold cleaning solvent for the purpose of carburetor cleaning with a vapor pressure greater than 7.0 mmHg (0.133 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)); and

(IV) No supplier of cold cleaning solvents shall sell or offer for sale any cold cleaning solvent for the purpose of carburetor cleaning with a vapor pressure greater than 7.0 mmHg (0.133 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)) for use within Clay, Jackson and Platte Counties.

B. After August 30, 2003—

(I) No owner or operator shall operate or allow the operation of any cold cleaner using a cold cleaning solvent with a vapor pressure greater than 1.0 mmHg (0.019 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)) unless the cold cleaner is used for carburetor cleaning;

(II) No supplier of cold cleaning solvents shall sell or offer for sale any cold cleaning solvent with a vapor pressure greater than 1.0 mmHg (0.019 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)) for use within Clay, Jackson and Platte Counties unless the cold cleaning solvent is used for carburetor cleaning;

(III) No owner or operator shall allow the operation of any cold cleaner using

a cold cleaning solvent for the purpose of carburetor cleaning with a vapor pressure greater than 5.0 mmHg (0.095 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)); and

(IV) No supplier of cold cleaning solvents shall sell or offer for sale any cold cleaning solvent for the purpose of carburetor cleaning with a vapor pressure greater than 5.0 mmHg (0.095 psi) at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)) for use within Clay, Jackson and Platte Counties.

C. Exemptions.

(I) Sales of cold cleaning solvents in quantities of five (5) gallons or less shall be exempt from the requirements of parts (3)(B)1.A.(II), (3)(B)1.A.(IV), (3)(B)1.B.(II) and (3)(B)1.B.(IV) of this rule.

(II) The cleaning of electronic components shall be exempt from the requirements of parts (3)(B)1.A.(I) and (3)(B)1.B.(I) of this rule.

(III) Solvent cleaning operations which meet the emission control requirements of 10 CSR 10-2.230, 10 CSR 10-2.290 and 10 CSR 10-2.340 shall be exempt from the requirements of parts (3)(B)1.A.(I) and (3)(B)1.B.(I) of this rule.

(IV) Cold cleaners using aqueous solvents shall be exempt from the requirements of parts (3)(B)1.A.(I), (3)(B)1.A.(III), (3)(B)1.B.(I) and (3)(B)1.B.(III) of this rule.

(V) Cold cleaners using solvents regulated under any federal National Emission Standard for Hazardous Air Pollutants shall be exempt from the requirements of parts (3)(B)1.A.(I), (3)(B)1.A.(III), (3)(B)1.B.(I) and (3)(B)1.B.(III) of this rule.

(VI) Any cold cleaner with a liquid surface area of one (1) square foot or less or a maximum capacity of one (1) gallon or less shall be exempt from the requirements of parts (3)(B)1.A.(I) and (3)(B)1.B.(I) of this rule.

(VII) The cleaning of medical and optical devices shall be exempt from the requirements of parts (3)(B)1.A.(I) and (3)(B)1.B.(I) of this rule.

(VIII) Air-tight or airless cleaning systems shall be exempt from the requirements of parts (3)(B)1.A.(I) and (3)(B)1.B.(I) of this rule if the following requirements are met.

(a) The equipment is operated in accordance with the manufacturer's specifications and operated with a door or other pressure sealing apparatus that is in place during all cleaning and drying cycles.

(b) All waste solvents are stored in properly identified and sealed containers, and managed in compliance with the

Missouri Hazardous Waste Management Commission rules codified at 10 CSR 25, as applicable. All associated pressure relief devices shall not allow liquid solvents to drain out.

(c) Spills during solvent transfer shall be wiped up immediately or managed in compliance with the Missouri Hazardous Waste Commission rules codified at 10 CSR 25, as applicable, and the used wipe rags shall be stored in closed containers.

(d) A differential pressure gauge shall be installed to indicate the sealed chamber pressure.

(IX) Janitorial and institutional cleaning shall be exempt from the requirements of parts (3)(B)1.A.(I) and (3)(B)1.B.(I) of this rule.

(X) Paint spray gun and nozzle cleaning machines with the exception of remote open top spray gun cleaning machines shall be exempt from the requirements of parts (3)(B)1.A.(I) and (3)(B)1.B.(I) of this rule. Paint spray guns and nozzles only may be cleaned in solvent-based materials capable of stripping hardened paint, provided the solvent reservoir (not to exceed five (5) gallons in size) is kept tightly covered at all times except when being accessed. All remote paint spray gun cleaning machines shall be operated within the manufacturers' specifications. All remote closed top spray gun cleaning machines shall not be operated unless the cover is closed and shall be closed or covered when not in use.

D. An owner or operator of a cold cleaner may use an alternate method for reducing cold cleaning emissions if the owner or operator shows the level of emission control is equivalent to or greater than the requirements of parts (3)(B)1.A.(I), (3)(B)1.A.(III), (3)(B)1.B.(I) and (3)(B)1.B.(III) of this rule. This alternate method must be approved by the director.

E. Each cold cleaner shall have a cover which will prevent the escape of solvent vapors from the solvent bath while in the closed position or an enclosed reservoir which will limit the escape of solvent vapors from the solvent bath whenever parts are not being processed in the cleaner.

F. When one (1) or more of the following conditions exist, the design of the cover shall be such that it can be easily operated with one (1) hand such that minimal disturbing of the solvent vapors in the tank occurs. (For covers larger than ten (10) square feet, this shall be accomplished by either mechanical assistance such as spring loading or counterweighing or by power systems):

(I) The solvent volatility is greater than 0.3 psi measured at one hundred degrees Fahrenheit (100°F), such as in mineral spirits;

(II) The solvent is agitated; or

(III) The solvent is heated.

G. Each cold cleaner shall have a drainage facility which will be internal so that parts are enclosed under the cover while draining.

H. If an internal drainage facility cannot fit into the cleaning system and the solvent volatility is less than 0.6 psi measured at one hundred degrees Fahrenheit (100°F), then the cold cleaner shall have an external drainage facility which provides for the solvent to drain back into the solvent bath.

I. Solvent sprays, if used, shall be a solid fluid stream (not a fine, atomized or shower-type spray) and at a pressure which does not cause splashing above or beyond the freeboard.

J. A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment.

K. Any cold cleaner which uses a solvent that has a solvent volatility greater than 0.6 psi measured at one hundred degrees Fahrenheit (100°F) or heated above one hundred twenty degrees Fahrenheit (120°F) must use one (1) of the following control devices:

(I) A freeboard ratio of at least 0.75;

(II) Water cover (solvent must be insoluble in and heavier than water); or

(III) Other control systems with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to sixty-five percent (65%). These control systems must receive approval from the director prior to their use.

2. Open-top vapor degreasers.

A. Each open-top vapor degreaser shall have a cover which will prevent the escape of solvent vapors from the degreaser while in the closed position and shall be designed to open and close easily with one (1) hand such that minimal disturbing of the solvent vapors in the tank occurs. For covers larger than ten (10) square feet, easy cover use shall be accomplished by either mechanical assistance, such as spring loading or counterweighing or by power systems.

B. Each open-top vapor degreaser shall be equipped with a vapor level safety thermostat with a manual reset which shuts off the heating source when the vapor level rises above the cooling or condensing coil, or an equivalent safety device approved by the director.

C. Each open-top vapor degreaser with an air/vapor interface over ten and three-fourths (10 3/4) square feet shall be equipped with at least one (1) of the following control devices:

(I) A freeboard ratio of at least 0.75;

(II) A refrigerated chiller;

(III) An enclosed design (the cover or door opens only when the dry part actually is entering or exiting the degreaser);

(IV) A carbon adsorption system with ventilation of at least fifty (50) cubic feet per minute per square foot of air vapor area when the cover is open and exhausting less than twenty-five parts per million (25 ppm) of solvent by volume averaged over one (1) complete adsorption cycle as measured using the reference method specified at 10 CSR 10-6.030(14)(A); or

(V) A control system with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to sixty-five percent (65%) and prior approval by the director.

D. A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment.

3. ConveyORIZED degreasers.

A. Each conveyORIZED degreaser shall have a drying tunnel or rotating (tumbling) basket or other means demonstrated to have equal to or better control which shall be used to prevent cleaned parts from carrying out solvent liquid or vapor.

B. Each conveyORIZED degreaser shall have the following safety switches or equivalent safety devices approved by the director which operate if the machine malfunctions:

(I) A vapor level safety thermostat with manual reset which shuts off the heating source when the vapor level rises just above the cooling or condensing coil; and

(II) A spray safety switch, which shuts off the spray pump if the vapor level in the spray chamber drops four inches (4"), for conveyORIZED degreasers utilizing a spray chamber.

C. Entrances and exits shall silhouette workloads so that the average clearance between parts and the edge of the degreaser opening is less than four inches (4") or less than ten percent (10%) of the width of the opening.

D. Covers shall be provided for closing off the entrance and exit during hours when the degreaser is not being used.

E. A permanent, conspicuous label summarizing the operating procedures shall be affixed to the equipment.

F. If the air/vapor interface is larger than twenty-one and one-half (21 1/2) square

feet, one (1) major control device shall be required. This device shall be one (1) of the following:

(I) A refrigerated chiller;

(II) Carbon adsorption system with ventilation of at least fifty (50) cubic feet per minute per square foot of the total entrance and exit areas (when downtime covers are open) and exhausting less than twenty-five (25) ppm of solvent by volume averaged over one (1) complete adsorption cycle as measured using the reference method specified at 10 CSR 10-6.030(14)(A); or

(III) A control system with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to sixty-five percent (65%) and prior approval by the director.

(C) Operating Procedures.

1. Cold cleaners.

A. Cold cleaner covers shall be closed whenever parts are not being handled in the cleaners or the solvent must drain into an enclosed reservoir.

B. Cleaned parts shall be drained in the freeboard area for at least fifteen (15) seconds or until dripping ceases, whichever is longer.

C. Whenever a cold cleaner fails to perform within the operating parameters established for it by this rule, the unit shall be shut down immediately and shall remain shut down until trained service personnel are able to restore operation within the established parameters.

D. Solvent leaks shall be repaired immediately or the degreaser shall be shut down until the leaks are repaired.

E. Any waste material removed from a cold cleaner shall be disposed of by one (1) of the following methods and in accordance with the Missouri Hazardous Waste Management Commission rules codified at 10 CSR 10-25, as applicable:

(I) Reduction of the waste material to less than twenty percent (20%) VOC solvent by distillation and proper disposal of the still bottom waste; or

(II) Stored in closed containers for transfer to—

(a) A contract reclamation service; or

(b) A disposal facility approved by the director.

F. Waste solvent shall be stored in covered containers only.

2. Open-top vapor degreasers.

A. The cover shall be kept closed at all times except when processing workloads through the degreaser.

B. Solvent carry-out shall be minimized in the following ways:

(I) Parts shall be racked, if practical, to allow full drainage;

(II) Parts shall be moved in and out of the degreaser at less than eleven feet (11') per minute;

(III) Workload shall remain in the vapor zone at least thirty (30) seconds or until condensation ceases;

(IV) Pools of solvent shall be removed from cleaned parts before removing parts from the degreaser freeboard area; and

(V) Cleaned parts shall be allowed to dry within the degreaser freeboard area for at least fifteen (15) seconds or until visually dry, whichever is longer.

C. Porous or absorbent materials such as cloth, leather, wood or rope shall not be degreased.

D. If workloads occupy more than half of the degreaser's open-top area, rate of entry and removal shall not exceed five feet (5') per minute.

E. Spray shall never extend above vapor level.

F. Whenever an open-top vapor degreaser fails to perform within the operating parameters established for it by this rule, the unit shall be shut down until trained service personnel are able to restore operation within the established parameters.

G. Solvent leaks shall be repaired immediately or the degreaser shall be shut down until the leaks are repaired.

H. Ventilation exhaust shall not exceed sixty-five (65) cubic feet per minute per square foot of degreaser open area unless proof is submitted that it is necessary to meet Occupational Safety and Health Administration (OSHA) requirements. Fans shall not be used near the degreaser opening.

I. Water shall not be visually detectable in solvent exiting the water separator.

J. Any waste material removed from an open-top vapor degreaser shall be disposed of by one (1) of the following methods or equivalent and in accordance with the Missouri Hazardous Waste Management Commission rules codified at 10 CSR 10-25, as applicable:

(I) Reduction of the waste material to less than twenty percent (20%) VOC solvent by distillation and proper disposal of the still bottom waste; or

(II) Stored in closed containers for transfer to—

(a) A contract reclamation service; or

(b) A disposal facility approved by the director.

K. Waste solvent shall be stored in closed containers only.



3. Conveyorized degreasers.

A. Ventilation exhaust shall not exceed sixty-five (65) cubic feet per minute per square foot of degreaser opening unless proof is submitted that it is necessary to meet OSHA requirements. Fans shall not be used near the degreaser opening.

B. Solvent carry-out shall be minimized in the following ways:

(I) Parts shall be racked, if practical, to allow full drainage; and

(II) Vertical conveyor speed shall be maintained at less than eleven feet (11') per minute.

C. Whenever a conveyorized degreaser fails to perform within the operating parameters established for it by this rule, the unit shall be shut down immediately and shall remain shut down until trained service personnel are able to restore operation within the established parameters.

D. Solvent leaks shall be repaired immediately or the degreaser shall be shut down until the leaks are repaired.

E. Water shall not be visually detectable in solvent exiting the water separator.

F. Covers shall be placed over entrances and exits immediately after conveyor and exhaust are shut down and removed just before they are started up.

G. Waste solvent shall be stored in closed containers only.

H. Any waste material removed from a conveyorized degreaser shall be disposed of by one (1) of the following methods or equivalent and in accordance with the Missouri Hazardous Waste Management Commission rules codified at 10 CSR 10-25, as applicable:

(I) Reduction of the waste material to less than twenty percent (20%) VOC solvent by distillation and proper disposal of the still bottom waste; or

(II) Stored in closed containers for transfer to—

(a) A contract reclamation service; or

(b) A disposal facility approved by the director.

(D) Operator and Supervisor Training.

1. Only persons trained in at least the operational and equipment requirements specified in this rule for their particular solvent metal cleaning process shall be permitted to operate the equipment.

2. The supervisor of any person who operates a solvent metal cleaning process shall receive equal or greater operational training than the operator.

3. Refresher training shall be given to all solvent metal cleaning equipment operators at least once each twelve (12) months.

4. Training records shall be maintained per subsections (4)(D) and (4)(E) of this rule.

(4) Reporting and Record Keeping.

(A) The owner or operator of a solvent metal cleaning or degreasing operation shall keep monthly inventory records of solvent types and amounts purchased and solvent consumption. These records shall include all types and amounts of solvent containing waste material transferred to either a contract reclamation service or to a disposal facility and all amounts distilled on the premises. The records also shall include maintenance and repair logs for both the degreaser and any associated control equipment. The director may require additional record keeping if necessary to adequately demonstrate compliance with this rule.

(B) After August 30, 2002, all persons subject to the requirements of parts (3)(B)1.A.(I), (3)(B)1.A.(III), (3)(B)1.B.(I), and (3)(B)1.B.(III) of this rule shall maintain records which include for each purchase of cold cleaning solvent:

1. The name and address of the solvent supplier;

2. The date of purchase;

3. The type of solvent; and

4. The vapor pressure of the solvent in mmHg at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)).

(C) After August 30, 2002, all persons subject to the requirements of parts (3)(B)1.A.(II), (3)(B)1.A.(IV), (3)(B)1.B.(II), and (3)(B)1.B.(IV) of this rule shall maintain records which include for each sale of cold cleaning solvent:

1. The name and address of the solvent purchaser;

2. The date of sale;

3. The type of solvent;

4. The unit volume of solvent;

5. The total volume of solvent; and

6. The vapor pressure of the solvent measured in mmHg at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)).

(D) A record shall be kept of solvent metal cleaning training for each employee.

(E) All records required under subsections (4)(A), (4)(B), (4)(C) and (4)(D) of this rule shall be retained for five (5) years and shall be made available to the director upon request.

(5) Test Methods. *(Not applicable)*

*AUTHORITY: section 643.050, RSMo 2000.\* Original rule filed Nov. 14, 1978, effective June 11, 1979. Amended: Filed July 1, 1987, effective Dec. 12, 1987. Amended: Filed Jan. 29, 2001, effective Oct. 30, 2001.*

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

**10 CSR 10-2.215 Control of Emissions from Solvent Cleanup Operations.**

*PURPOSE: This rule will reduce volatile organic compound (VOC) emissions from solvent cleanup operations. The RSMo 536.016 requirement for necessity evidence is the Kansas City Ozone Maintenance Plan adopted February 3, 1998, and section 182 of the Clean Air Act.*

(1) Applicability.

(A) This rule shall apply throughout Clay, Jackson and Platte counties.

(B) This rule shall apply to any person who performs or allows the performance of any cleaning operation involving the use of a VOC solvent or solvent solution. The provisions of this rule shall not apply to any stationary source at which cleaning solvent VOCs are emitted at less than five hundred (500) pounds per day. Once a source is determined to exceed the applicability level of this rule, it shall remain subject to this rule even if its actual emissions drop below the applicability level.

(C) The following cleaning operations are not subject to the provisions of this rule:

1. Cold cleaner;

2. Open top vapor degreaser;

3. Conveyorized cold cleaners;

4. Conveyorized vapor degreaser;

5. Nonmanufacturing area cleaning.

Nonmanufacturing areas include cafeterias, laboratories, pilot facilities, restrooms, and office buildings;

6. Cleaning operations for which there has been made a best available control technology, reasonably available control technology, or lowest achievable emission rate determination; and

7. Cleaning operations which are subject to the Aerospace National Emission Standards for Hazardous Air Pollutants Standards source category, under 40 CFR 63 subpart GG.

(2) Definitions.

(A) Definitions of certain terms specified in this rule may be found in 10 CSR 6.020.

(B) Simple mass balance equation (SMBE) for the purposes of this rule is a summation

of the vapor amounts that equal the total weight of liquid solvent in the system minus the weight of liquid solvent in the used category.

$$V_e = S_i - S_o(1 - X_{ci})(1 - C_{ei})$$

Where

$V_e$  = Total weight of the evaporative loss of the VOC. (from container, the cleaning operation, the surface being cleaned, and the discard wipes and residue)

$S_i$  = Liquid VOC input weight

$S_o$  = Total liquid VOC output weight (from the cleaning operation, the surface being cleaned and the discard wipes and residue)

$X_{ci}$  = Total weight fraction of the contaminants (in the wipes and liquid residue)

$C_{ei}$  = Total weight fraction due to control of VOCs attributed to add on emission control device(s). Note  $C_{ei}$  will be zero (0) if not applicable.

(3) General Provisions.

(A) Any person performing any industrial cleaning operation, not excluded in subsection (1)(B) or (1)(C) of this rule, involving the use of a VOC solvent or solvent solution shall demonstrate a thirty percent (30%) reduction in plant-wide industrial VOC cleaning solvent emissions as described in subsection (3)(B) of this rule by May 1, 2003.

(B) Solvent Emission Reduction. The following provisions shall apply to any stationary source subject to subsection (3)(A) of this rule:

1. A thirty percent (30%) emission reduction shall be based on the average of the summation of the emissions in 1997 and 1998 or shall be based on total VOC emissions from plant-wide solvent cleanup operations divided by units produced in 1997 and 1998. If the owner/operator demonstrates that 1997 and 1998 are not representative production years, then a demonstration shall be made to the agency that other years are more representative for purposes of comparison or for prorating cleaning solvent usage. The following applicable documentation of actions and associated emission reductions shall be sent to the department for approval by December 1, 2002:

- A. Changes in cleaning solvents used;
- B. Changes in work practices; and
- C. Changes in equipment or processes; and

2. The changes described in paragraph (3)(B)1. of this rule shall remain in effect until other changes resulting in greater, or

equal, VOC emission reductions from the cleaning operations are implemented.

(4) Reporting and Record Keeping. The person responsible for industrial cleaning operations at an affected facility seeking to comply with subsection (3)(A) of this rule shall keep records of information sufficient for the calculation of emissions from each Unit Operation System (UOS) from the use of industrial cleaning solvents. A UOS consists of an industrial cleaning operation around which all organic solvent usage, disposal and fugitive losses may be calculated using a SMBE. As an aid to compliance with this section, records for industrial cleaning UOSs may include one (1) or more of the following:

(A) Engineering drawings or sketches of all UOSs used to define industrial cleaning operations within the facility, including a system boundary, organic solvent input(s), organic solvent output(s), and organic solvent evaporative loss points. These drawings shall include each of the following:

1. Labeled boxes within the system boundary which describe all components of the UOS, including any virgin solvent containers, solvent applicators, used solvent containers, and the surface being cleaned;

2. Numbered or lettered arrows depicting liquid and/or evaporative solvent flow, accurate with respect to relative mass flow rates in and out of the system boundary; and

3. Arrows depicting all organic solvent pathways within the system boundary;

(B) One (1) accurate SMBE for each UOS depicted in subsection (4)(A) of this rule. Each equation shall have variables consistent with those used to define the corresponding UOS and shall be solved for total VOC emissions for the UOS;

(C) Any assumptions or approximations made in defining the UOSs; and

(D) Records shall be retained by the owner or operator for a minimum of five (5) years. These records shall be made available to the representatives of the department upon request.

(5) Test Methods. (Not Applicable)

*AUTHORITY: section 643.050, RSMo Supp. 1999.\* Original rule filed Aug. 30, 2000, effective May 30, 2001.*

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

**10 CSR 10-2.220 Liquefied Cutback Asphalt Paving Restricted**

*PURPOSE: This regulation restricts volatile organic compounds emissions from cutback asphalt paving operations.*

(1) Application.

(A) This regulation shall apply only in Clay, Jackson and Platte Counties.

(B) This regulation limits the use or application of liquefied cutback asphalt in paving and maintenance operations on highways, roads, parking lots and driveways.

(2) General. After December 31, 1982, no person may cause or permit the use or application of liquefied cutback asphalts on highways, roads, parking lots and driveways during the months of April, May, June, July, August, September and October except as permitted in section (3). This section refers to liquefied cutback asphalt which is directly applied or used in a plant-mix or road-mix.

(3) Exceptions. The use or application of liquefied cutback asphalts is permitted if the liquefied cutback asphalt is—

(A) Used in a plant-mix or road-mix which is used solely for filling potholes or for emergency repairs;

(B) Used to produce a plant-mix manufactured for resale or for use outside Clay, Jackson and Platte Counties; or

(C) To be used solely as an asphalt prime coat or an asphalt seal coat on absorbent surfaces.

(4) Recordkeeping.

(A) Records shall be kept on all application uses and all production quantities sufficient to determine daily volatile organic compound emissions for the months of April, May, June, July, August, September and October.

(B) Liquefied cutback asphalt plants shall keep records of the quantities of liquefied cutback asphalt sold and who the purchasers are. The owner, operator or user shall record all information derived for a period of not less than two (2) years and all those records shall be made available to the director upon his/her request.

*AUTHORITY: section 643.050, RSMo 1986.\* Original rule filed Nov. 14, 1978, effective July 12, 1979. Amended: Filed Jan. 3, 1991, effective Aug. 30, 1991.*

*\*Original authority 1965, amended 1972, transferred from 203.050 in 1986, 1992, 1993.*

**10 CSR 10-2.230 Control of Emissions From Industrial Surface Coating Operations**

*PURPOSE: This regulation restricts volatile organic compound emissions from industrial surface coating operations.*

*Editor's Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.*

**(1) Application.**

(A) This regulation shall apply only in Clay, Jackson and Platte Counties.

(B) This regulation shall apply to any installation with an uncontrolled potential to emit greater than 6.8 kilograms per day (kg/day) or 2.7 tons per year of volatile organic compounds (VOC) from industrial surface coating operations covered under this rule. This includes any installation which does not have an allowable VOC emission limit established under 10 CSR 10-6.060 or legally enforceable state implementation plan revision and has uncontrolled potential emissions greater than or equal to 6.8 kg/day or 2.7 tons per year. The uncontrolled potential emit is the potential emissions (as defined) plus the VOC removed by emission control devices.

(C) This regulation is not applicable to the surface coating of the following metal parts and products:

1. Exterior refinishing of airplanes;
2. Automobile refinishing;
3. Customizing top coating of automobiles and trucks, if production is less than thirty-five (35) vehicles per day; and
4. Exterior of marine vessels.

(2) Definitions of certain terms specified in this regulation may be found in 10 CSR 10-6.020.

(3) General Provisions. No person shall emit to the atmosphere any VOC from any surface coating operation in excess of the amount allowed in section (4). This section will apply across all application areas, flash-off areas and ovens used in an affected coating operation.

(4) Tables of Emission Limitations and Dates of Compliance.

(A) Table A: VOC Emission Limits Based on Solids Applied.

Surface Coating Operations	Emission Limit # VOC/gal Solids Applied	Dates of Compliance (See Note 1)
Auto/light duty truck		
*Ford Motor Company		
Primer Surfacer	15.1	12/24/87
Topcoat (passenger)	15.1	12/31/88
Topcoat (truck)		
(See Note 2)	15.1	12/31/88
General Motors Car		
Primer Surfacer	15.1	12/31/87
Topcoat	15.1	12/31/87

(B) Table B: VOC Emission Limits Based on Weight of VOC per Gallon of Coating (minus water and non-VOC organic compounds).

Surface Coating Operation	Emission Limit VOC/gal Coating (minus water) and non-VOC Organic Compounds	Dates of Compliance (See Note 1)
Large Appliance		
*Topcoat	2.8	12/31/81
Final Repair	6.5	12/31/81
Magnet wire	1.7	12/31/81
Metal furniture	3.0	12/31/81
Auto/light duty truck		
Ford Motor Company		
Electrocoat prime	1.2	12/31/82
Topcoat (truck)	3.6	12/31/85
Topcoat (passenger)	3.6	12/31/86
Final Repair	4.8	12/31/85
Miscellaneous		
Metal Parts—		
Extreme Performance and Air-Dried Coatings	3.5	12/31/82

Surface Coating Operation	Emission Limit VOC/gal Coating (minus water) and non-VOC Organic Compounds	Dates of Compliance (See Note 1)
All Other Coatings	3.0	12/31/82
General Motors Car		
Cathodic Electrocoat	1.2	12/31/82
Primer Surfacer	3.0	12/31/80
Topcoat	5.8	12/31/79
	5.0	12/31/81
Final Repair	6.5	7/01/79
	4.8	12/31/87
Plastic Fascia Topcoat	4.5	11/23/87
Miscellaneous		
Metal Parts—		
Extreme Performance and Air-Dried Coatings	3.5	12/31/82
All Other Coatings	3.0	12/31/82
Paper	2.9	12/31/81
Vinyl	3.8	12/31/81
Fabric	2.9	12/31/81
Coil	2.6	12/31/81
Can		
2 piece exterior, sheet basecoat	4.0	12/31/82
	2.8	12/31/85
2 and 3 piece interior body spray	4.2	12/31/82

2 piece end exterior	4.2	12/31/82
3 piece side seam	5.5	12/31/82
End Seal Compound	4.2	12/31/82
	3.7	12/31/85
Railroad Cars, Farm Implements, Machinery and Heavy Duty Trucks	3.5	12/31/82
Other Metal Parts		
Clear Coat	4.3	12/31/82
Extreme Performance Coat and Air-Dried Coating	3.5	12/31/82
Other Coatings	3.0	12/31/82

*Note 1—The emission limit associated with the latest compliance date for each surface coating process supersedes interim emission limits associated with earlier compliance dates.*

*Note 2—A formal commitment submitted to and received by the director prior to 12/31/88 to construct or modify the truck topcoat surface coating operation no later than 12/31/90 to meet the provisions of 10 CSR 10-6.070 or 40 CFR 60 Subpart MM, whichever is more stringent, may be substituted for this emission limitation. The emission limit specified by the rules referenced in this note is 12.3 lbs. VOC per gallon of solids applied.*

(5) Determination of Compliance. Compliance with section (4) of this regulation shall be determined by the methods in subsections (5)(A)–(C) as applicable and appropriate.

(A) For subsection (4)(A), the calculation of daily volume-weighted emission performance for automobile and light-duty truck primer-surfacer and topcoat operations, shall be made according to procedures detailed in the Environmental Protection Agency (EPA) document entitled *Protocol for Determining the Daily Volatile Organic Compound Emission Rate for Automobile and Light Duty Truck Topcoat Operations* dated June 10, 1988.

(B) For subsection (4)(B)—

1. Compliance with emission limits may be demonstrated using the method referenced in 10 CSR 10-6.030(14)(C) using the one (1)-hour bake. Emission performance shall be on the basis of a daily volume-weighted average of all coatings used in each surface coating operation as delivered to the coating applicator(s) on a coating line. The daily volume-weighted average (DAVG<sub>vw</sub>) is calculated by the following formula:

$$DAVG_{vw} = \frac{\sum_{i=1}^n (A_i \times B_i)}{C}$$

Where: A = daily gal. each coating used (minus water and exempt solvents) in a surface coating operation.





B=lbs. VOC/gal coating (minus water and exempt solvents).

C=total daily gal. coating used (minus water and exempt solvents) in a surface coating operation.

n=number of all coating used in a surface coating operation;

or

2. Compliance with the emission limits in subsection (4)(B) may be demonstrated on pounds of VOC per gallon of coating solids basis. The demonstration is made by first converting the emission limit in subsection (4)(B) to pounds of VOC per gallon of coating solids as shown in the following three (3) steps:

$$1) \frac{\text{lbs. VOC per gallon of coating minus water \& exempt solvents}}{7.36 \text{ lbs. per gallon}} = \frac{\text{(Emission Limit from (4)(B))}}{\text{(average density of solvents used to originally establish the emission limit)}}$$

$$2) 1 - \text{Volume fraction of VOC} = \text{Volume fraction of solids}$$

$$3) \frac{\text{lbs. VOC per gallon of coating minus water \& exempt solvents}}{\text{Volume fraction of solids}} = \frac{\text{(Emission Limit from (4)(B))}}{\text{lbs. VOC gallon of coating solids}}$$

This value is the new compliance figure. The VOC per gallon of coating solids for each coating used is then determined using the method referenced in 10 CSR 10-6.030(14)(C) using the one (1)-hour bake. The composite daily volume-weighted average of pounds of VOC per gallon of coating solids as tested for in the actual coatings used is compared to the new compliance figure. Source operations on a coating line using coatings with a composite actual daily volume-weighted average value less than or equal to the new compliance figure are in compliance with this regulation.

(C) As an alternative to the methods specified in subsections (5)(A) and (B), compliance with the emission limits specified in subsections (4)(A) and (B) may be demonstrated by the implementation of an emission reduction equivalency compliance plan which utilizes a daily weighted average of emissions from a single or combination of source operations provided that—

1. All source operations involved in the plan are subject to the emission limits of this regulation;
2. All source operations are part of the same installation;

3. The total actual VOC emissions for each twenty-four (24)-hour period do not exceed the sum of the allowable emissions determined from section (4) for each source operation for the same period;

4. Equivalent emission reductions are accomplished in the time intervals allowed in subsection (4)(B) as would be required for individual source operations;

5. After December 24, 1987, testing of raw materials, emissions, equipment, or a combination of these, must be performed prior to initiation of an alternate compliance plan to verify any equivalent emission reductions claimed. All test methods and procedures to be acceptable for use in the equivalency determination must receive prior review and must have been approved by the director. Failure to gain test method and procedure approval of the director will invalidate the equivalency claim; and

6. The overall plan is approved by the director.

(6) Recordkeeping.

(A) The owner or operator of a coating line shall keep records detailing specific VOC sources, as necessary to determine compliance. These may include:

1. The type and the quantity of coatings used daily;
2. The coating manufacturer's formulation data for each coating on forms provided or approved by the director;
3. The type and quantity of solvents for coating, thinning, purging and equipment cleaning used daily;
4. All test results to determine capture and control efficiencies, transfer efficiencies and coating makeup;
5. The type and quantity of waste solvents reclaimed or discarded daily;
6. The quantity of pieces or materials coated daily; and
7. Any additional information pertinent to determine compliance.

(B) Records, such as daily production rates, may be substituted for actual daily coating use measurement provided the owner submits a demonstration approvable by the director that these records are adequate for the purposes of this regulation. This will apply for all surface coating industries until the EPA issues national daily emissions recordkeeping protocols for specific industrial classifications.

(C) Records required under subsections (6)(A) and (B) shall be retained by the owner or operator for a minimum of two (2) years. These records shall be made available to the director upon request.

*AUTHORITY: section 643.050, RSMo 1986.\* Original rule filed Dec. 15, 1978, effective July 12, 1979. Amended: Filed Oct. 15, 1979, effective March 13, 1980. Amended: Filed March 13, 1980, effective Sept. 12, 1980. Amended: Filed July 1, 1987, effective Dec. 24, 1987. Amended: Filed Aug. 4, 1988, effective Nov. 24, 1988.*

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

**10 CSR 10-2.240 Restriction of Emissions of Volatile Organic Compounds From Petroleum Refinery Sources**  
(Rescinded November 23, 1987)

*AUTHORITY: section 203.050, RSMo 1978. Original rule filed Dec. 15, 1978, effective June 11, 1979. Rescinded: Filed July 1, 1987, effective Nov. 23, 1987.*

**10 CSR 10-2.250 Control of Volatile Leaks From Petroleum Refinery Equipment**  
(Rescinded November 23, 1987)

*AUTHORITY: section 203.050, RSMo 1978. Original rule filed Dec. 15, 1978, effective June 11, 1979. Rescinded: Filed July 1, 1987, effective Nov. 23, 1987.*

**10 CSR 10-2.260 Control of Petroleum Liquid Storage, Loading and Transfer**

*PURPOSE: This rule restricts volatile organic compound emissions from the handling of petroleum liquids in three specific areas: petroleum storage tanks with a capacity greater than forty thousand gallons, the loading of gasoline into delivery vessels and the transfer of gasoline from delivery vessels into stationary storage containers. Exemptions are provided for facilities that make transfers into stationary storage containers of certain sizes and types. This rule is required in order to reduce hydrocarbon emissions in the Kansas City metropolitan area that contribute to the formation of ozone.*

(1) Applicability. This rule shall apply throughout Clay, Jackson and Platte Counties.

(2) Definitions.

(A) CARB—California Air Resources Board, 2020 L Street, PO Box 2815, Sacramento, CA 95812.

(B) Department—Missouri Department of Natural Resources, 205 Jefferson Street, PO Box 176, Jefferson City, MO 65102.

(C) Initial fueling of motor vehicles—The operation of dispensing gasoline fuel into a



newly assembled motor vehicle at an automobile assembly plant while the vehicle is still being assembled on the assembly line. The newly assembled motor vehicles being fueled on the assembly line must have fuel tanks that have never before contained gasoline fuel.

(D) MO/PETP—The Missouri Performance Evaluation Test Procedures, a set of test procedures for evaluating performance of Stage I/II vapor control equipment and systems to be installed or that have been installed in Missouri. Contact the department for a copy of the latest MO/PETP.

(E) Staff director—Director of the Air Pollution Control Program of the Department of Natural Resources, or a designated representative.

(F) Stage I vapor recovery system—A system used to capture the gasoline vapors that would otherwise be emitted when gasoline is transferred from a loading installation to a delivery vessel or from a delivery vessel to a storage tank.

(G) 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) Petroleum Storage Tanks.

1. No owner or operator of petroleum storage tanks shall cause or permit the storage in any stationary storage tank of more than forty thousand (40,000) gallons capacity of any petroleum liquid having a true vapor pressure of one and one-half (1.5) pounds per square inch absolute (psia) or greater at ninety degrees Fahrenheit (90°F), unless the storage tank is a pressure tank capable of maintaining working pressures sufficient at all times to prevent volatile organic compound (VOC) vapor or gas loss to the atmosphere or is equipped with one (1) of the following vapor loss control devices:

A. A floating roof, consisting of a pontoon type, double-deck type or internal floating cover, or external floating cover, that rests on the surface of the liquid contents and is equipped with a closure seal(s) to close the space between the roof edge and tank wall. Storage tanks with external floating roofs shall meet the additional following requirements:

(I) The storage tank shall be fitted with either—

(a) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or

(b) A closure or other device approved by the staff director that controls VOC emissions with an effectiveness equal to

or greater than a seal required under subpart (3)(A)1.A.(I)(a) of this rule;

(II) All seal closure devices shall meet the following requirements:

(a) There are no visible holes, tears or other openings in the seal(s) or seal fabric;

(b) The seal(s) is intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and

(c) For vapor-mounted primary seals, the accumulated area of gaps exceeding 0.32 centimeters, one-eighth inch (1/8") width, between the secondary seal and the tank wall shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter (1.0 in<sup>2</sup> per foot of tank diameter);

(III) All openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves shall be equipped with—

(a) Covers, seals or lids in the closed position except when the openings are in actual use; and

(b) Projections into the tank which remain below the liquid surface at all times;

(IV) Automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports;

(V) Rim vents shall be set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting; and

(VI) Emergency roof drains shall have slotted membrane fabric covers or equivalent covers which cover at least ninety percent (90%) of the area of the opening;

B. A vapor recovery system with all storage tank gauging and sampling devices gas-tight, except when gauging or sampling is taking place. The vapor disposal portion of the vapor recovery system shall consist of an adsorber system, condensation system, incinerator or equivalent vapor disposal system that processes the vapor and gases from the equipment being controlled; or

C. Other equipment or means of equal efficiency for purposes of air pollution control as approved by the staff director.

2. Control equipment described in subparagraph (3)(A)1.A. of this rule shall not be allowed if the petroleum liquid other than gasoline has a true vapor pressure of 11.1 psia or greater at ninety degrees Fahrenheit (90°F). All storage tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

3. Owners and operators of petroleum storage tanks subject to this subsection shall maintain written records of maintenance

(both routine and unscheduled) performed on the tanks, all repairs made, the results of all tests performed and the type and quantity of petroleum liquid stored in them.

4. This subsection shall not apply to petroleum storage tanks which—

A. Are used to store processed and/or treated petroleum or condensate when it is stored, processed and/or treated at a drilling and production installation prior to custody transfer;

B. Contain a petroleum liquid with a true vapor pressure less than 27.6 kilopascals (kPa) (4.0 psia) at ninety degrees Fahrenheit (90°F);

C. Are of welded construction, and equipped with a metallic-type shoe primary seal and have a shoe-mounted secondary seal or closure devices of demonstrated equivalence approved by the staff director; or

D. Are used to store waxy, heavy pour crude oil.

(B) Gasoline Loading.

1. No owner or operator of a gasoline loading installation or delivery vessel shall cause or permit the loading of gasoline into any delivery vessel from a loading installation unless the loading installation is equipped with a vapor recovery system or equivalent. This system or system equivalent shall be approved by the staff director and the delivery vessel shall be in compliance with subsection (3)(D) of this rule.

2. Loading shall be accomplished in a manner that the displaced vapors and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. The vapor disposal portion of the vapor recovery system shall consist of one (1) of the following:

A. An adsorber system, condensation system, incinerator or equivalent vapor disposal system that processes the vapors and gases from the equipment being controlled and limits the discharge of VOC into the atmosphere to ten (10) milligrams of VOC vapor per liter of gasoline loaded;

B. A vapor handling system that directs the vapor to a fuel gas system; or

C. Other equipment of an efficiency equal to or greater than subparagraph (3)(B)2.A. or B. of this rule if approved by the staff director.

3. Owners and operators of loading installations subject to this subsection shall maintain complete records documenting the number of delivery vessels loaded and their owners.



4. This subsection shall not apply to loading installations whose average monthly throughput of gasoline is less than or equal to one hundred twenty thousand (120,000) gallons when averaged over the most recent calendar year, provided that the installation loads gasoline by submerged loading.

A. To maintain the exemption, these installations shall submit to the staff director on a form supplied by the department by February 1 of each year, a report stating gasoline throughput for each month of the previous calendar year. After the effective date of this rule, any revision to the department supplied forms will be presented to the regulated community for a forty-five (45) day comment period.

B. Delivery vessels purchased after the effective date of this rule shall be Stage I equipped.

C. A loading installation that fails to meet the requirements of the exemption for one (1) calendar year shall not qualify for the exemption again.

D. To maintain the exemption owners or operators shall maintain records of gasoline throughput and gasoline delivery.

E. Delivery vessels operated by an exempt installation shall not deliver to Stage I controlled tanks unless the delivery vessel is equipped with and employs Stage I controls.

(C) Gasoline Transfer.

1. No owner or operator of a gasoline storage tank or delivery vessel shall cause or permit the transfer of gasoline from a delivery vessel into a gasoline storage tank with a capacity greater than two hundred fifty (250) gallons unless—

A. The storage tank is equipped with a submerged fill pipe extending unrestricted to within six inches (6") of the bottom of the tank, and not touching the bottom of the tank, or the storage tank is equipped with a system that allows a bottom fill condition;

B. All storage tank caps and fittings are vapor-tight when gasoline transfer is not taking place; and

C. Each storage tank is vented via a conduit that is:

(I) At least two inches (2") inside diameter;

(II) At least twelve feet (12') in height above grade; and

(III) Equipped with a pressure/vacuum valve that is CARB certified and MO/PETP approved at three inches water column pressure/eight inches water column vacuum (3" wcp/8" wcv). When the owner or operator provides documentation that the system is CARB certified for a different valve and will not function properly with a 3" wcp/8" wcv valve, the valve shall be

MO/PETP approved. All pressure/vacuum valves shall be bench tested prior to installation. Initial fueling facilities shall have MO/PETP approved pressure/vacuum valves.

2. Stationary storage tanks with a capacity greater than two thousand (2,000) gallons shall also be equipped with a Stage I vapor recovery system in addition to the requirements of paragraph (3)(C)1. of this rule and the delivery vessels to these tanks shall be in compliance with subsection (3)(D) of this rule.

A. The vapor recovery system shall collect no less than ninety percent (90%) by volume of the vapors displaced from the stationary storage tank during gasoline transfer and shall return the vapors via a vapor-tight return line to the delivery vessel. After the effective date of this rule, all coaxial systems shall be equipped with poppeted fittings.

B. A delivery vessel shall be refilled only at installations complying with the provisions of subsection (3)(B) of this rule.

C. This subsection shall not be construed to prohibit safety valves or other devices required by governmental regulations.

3. No owner or operator of a gasoline delivery vessel shall cause or permit the transfer of gasoline from a delivery vessel into a storage tank with a capacity greater than two thousand (2,000) gallons unless—

A. The owner or operator employs one (1) vapor line per product line during the transfer. The staff director may approve other delivery systems upon submittal to the department of test data demonstrating compliance with subparagraph (3)(C)2.A. of this rule;

B. The vapor hose(s) employed is no less than three inches (3") inside diameter; and

C. The product hose(s) employed is no more than four inches (4") inside diameter.

4. The owner or operator of stationary storage tanks subject to this subsection shall keep records documenting the vessel owners and number of delivery vessels unloaded by each owner. The owner or operator shall retain on-site copies of the loading ticket, manifest or delivery receipt for each grade of product received, subject to examination by the staff director upon request. If a delivery receipt is retained rather than a manifest or loading ticket, the delivery ticket shall bear the following information: vendor name, date of delivery, quantity of each grade, point of origin, and the manifest or loading ticket number. The required retention on-site of the loading ticket, manifest or delivery receipt

shall be limited to the four (4) most recent records for each grade of product.

5. The provisions of paragraph (3)(C)2. of this rule shall not apply to transfers made to storage tanks equipped with floating roofs or their equivalent.

6. The provisions of paragraphs (3)(C) 1.-4. of this rule shall not apply to stationary storage tanks having a capacity less than or equal to two thousand (2,000) gallons used exclusively for the fueling of implements of agriculture or were installed prior to June 12, 1986.

(D) Gasoline Delivery Vessels.

1. No owner or operator of a gasoline delivery vessel shall operate or use a gasoline delivery vessel which is loaded or unloaded at an installation subject to subsections (3)(B) or (C) of this rule unless—

A. The delivery vessel is tested annually to demonstrate compliance with the test method specified in 40 CFR part 63, subpart R, section 63.425(e);

B. The owner or operator obtains the completed test results signed by a representative of the testing facility upon successful completion of the leak test. Blank test certification application forms for the test results will be provided to the testing facilities by the department. After the effective date of this rule, any revision to the department supplied forms will be presented to the regulated community for a forty-five (45)-day comment period. The owner or operator shall send a copy of the signed successful test results to the staff director. The staff director, upon receipt of acceptable test results, shall issue an official sticker to the owner or operator;

C. The Missouri sticker is placed on the upper left portion of the back end of the vessel;

D. The delivery vessel is repaired by the owner or operator and retested within fifteen (15) days of testing if it does not meet the leak test criteria of paragraph (3)(D)1. of this rule; and

E. A copy of the vessel's current Tank Truck Tightness Test results are kept with the delivery vessel at all times and made immediately available to the staff director upon request.

2. An owner or operator of a gasoline delivery vessel who can demonstrate to the satisfaction of the staff director that the vessel has passed a current annual leak test in another state shall be deemed to have satisfied the requirements of subparagraph (3)(D)1.A. of this rule, if the other state's leak test program requires the same gauge pressure and test procedures as the test specified in subparagraph (3)(D)1.A. of this rule. The owner or operator shall apply for a





Missouri sticker and display the Missouri sticker on the upper left portion of the back end of the delivery vessel.

3. Owners and operators of gasoline delivery vessels shall maintain written records of all tests and maintenance performed on the vessels.

4. This subsection shall not be construed to prohibit safety valves or other devices required by governmental regulations.

(E) Owner/Operator Compliance. The owner or operator of a vapor recovery system subject to this rule shall—

1. Operate the vapor recovery system and the gasoline loading equipment in a manner that prevents—

A. Gauge pressure from exceeding four thousand five hundred (4,500) pascals (eighteen inches (18") of H<sub>2</sub>O) in the delivery vessel;

B. A reading equal to or greater than one hundred percent (100%) of the lower explosive limit (LEL, measured as propane) at two and one-half (2.5) centimeters from all points on the perimeter of a potential leak source when measured by the method referenced in 10 CSR 10-6.030(14)(E) during loading or transfer operations; and

C. Visible liquid leaks during loading or transfer operation;

2. Repair and retest within fifteen (15) days, a vapor recovery system that exceeds the limits in subsection (3)(E) of this rule; and

3. Maintain written records of inspection reports, enforcement documents, gasoline deliveries, routine and unscheduled maintenance and repairs and all results of tests conducted.

(4) Reporting and Record Keeping. The reporting and record keeping requirements are located in paragraphs (3)(A)3., (3)(B)3., (3)(C)4., (3)(D)3. and (3)(E)3. of this rule. In addition, all records shall be maintained for a minimum of two (2) years, and shall be made immediately available to inspectors upon request.

(5) Test Methods.

(A) Testing and monitoring procedures to determine compliance with subsection (3)(D) of this rule and confirm the continuing existence of leak-tight conditions shall be conducted using the method referenced in 10 CSR 10-6.030(14)(B) or by any method determined by the staff director.

(B) Testing procedures to determine compliance with subparagraph (3)(B)2.A. of this rule shall be conducted using the method referenced in 10 CSR 10-6.030(14)(A) or by any method determined by the staff director.

(C) The staff director, at any time, may monitor a delivery vessel, vapor recovery system or gasoline loading equipment by a method determined by the staff director to confirm continuing compliance with this rule.

(D) A static leak decay test of the Stage I vapor recovery system shall be required once every five (5) years to demonstrate system vapor tightness. In addition, a bench test of each pressure/vacuum valve shall be required once every two (2) years to demonstrate component vapor tightness.

(E) Additional testing may also be required by the staff director in order to determine proper functioning of vapor recovery equipment.

*AUTHORITY: section 643.050, RSMo 2000. \* Original rule filed Jan. 15, 1979, effective June 11, 1979. Amended: Filed Oct. 15, 1979, effective March 13, 1980. Amended: Filed March 13, 1980, effective Sept. 12, 1980. Amended: Filed Nov. 2, 1984, effective May 11, 1985. Amended: Filed Feb. 4, 1986, effective May 29, 1986. Amended: Filed Sept. 1, 1987, effective Dec. 24, 1987. Amended: Filed Nov. 27, 1989, effective May 24, 1990. Amended: Filed May 15, 1995, effective Dec. 30, 1995. Amended: Filed Dec. 1, 2000, effective July 30, 2001. Amended: Filed April 1, 2002, effective Nov. 30, 2002. Amended: Filed Aug. 15, 2003, effective April 30, 2004.*

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

**10 CSR 10-2.270 Restriction of Emissions From Catalytic Cracking Units**  
(Rescinded November 23, 1987)

*AUTHORITY: section 643.050, RSMo 1986. Original rule filed July 16, 1979, effective Feb. 11, 1980. Rescinded: Filed Aug. 4, 1987, effective Nov. 23, 1987.*

**10 CSR 10-2.280 Control of Emissions From Perchloroethylene Dry Cleaning Installations**  
(Rescinded January 30, 2003)

*AUTHORITY: Chapter 203, RSMo 1986. Original rule filed March 13, 1980, effective Sept. 12, 1980. Amended: Filed Nov. 10, 1981, effective May 13, 1982. Rescinded: Filed May 21, 2002, effective Jan. 30, 2003.*

**10 CSR 10-2.290 Control of Emissions From Rotogravure and Flexographic Printing Facilities**

*PURPOSE: This regulation restricts volatile organic compound emissions from roto-gravure and flexographic printing facilities.*

(1) Application.

(A) This regulation shall apply throughout Clay, Jackson and Platte Counties.

(B) This regulation applies to installations with uncontrolled potential emissions equal to or greater than two hundred fifty kilograms (250 kg) per day or one hundred (100) tons per year of volatile organic compounds (VOC) from the combination of rotogravure and flexographic printing presses. The uncontrolled potential emissions are the potential emissions (as defined) plus the amount by weight of VOCs whose emission into the atmosphere is prevented by the use of air pollution control devices.

(2) Definitions.

(A) Definitions of certain terms specified in this regulation may be found in 10 CSR 10-6.020.

(B) The definition of a term specific to this regulation is as follows: ink formulation, as applied, includes the base ink and any additives, such as thinning solvents, to make up the ink material that is applied to a substrate.

(3) Emission Limits.

(A) No owner or operator shall use or permit the use of any of the following printing presses unless they are equipped with a control device. The control device shall remove, destroy or prevent the emission of VOCs into the ambient air by at least the percentage indicated by weight of the uncontrolled VOC emissions on a daily basis.

Press	Percentage
Flexographic	60
Publication Rotogravure	75
Other Rotogravure	65

(B) Low solvent technology may be used to achieve VOC emission reductions instead of the methods required in subsection (3)(A). If low solvent technology is used, the following limits must be met for each press:

1. For waterborne inks, the volatile portion of the ink as applied to the substrate must contain no more than twenty-five percent (25%) by volume of VOC; and

2. For water-based or high solids inks, the ink as applied to the substrate must be at least sixty percent (60%) by volume non-VOC material.



(C) No owner or operator shall use or permit the use of any flexographic or rotogravure printing press that uses cleanup solvents containing VOCs unless—

1. The cleanup solvents are kept in tightly covered tanks or containers during transport and storage;

2. The cleaning cloths used with the cleanup solvents are placed in tightly closed containers when not in use and while awaiting off-site transportation. The cleaning cloths should be properly cleaned and disposed of. The cloths, when properly cleaned or disposed of, are processed in a way that as much of the solvent as practicable is removed for some further use or destroyed. Cleaning and disposal methods shall be approved by the director; and

3. An owner or operator may use an alternate method for reducing cleanup solvent VOC emissions, including the use of low VOC cleanup solvents, if the owner or operator shows the emission reduction is equal to or greater than paragraphs (3)(C)1. and 2. This alternate method must be approved by the director.

(4) Recordkeeping.

(A) For owners or operators using an add-on control device(s) to meet the requirements of subsection (3)(A), the following parameters shall be monitored and recorded to determine compliance with subsection (3)(A):

1. Exhaust gas temperature of all incinerators or temperature rise across a catalytic incinerator bed on a continuous basis;

2. VOC breakthrough on a carbon adsorption unit on a continuous basis;

3. Results of emissions testing as required in section (5) of this regulation when performed;

4. Maintenance, repairs and malfunction of any air pollution control equipment when performed; and

5. Any other monitoring parameter required by the director to determine compliance with subsection (3)(A).

(B) For owners or operators meeting the requirements of subsection (3)(B) for each ink formulation used, the following shall be recorded for each press to determine continuous compliance with subsection (3)(D):

1. Volume-weighted ink VOC content in percent by volume for each ink formulation as applied on a monthly basis;

2. Results of ink testing as required in section (5) of this rule when performed; and

3. Any other information required by the director to determine compliance with subsection (3)(B).

(C) For owners and operators using low solvent technology without the use of control equipment to meet the requirements of subsection (3)(B), and for who subsection (4)(B)

does not apply, the following shall be recorded to determine daily compliance with subsection (3)(B):

1. Volume-weighted ink VOC content in percent by volume for each ink formulation as applied on a monthly basis;

2. Ink usage in gallons for each ink formulation as applied on a daily basis for each press;

3. Volume-weighted density of VOCs in ink in pounds per gallon for each ink formulation as applied on a daily basis;

4. Volume-weighted average of the VOC content of each ink formulation as applied in percent by volume for each press on a daily basis;

5. Ink water content in percent by volume for each ink formulation as applied on a daily basis for each press;

6. Ink exempt solvent content in percent by volume for each ink formulation as applied on a daily basis for each press;

7. Results of ink testing as required in section (5) of this regulation when performed; and

8. Any other information required by the director to determine compliance with subsection (3)(B).

(D) Records of all information required in subsections (4)(A)–(C) shall be kept for at least two (2) years. These records shall be available immediately upon request for review by Department of Natural Resources personnel and other air pollution control agencies with proper authority.

(5) Determination of Compliance.

(A) Testing and compliance demonstrations for the emission limits of subsection (3)(A) shall follow the procedures contained in 10 CSR 10-6.030(14)(A) and 10 CSR 10-6.030(20). The averaging time for these tests shall be three (3) one (1)-hour tests. These procedures will determine control device capture efficiency and destruction efficiency. Control device testing will be required as the director determines necessary to verify the capture and destruction efficiencies. At a minimum, control device testing must be completed and submitted once to the appropriate air pollution control agency within one hundred eighty (180) days (August 4, 1992) after this provision of the regulation is effective (February 6, 1992), unless the director determines that a valid test is already on file. Inlet and outlet gas temperature rise across a catalytic incinerator shall be used to determine daily compliance. These temperatures shall be monitored with an accuracy of the greater of plus or minus three-fourths percent ( $\pm 0.75\%$ ) of the temperature being measured expressed in degrees Celsius or two and one-half degrees Celsius ( $2.5^\circ\text{C}$ ).

(B) Testing and compliance demonstrations for the emission limits of subsection (3)(B) shall follow the procedures contained in 10 CSR 10-6.030(14)(C). This procedure will determine the VOC content of inks. Ink testing will be required as the director determines necessary to verify the manufacturer's formula specifications. At a minimum, ink testing will be required once after this provision of the regulation is effective (February 6, 1992). Ink manufacturer's formula specifications shall be used to determine daily compliance.

(6) Compliance Dates.

(A) The owner or operator of a rotogravure or flexographic printing installation subject to this regulation must submit a final control plan to the director by December 31, 1980 for his/her approval. This plan must include the following:

1. A detailed plan of process modifications; and

2. A time schedule for compliance containing increments of progress and a final compliance date.

(B) Compliance with this regulation shall be accomplished by any installation as expeditiously as practicable, but in no case shall final compliance extend beyond December 31, 1982.

*AUTHORITY: section 643.050, RSMo 1986.\* Original rule filed March 13, 1980, effective Sept. 12, 1980. Amended: Filed July 1, 1987, effective Dec. 24, 1987. Amended: Filed July 15, 1991, effective Feb. 6, 1992.*

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

**10 CSR 10-2.300 Control of Emissions From the Manufacturing of Paints, Varnishes, Lacquers, Enamels and Other Allied Surface Coating Products**

*PURPOSE: This regulation specifies operating equipment requirements and operating procedures for the reduction of volatile organic compounds from the manufacture of paints, varnishes, lacquers, enamels and other allied surface coating products in the Kansas City metropolitan area.*

(1) Application.

(A) This regulation shall apply throughout Clay, Jackson and Platte Counties.

(B) This regulation applies to those installations which have the uncontrolled potential to emit more than two hundred fifty kilograms per day (250 kg/day) or one hundred



(100) tons per year of volatile organic compounds (VOC) from the manufacture of paints, varnishes, lacquers, enamels and other allied surface coating products. This does not include any installation which does not have an allowable VOC emission limit established under 10 CSR 10-6.060 or legally enforceable state implementation plan revision and which has uncontrolled potential emissions less than two hundred fifty (250) kg/day or one hundred (100) tons per year. The uncontrolled potential to emit is the potential emissions (as defined) plus the emissions removed by control devices.

(2) Definitions of certain terms specified in this regulation may be found in 10 CSR 10-6.020.

(3) General Provisions. No owner or operator of a manufacturing installation subject to this regulation and producing the products listed in section (1) shall cause or allow the manufacture of these products unless the operating equipment meets the requirements contained in this regulation and without adhering to operating procedures recommended by the equipment manufacturer and approved by the director.

(4) Operating Equipment and Operating Procedure Requirements.

(A) Tanks storing VOC with a vapor pressure greater than or equal to ten kilo pascals (10 kPa) (1.5 psi) at twenty degrees Celsius (20°C), shall be equipped with pressure/vacuum conservation vents set at 0.2 kPa (.029 psi), except where more effective air pollution control is used and has been approved by the director. Stationary VOC storage containers with a capacity greater than two hundred fifty (250) gallons shall be equipped with a submerged-fill pipe or bottom fill, except where more effective air pollution control is used and has been approved by the director.

(B) Covers shall be installed on all open-top tanks used for the production of nonwaterbase coating products. These covers shall remain closed except when production, sampling, maintenance or inspection procedures require operator access.

(C) Covers shall be installed on all tanks containing VOC used for cleaning equipment. These covers shall remain closed except when operator access is required.

(D) All vapors from varnish cooking operations shall be collected and passed through a control device which removes at least eighty-five percent (85%) of the VOCs from these vapors before they are discharged to the atmosphere.

(E) All grinding mills shall be operated and maintained in accordance with manufacturer's specifications. The manufacturer's specifications shall be kept on file and made available to the director upon his/her request.

(F) The polymerization of synthetic varnish or resin shall be done in a completely enclosed operation with the VOC emissions controlled by the use of surface condensers or equivalent controls.

1. If surface condensers are used, the temperature of the exit stream shall not exceed the temperature at which the vapor pressure is 3.5 kPa (0.5 psi) for any organic compound in the exit stream.

2. If equivalent controls are used, the VOC emissions must be reduced by an amount equivalent to the reduction which would be achieved under paragraph (4)(F)1. Any owner or operator desiring to use equivalent controls to comply with this subsection shall submit proof of equivalency as part of the control plan required under subsection (5)(A) of this regulation. Equivalent controls may not be used unless approved by the director.

(5) Compliance Dates.

(A) The owner or operator of a paint, varnish, lacquer, enamel or other allied surface coating production installation subject to this regulation shall submit a final control plan to the director for his/her approval no later than January 25, 1988. This plan shall include a time schedule for compliance containing an engineering design, increments of progress final compliance and testing dates.

(B) Compliance with this regulation shall be accomplished by affected installations promptly, but in no case later than March 31, 1988.

(6) Compliance Methods and Recordkeeping.

(A) The VOC control efficiency in subsections (4)(D) and (F) shall be determined by the testing methods referenced in 10 CSR 10-6.030(14)(A). The same method shall be used to sample emissions from alternate control measures subject to the director's review in subsection (4)(A).

(B) Owners or operators utilizing add-on control technology shall monitor the following parameters continuously while the affected equipment is in operation:

1. Exit stream temperature on all condensers;

2. Routine and unscheduled maintenance and repair activities on all air pollution control equipment; and

3. Any other parameter which the director determines is necessary to quantify emis-

sions or otherwise determine compliance with this regulation.

(C) Records shall be kept on production rates sufficient to determine daily VOC emissions and any equipment test results performed in conjunction with this regulation.

(D) The owner or operator shall maintain all recorded information required under subsections (6)(B) and (C) and shall keep the records for a period of not less than two (2) years. All these records shall be made available to the director upon his/her request.

*AUTHORITY: section 643.050, RSMo 1986.\* Original rule filed April 2, 1986, effective Sept. 26, 1986. Amended: Filed April 2, 1987, effective Aug. 27, 1987. Amended: Filed Aug. 4, 1987, effective Dec. 12, 1987.*

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

#### 10 CSR 10-2.310 Control of Emissions From the Application of Automotive Underbody Deadeners

*PURPOSE: This regulation restricts emissions of volatile organic compounds from the application of automotive underbody deadeners.*

(1) Applicability.

(A) This regulation shall apply throughout Clay, Jackson and Platte Counties.

(B) This regulation applies to all installations which have the uncontrolled potential to emit more than one hundred (100) tons per year or two hundred fifty kilograms per day (250 kg) of volatile organic compounds (VOC) from the application of automotive underbody deadeners. This regulation also shall apply to any installation which does not have an allowable VOC emission limit established under 10 CSR 10-6.060 or legally enforceable state implementation plan revision and which has uncontrolled potential emissions greater than or equal to two hundred fifty (250) kg/day or one hundred (100) tons per year. The uncontrolled potential to emit is the potential emissions (as defined) plus the emissions removed by control devices.

(2) Definitions of certain terms specified in this regulation may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) No person shall emit to the atmosphere any VOC from the application of automotive underbody deadeners in excess of the emission limit in section (4).





(B) The emission limit contained in section (4) shall be based on a daily weighted average of all deadeners delivered to the coating applicator.

(4) Emission Limit and Compliance Date.

Application Process	Emission Limit	Compliance Date
General Motors Auto Underbody Deadeners	2.2 #VOC/Gal. of Deadener (minus water)	12/31/87

(5) Recordkeeping.

(A) The owner or operator of a deadener application operation covered by this regulation must maintain daily records of the composition and amount of deadener used, the amount of solvent used, the amount of clean-up solvent used and discarded and any other information necessary to determine compliance regulation this regulation or to quantify VOC emissions.

(B) Records of all information required in subsection (5)(A) shall be kept for a period of not less than two (2) years and all these records shall be made available to the director upon his/her request.

(6) Compliance Method. Compliance with this regulation shall be demonstrated using the test method referenced at 10 CSR 10-6.030(14)(C) to determine deadener composition. The deadener manufacturer's formulation data may be used to demonstrate compliance, but only after confirmation by the test method previously referenced.

*AUTHORITY: section 643.050, RSMo 1986.\* Original rule filed July 1, 1987, effective Nov. 23, 1987.*

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

**10 CSR 10-2.320 Control of Emissions From Production of Pesticides and Herbicides**

*PURPOSE: This regulation restricts emissions of volatile organic compounds from the production of pesticides and herbicides.*

(1) Applicability.

(A) This regulation shall apply throughout Clay, Jackson and Platte Counties.

(B) This regulation shall apply to any pesticide or herbicide manufacturing installation with an uncontrolled potential to emit equal to or greater than two hundred fifty kilograms per day (250 kg/day) or one hundred (100) tons per year of volatile organic compounds (VOC). This regulation also shall apply to

any installation which does not have an allowable VOC emission limit established under 10 CSR 10-6.060 or legally enforceable state implementation plan revision and which has uncontrolled potential emissions greater than or equal to two hundred fifty kilograms per day (250 kg/day) or one hundred (100) tons per year of VOC. The uncontrolled potential to emit is the potential emissions (as defined) plus the emissions removed by control devices.

(C) This regulation does not apply to source operations used exclusively for chemical or physical analysis of determinations of product quality and commercial acceptance (such as pilot plant operations and laboratories) unless the operation is an integral part of the production process.

(2) Definitions of certain terms specified in this regulation may be found in 10 CSR 10-6.020.

(3) General Provisions. All source operations in installations affected by this regulation that are venting emissions to VOC emission control devices as of November 23, 1987 shall be required to continue venting emissions to these control devices and these emissions shall be controlled to the extent required in section (4) of this regulation.

(4) Emission Limitations. Any pesticide or herbicide manufacturing installation VOC emissions control devices subject to this regulation must achieve an instantaneous VOC destruction or removal efficiency greater than or equal to ninety-nine percent (99%).

(5) Recordkeeping.

(A) Owners or operators utilizing thermal oxidizers as control technology must maintain adequate records of the combustion chamber temperature and residence time to determine the VOC control compliance. Also, the owners or operators must maintain records of routine or unscheduled maintenance and repairs of the thermal oxidizers. The director may require any other records of operating parameters as may be necessary to determine compliance.

(B) Owners or operators using other control technology shall maintain records of all operating parameters and routine or unscheduled maintenance and repairs of air pollution control equipment as may be required by the director to determine compliance.

(C) Records of all information required in subsections (4)(A) and (B) shall be kept for a period of not less than two (2) years and all these records shall be made available to the director upon his/her request.

(6) Compliance Method.

(A) For any control technology employed to comply with this regulation, compliance shall be determined by the test methods referenced in 10 CSR 10-6.030(14)(A) for VOC.

(B) For thermal oxidizers, compliance shall be determined by the combustion chamber temperature and residence time after adequate test results, as determined by the director, are provided by the owners or operators. These test results shall be subject to periodic confirmation at the discretion of the director. Combustion chamber gas temperature shall be monitored with an accuracy of the greater of ± 0.75% of the temperature being measured expressed in degrees Celsius or 2.5 degrees Celsius.

(7) Compliance Date. Compliance with this regulation by any installation subject to this regulation shall occur no later than November 23, 1987.

*AUTHORITY: section 643.050, RSMo 1986.\* Original rule filed July 1, 1987, effective Nov. 23, 1987.*

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

**10 CSR 10-2.330 Control of Gasoline Reid Vapor Pressure**

*PURPOSE: This rule limits the volatility of motor vehicle gasoline in the Kansas City maintenance area. By reducing the amount of gasoline that evaporates into the atmosphere, emissions of volatile organic compounds will be reduced. Since volatile organic compounds are precursors to ozone formation, ambient ozone levels will be reduced. This rule is intended to reduce emissions in the maintenance area as quickly as possible to reduce the risk of further ozone violations, which may prompt redesignation and/or sanctions from the Environmental Protection Agency (EPA).*

(1) Applicability. This rule shall apply throughout Clay, Platte and Jackson counties.

(2) Definitions. Definitions of certain terms used in this rule can be found in 10 CSR 10-6.020.

(3) General Provisions and Effective Dates of Compliance.

(A) No person shall sell, dispense, supply, offer for sale, offer for supply, transport or exchange in trade for use gasoline intended for final use in the applicable areas that



exceeds the Reid Vapor Pressure (RVP) limit in subsection (3)(B).

(B) The RVP of gasoline subject to this rule shall be restricted starting in 2001 as follows:

RVP (psi)	Facility	Time Period
7.0 psi or less	All facilities	June 1 through September 15

(C) Gasoline blends having at least nine percent (9%) but not more than ten percent (10%) ethyl alcohol by volume of the blended mixture shall have an RVP limit of one (1) pound per square inch (psi) higher than the limit contained in subsection (3)(B).

(4) Gasoline Sampling Procedures. Gasoline sampling shall follow the procedures outlined in "Sampling Procedures for Fuel Volatility," 40 CFR part 80, Appendix D.

(5) Gasoline Testing Procedures for RVP and Determination of Compliance.

(A) Gasoline testing shall follow the procedures contained in "Tests for Determining Reid Vapor Pressure (RVP) of Gasoline and Gasoline-Oxygenate Blends," 40 CFR, part 80, Appendix E.

(B) To determine compliance when field analysis indicates the RVP is between seven and zero-tenths (7.0) psi and seven and three-tenths (7.3) psi for conventional gasoline or between eight and zero-tenths (8.0) psi and eight and three-tenths (8.3) psi for nine to ten percent (9%–10%) ethyl alcohol blends, Missouri Department of Natural Resources (MDNR) will conduct additional testing. Additional testing shall include independent analysis by three (3) separate laboratories of three (3) independent samples taken sequentially, in accordance with sections (4) and (5) of this rule. If all of the measured RVP of the samples are above seven and zero-tenths (7.0) psi for conventional gasoline or above eight and zero-tenths (8.0) psi for nine to ten percent (9%–10%) ethyl alcohol blends, the department may take enforcement action.

(6) Record Keeping.

(A) All persons subject to this rule shall maintain records of any RVP testing and test results during the compliance period specified in section (3). These records shall be kept for at least two (2) years after the date of a completed RVP test. These records shall be made available immediately upon request for review or duplication by Department of Natural Resources personnel and city and county personnel certified under section 643.140, RSMo.

(B) Each bill of lading, invoice, loading ticket, delivery ticket, and other document that accompanies a shipment of gasoline (which includes gasoline blended with ethyl alcohol) shall contain a legible and conspicuous statement that the RVP of the gasoline does not exceed seven and zero-tenths (7.0) psi, in accordance with this rule for conventional gasoline, or that the RVP does not exceed eight and zero-tenths (8.0) psi for nine to ten percent (9%–10%) ethyl alcohol blends.

(C) Each bill of lading, invoice, loading ticket, delivery ticket, and other document which accompanies a shipment of gasoline containing ethyl alcohol shall contain a legible and conspicuous statement that the gasoline being shipped contains ethyl alcohol and that the percentage concentration of ethyl alcohol is between nine percent to ten percent (9%–10%), as required under subsection (3)(C) of this rule.

(D) All persons subject to this rule shall keep records of the bill of lading, invoice, loading ticket, delivery ticket, and other documents accompanying a shipment of gasoline during the compliance period specified in section (3). These records shall be kept for at least two (2) years after the date of delivery. These records shall be made available immediately upon request for review or duplication by Department of Natural Resources personnel and city and county personnel certified under section 643.140, RSMo.

(E) The director may require additional record keeping on a case-by-case basis. The director may require records be kept for additional periods of time for enforcement compliance.

(7) Violations and Penalties. Persons violating this rule shall be subject to enforcement action as authorized in sections 643.085 and 643.151, RSMo.

(8) Exemptions.

(A) Gasoline that exceeds the RVP limits will not violate this rule if the gasoline is separately stored, sealed, clearly labeled and not used until it is in compliance with this rule. The label shall state that the gasoline is prohibited by Missouri law from being sold, dispensed, supplied, offered for sale, offered for supply, transported or exchanged in trade until the specific date that the gasoline shall be in compliance with this rule.

(B) An individual consumer of gasoline who dispenses gasoline into his/her personal motor vehicle is exempt from this rule.

(C) Gasoline used only to fuel agricultural vehicles on property zoned for agricultural use is exempt from this rule.

(D) Owners and operators of facilities that only dispense gasoline into individual motor vehicles are not required to conduct the RVP testing specified in section (5).

(E) Federal specification reformulated gasoline (RFG) fully satisfies the requirements of section (3) of this rule.

*AUTHORITY: section 643.050, RSMo Supp. 1999.\* Original rule filed Jan. 3, 1991, effective Aug. 30, 1991. Rescinded: Filed March 15, 1995, effective Nov. 30, 1995. Readopted: Filed March 17, 1997, effective Oct. 30, 1997. Amended: Filed Sept. 26, 2000, effective May 30, 2001.*

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

### 10 CSR 10-2.340 Control of Emissions From Lithographic Printing Installations

*PURPOSE: This regulation restricts volatile organic compound emissions from lithographic printing facilities.*

(1) Applicability.

(A) This regulation shall apply throughout Clay, Jackson and Platte Counties.

(B) This regulation shall apply to installations that have calculated actual volatile organic compound (VOC) emissions for a known number of crewed hours, increased by the amount by weight of VOCs whose emission into the atmosphere is prevented by the use of air pollution control devices and extrapolated to eight thousand seven hundred sixty (8,760) hours per year equal to or greater than one hundred (100) tons per year from offset lithographic printing presses after December 9, 1991. The following factors shall be taken into consideration unless an alternative method is approved by the director:

1. The installation shall assume fifty percent (50%) of the solvent used for cleanup is retained in the rag(s) when the used solvent-laden rag(s) are cleaned or disposed of. The installation must demonstrate to the director that the solvents are not evaporated into the air when the waste rags are properly cleaned and disposed of;

2. The installation shall assume forty percent (40%) of the heatset ink oils stay in the paper web;

3. The installation shall assume no VOCs are emitted from the inks used in sheet-fed presses and nonheatset web presses; and

4. The installation may assume that fifty percent (50%) of the alcohol from the fountain solution is emitted from the dryer.



(C) This regulation shall not apply to—

1. Printing on fabric, metal or plastic;
2. Sheet-fed lithographic presses with cylinder widths of twenty-six inches (26") or less; or
3. Web lithographic presses with cylinder widths of eighteen inches (18") or less.

(2) Definitions.

(A) Alcohol—Refers to isopropanol or isopropyl alcohol;

(B) Coating—In the graphic arts industry, a layer of material that dries or cures by evaporation and is applied to a substrate over ink in a relatively unbroken film;

(C) Fountain solution—The solution which is applied to the image plate to maintain the hydrophilic properties of the nonimage areas. It is primarily water containing an etchant, gum arabic and a dampening aid;

(D) Heatset—A class of web-offset lithography which requires a heated dryer to evaporate the ink oils and solvents from the printing inks;

(E) Lithographic printing—A printing process where a planographic plate is used with the image area oleophilic and the nonimage area hydrophilic;

(F) Offset—The process that transfers an image from a plate to a rubber blanket cylinder before transfer to the substrate surface to be printed;

(G) Sheet-fed—Printing presses that are fed from a stack of paper sheets instead of a web. Sheet-fed presses generally use coldset inks; and

(H) Web—The substrate printed in a continuous roll-fed printing process.

(I) Definitions of certain terms in this rule, other than those specified in this rule section may be found in 10 CSR 10-6.020.

(3) General Provisions.

(A) No owner or operator shall use or permit the use of any offset lithographic printing press unless—

1. The fountain solution contains ten percent (10%) or less by weight of alcohol;
2. The fountain solution is refrigerated to a temperature of fifty-five degrees Fahrenheit (55°F) or less for alcohol-based solutions;
3. The fountain solution temperature at the mixing tank for alcohol-based solutions is monitored during each shift; and
4. The fountain solution mixing tanks are covered for alcohol-based solutions.

(B) No owner or operator shall use or permit the use of any offset lithographic printing press that uses cleanup solvents containing VOCs unless—

1. The cleanup solvents are kept in tightly covered tanks or containers during transport and storage;

2. The cleaning cloths used with the cleanup solvents are placed in tightly closed containers when not in use and while awaiting off-site transportation. The cleaning cloths should be properly cleaned and disposed of. The cloths, when properly cleaned or disposed of, are processed in a way that as much of the solvent, as practicable, is recovered for further use or destroyed. Cleaning and disposal methods shall be approved by the director; and

3. An owner or operator may use an alternate method for reducing cleanup solvent VOC emissions, including the use of low VOC cleanup solvents, if the owner or operator shows the emission reduction is equal to or greater than those in paragraphs (3)(B)1. and 2. This alternate method must be approved by the director.

(C) No owner or operator shall use or permit the use of any heatset web-offset lithographic printing press that uses a dryer that has ever had an actual emission rate of ten (10) tons per year or more VOCs after December 9, 1991, unless one hundred percent (100%) of the dryer exhaust is ducted to a control device that achieves eighty-five percent (85%) by weight or greater control efficiency.

(D) Use of emission control equipment shall require that continuous monitors be installed, calibrated, operated and maintained. The monitors continuously shall measure—

1. The exhaust gas temperature of all VOC destruction devices and the gas temperature immediately upstream and downstream of any catalytic bed with an accuracy of plus or minus 0.75% measured in degrees Celsius, or 2.5 degrees Celsius;

2. The cumulative amount of VOC recovered during a calendar month for all VOC recovery equipment attached to a dryer with an accuracy of plus or minus two percent ( $\pm 2\%$ ); and

3. Any other parameters considered necessary by the director to verify proper operation of emission control equipment.

(4) Reporting and Record Keeping.

(A) All persons subject to this regulation shall maintain records as required by this section sufficient to determine continuous compliance with this regulation. These records shall be kept for at least two (2) years. These records shall be available immediately upon request for review by Department of Natural Resources personnel and other air pollution control agencies with proper authority.

(B) All persons subject to subsection (3)(C) shall maintain records for each control device sufficient to demonstrate that the control efficiency is being maintained.

(C) For each regulated printing press, records shall be maintained to show—

1. Quantity of alcohol added to the fountain solution of each regulated press in pounds each month;

2. Percent of alcohol in fountain solution by weight as monitored on a once per shift basis;

3. Results of any testing conducted on an emission unit at a regulated installation;

4. Maintenance records of any air pollution control equipment; and

5. The temperature of alcohol-based fountain solution as recorded on a once per shift basis.

(D) For each lithographic installation subject to this regulation, records shall be maintained to show—

1. Properties of heatset inks as applied (determined by the manufacturer's formulation data), density of inks in pounds per gallon, and total VOC content in weight percent;

2. Quantity of heatset inks as applied to substrate in pounds on a monthly basis;

3. Quantity of cleanup solvents used on a monthly basis; and

4. Quantity of coatings used on a monthly basis and percent VOC in coating by weight on a formulation basis.

(E) The director may require other records as reasonable and necessary to carry out the provisions of the Missouri Air Conservation Law.

(F) All persons subject to the provisions of this regulation shall provide to the director for approval a demonstration of final compliance with subsection (3)(A)—

1. Upon startup of presses which are not in existence and operating on December 9, 1991;

2. Within eighteen (18) months (June 9, 1993) after the effective date of this regulation (December 9, 1991) for all presses with a cylinder width of less than sixty inches (60") and all web presses with a cylinder width of sixty inches (60") or greater that are in existence and operating on December 9, 1991; and

3. Within thirty-six (36) months (December 9, 1994) after the effective date of this regulation (December 9, 1991) for all sheet-fed presses with a cylinder width of sixty inches (60") or greater that are in existence and operating on December 9, 1991.

(G) All persons subject to the provisions of this regulation shall provide to the director





for approval a demonstration of final compliance with subsections (3)(B) and (C) of this rule—

1. Upon startup of presses which are not in existence and operating on December 9, 1991; and

2. Within eighteen (18) months (June 9, 1993) after the effective date of this regulation for all presses that are in existence and operating December 9, 1991.

(H) All persons subject to the provisions of this regulation and not in compliance with all provisions of this regulation within twelve (12) months (December 9, 1992) from the effective date of this regulation (December 9, 1991) must submit a compliance plan to the director for approval. This plan must be received within six (6) months (June 9, 1992) after the effective date of this regulation (December 9, 1991). This plan must include the following:

1. A detailed plan of process modifications; and

2. A time schedule for compliance containing increments of progress, including:

A. Date of submittal of the source's final control plan to the appropriate air pollution control agency;

B. Date by which contracts for emission control systems or process modifications will be awarded; or date by which orders will be issued for the purchase of component parts to accomplish emission control or process modification;

C. Date of initiation of on-site construction or installation of emission control equipment or process change;

D. Date by which on-site construction or installation of emission control equipment or process modification is to be completed; and

E. Date by which final compliance is to be achieved.

(5) Test Methods.

(A) Testing and compliance demonstrations for subsection (3)(C) of this rule shall follow the procedures contained in Environmental Protection Agency Reference Methods 25 or 25A found in 40 CFR Part 60, Appendix A.

(B) Testing and compliance demonstrations for paragraph (3)(A)1. of this rule shall be based on the results from a calibrated hydrometer or refractometer.

*AUTHORITY: section 643.050, RSMo 2000.\* Original rule filed June 4, 1991, effective Dec. 9, 1991. Amended: Filed Jan. 13, 2003, effective Aug. 30, 2003.*

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

**10 CSR 10-2.360 Control of Emissions From Bakery Ovens**

*PURPOSE: This regulation restricts the emission of volatile organic compounds from bakery ovens at large commercial bakeries.*

*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. Therefore, the material which is so incorporated is on file with the agency who filed this rule, and with the Office of the Secretary of State. Any interested person may view this material at either agency's headquarters or the same will be made available at the Office of the Secretary of State at a cost not to exceed actual cost of copy reproduction. The entire text of the rule is printed here. This note refers only to the incorporated by reference material.*

(1) Definitions. Definitions of some of the terms used in this rule may be found in 10 CSR 10-6.020 Definition and Common Reference Tables.

(2) Applicability.

(A) This rule shall apply only in Clay, Platte and Jackson Counties.

(B) This rule shall apply to existing commercial bakeries whose potential emissions of volatile organic compounds (VOCs) are greater than one hundred tons per year (100 tpy). These bakeries shall demonstrate compliance with this rule by January 1, 1997.

(C) This rule shall apply to new or modified commercial bakeries whose potential emissions of VOCs are greater than one hundred (100) tpy upon start-up.

(3) Requirement. Existing or new commercial bakeries which meet the applicability level in subsections (2)(A), (B) and (C) shall install VOC emissions control device(s) in order to achieve at least ninety percent (90%) destruction and capture efficiencies or achieve at least eighty percent (80%) total removal efficiency on the combined emissions of all baking ovens.

(4) Determination of Compliance. Compliance with this rule shall be determined by the following methods:

(A) The destruction efficiency shall be determined by using Environmental Protection Agency (EPA) Test Method 25A or another equivalent method that is approved by the director.

(B) The amount of VOC per ton of baked bread shall be based on the EPA emission fac-

tors published in the Environmental Protection Agency document entitled "Alternative Control Technology Document for Bakery Oven Emissions," EPA 453/R-92-017, December 1992, or administrator-approved alternative methods determined through stack testing or administrator-approved industry literature. Alternative methods must be approved by the director.

(C) The capture efficiency of the air pollution control device shall be determined using the method referenced in 10 CSR 10-6.030(20) or by an administrator-approved alternative method. Alternative methods must be approved by the director.

(5) Recordkeeping.

(A) The owner or operator of a bakery oven shall maintain a daily record of operations. The daily records shall include at least:

1. The amount of raw material processed;

2. The percentage of yeast used;

3. The fermentation time;

4. The type of product baked;

5. The amount of product baked;

6. The emission factor used for each product; and

7. The quarterly emissions.

(B) Bakery owners or operators employing VOC emission control device(s) shall, as applicable, continuously monitor and record the following parameters of such device(s) while the bakery oven is in operation:

1. Exhaust temperature of all combustion devices, if used. Combustion devices must be operated at temperatures high enough to achieve optimum destruction efficiency. The optimum operating temperatures will be established by the department at the time of compliance determination;

2. Temperature rise across a catalytic oxidation bed, if used;

3. Exit stream temperature on all condensers, if used; and

4. Any other monitoring parameters as found necessary by the director.

(C) Records under subsections (5)(A) and (B) shall be retained by the owner or operator for a minimum of five (5) years. These records shall be made available to the representatives of the Missouri Department of Natural Resources upon request.

(6) Compliance Schedules. Any bakery owner or operator of an existing source subject to this rule shall submit a compliance plan to the director within three (3) months of the rule effective date. The compliance plan shall include, but shall not be limited to, control device description, testing protocol, date



of compliance, and an operating and maintenance plan for the control device(s). The owner or operator must implement the approved plan and demonstrate compliance with this rule by January 1, 1997.

*AUTHORITY: section 643.050, RSMo 1994.\* Original rule filed May 15, 1995, effective Dec. 30, 1995.*

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

**10 CSR 10-2.390 Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws**

*PURPOSE: This rule implements section 176(c) of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 et seq.), and the related requirements of 23 U.S.C. 109(j), with respect to the conformity of transportation plans, programs, and projects which are developed, funded, or approved by the United States Department of Transportation (DOT), and by metropolitan planning organizations (MPOs) or other recipients of funds under Title 23 U.S.C. or the Federal Transit Laws (49 U.S.C. Chapter 53). This rule sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such activities to the applicable implementation plan, developed pursuant to section 110 and Part D of the CAA. This rule applies to the Kansas City ozone maintenance area.*

(1) Definitions.

(A) Terms used but not defined in this rule shall have the meaning given them by the CAA, Titles 23 and 49 U.S.C., other United States Environmental Protection Agency (EPA) regulations, other DOT regulations, or other state or local air quality or transportation rules, in that order of priority. Definitions for some terms used in this rule may be found in 10 CSR 10-6.020.

(B) Additional definitions specific to this rule are as follows:

1. Applicable implementation plan—defined in section 302(q) of the CAA, the portion (or portions) of the implementation plan for ozone, or most recent revision thereof, which has been approved under section 110, or promulgated under section 110(c), or promulgated or approved pursuant to regulations promulgated under section 301(d) and which implements the relevant requirements of the CAA;

2. CAA—the Clean Air Act, as amended (42 U.S.C., 7401 et seq.);

3. Cause or contribute to a new violation for a project—

A. To cause or contribute to a new violation of a standard in the area substantially affected by the project or over a region which would otherwise not be in violation of the standard during the future period in question, if the project were not implemented; or

B. To contribute to a new violation in a manner that would increase the frequency or severity of a new violation of a standard in such area;

4. Clean data—air quality monitoring data determined by EPA to meet the requirements of 40 CFR part 58 that indicate attainment of the national ambient air quality standards;

5. Consultation—in the transportation conformity process, one (1) party confers with another identified party, provides all information to that party needed for meaningful input, and considers the views of that party and responds to those views in a timely, substantive written manner prior to any final decision on such action. Such views and written response shall be made part of the record of any decision or action;

6. Control strategy implementation plan revision—the implementation plan which contains specific strategies for controlling the emissions of and reducing ambient levels of pollutants in order to satisfy CAA requirements for demonstrations of reasonable further progress and attainment (CAA sections 182(b)(1), 182(c)(2)(A), 182(c)(2)(B), 187(a)(7), 189(a)(1)(B), and 189(b)(1)(A); and sections 192(a) and 192(b), for nitrogen dioxide);

7. Design concept—the type of facility identified by the project, e.g., freeway, expressway, arterial highway, grade-separated highway, reserved right-of-way rail transit, mixed traffic rail transit, exclusive busway, etc.;

8. Design scope—the design aspects which will affect the proposed facility's impact on regional emissions, usually as they relate to vehicle or person carrying capacity and control, e.g., number of lanes or tracks to be constructed or added, length of project, signalization, access control including approximate number and location of interchanges, preferential treatment for high-occupancy vehicles, etc.;

9. DOT—the United States Department of Transportation;

10. EPA—the Environmental Protection Agency;

11. FHWA—the Federal Highway Administration of DOT;

12. FHWA/FTA project—for the purpose of this rule, any highway or transit pro-

ject which is proposed to receive funding assistance and approval through the Federal-Aid Highway program or the Federal mass transit program, or requires Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) approval for some aspect of the project, such as connection to an interstate highway or deviation from applicable design standards on the interstate system;

13. Forecast period—with respect to a transportation plan, the period covered by the transportation plan pursuant to 23 CFR part 450;

14. FTA—the Federal Transit Administration of DOT;

15. Highway project—an undertaking to implement or modify a highway facility or highway-related program. Such an undertaking consists of all required phases necessary for implementation. For analytical purposes, it must be defined sufficiently to—

A. Connect logical *termini* and be of sufficient length to address environmental matters on a broad scope;

B. Have independent utility or significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and

C. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements;

16. Horizon year—a year for which the transportation plan describes the envisioned transportation system according to section (6) of this rule;

17. Hot-spot analysis—an estimation of likely future localized CO and PM<sub>10</sub> pollutant concentrations and a comparison of those concentrations to the national ambient air quality standards. Hot-spot analysis assesses impacts on a scale smaller than the entire nonattainment or maintenance area, including, for example, congested roadway intersections and highways or transit terminals, and uses an air quality dispersion model to determine the effects of emissions on air quality;

18. Increase the frequency or severity—to cause a location or region to exceed a standard more often or to cause a violation at a greater concentration than previously existed and/or would otherwise exist during the future period in question, if the project were not implemented;

19. Lapse—the conformity determination for a transportation plan or transportation improvement program (TIP) has expired, and thus there is no currently conforming transportation plan and TIP;

20. Maintenance area—any geographic region of the United States previously designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently



redesignated to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA, as amended:

21. Maintenance plan—an implementation plan under a section 175A of the CAA, as amended;

22. Metropolitan planning area—the geographic area in which the metropolitan transportation planning process required by 23 U.S.C. 134 and section 8 of the Federal Transit Act must be carried out;

23. Metropolitan planning organization (MPO)—that organization designated as being responsible, together with the state, for conducting the continuing, cooperative, and comprehensive planning process under 23 U.S.C. 134 and 49 U.S.C. 5303. It is the forum for cooperative transportation decision-making. The Mid-America Regional Council is the MPO for the Kansas City metropolitan area and the organization responsible for conducting the planning required under section 174 of the CAA;

24. Milestone—the meaning given in sections 182(g)(1) and 189(c) of the CAA. A milestone consists of an emissions level and the date on which it is required to be achieved;

25. Motor vehicle emissions budget—that portion of the total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the National Ambient Air Quality Standards (NAAQS), for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions. For purposes of meeting the conformity test required under sections (16) and/or (17) of this rule, the motor vehicle emissions budget in the applicable Missouri State Implementation Plan shall be combined with the motor vehicle emissions budget for the same pollutant in the applicable Kansas State Implementation Plan;

26. National ambient air quality standards (NAAQS)—those standards established pursuant to section 109 of the CAA;

27. NEPA—the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.);

28. NEPA process completion—for the purposes of this rule, with respect to FHWA or FTA, the point at which there is a specific action to make a determination that a project is categorically excluded, to make a Finding of No Significant Impact, or to issue a record of decision on a Final Environmental Impact Statement under NEPA;

29. Nonattainment area—any geographic region of the United States which has been designated as nonattainment under section 107 of the CAA for any pollutant for which a national ambient air quality standard exists;

30. Project—a highway project or transit project;

31. Protective finding—a determination by EPA that a submitted control strategy implementation plan revision contains adopted control measures or written commitments to adopt enforceable control measures that fully satisfy the emissions reductions requirements relevant to the statutory provision for which the implementation plan revision was submitted, such as reasonable further progress or attainment;

32. Recipient of funds designated under Title 23 U.S.C. or the Federal Transit Laws—any agency at any level of state, county, city, or regional government that routinely receives Title 23 U.S.C. or Federal Transit Laws funds to construct FHWA/FTA projects, operate FHWA/FTA projects or equipment, purchase equipment, or undertake other services or operations via contracts or agreements. This definition does not include private landowners or developers, or contractors or entities that are only paid for services or products created by their own employees;

33. Regionally significant project—a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals, as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum: all principal arterial highway and all fixed guideway transit facilities that offer an alternative to regional highway travel;

34. Safety margin—the amount by which the total projected emissions from all sources of a given pollutant are less than the total emissions that would satisfy the applicable requirement for reasonable further progress, attainment, or maintenance;

35. Standard—a national ambient air quality standard;

36. Statewide transportation improvement program (STIP)—a staged, multi-year, intermodal program of transportation projects which is consistent with the statewide transportation plan and planning processes and metropolitan transportation plans, transportation improvement programs (TIPs) and processes, developed pursuant to 23 CFR part 450;

37. Statewide transportation plan—the official statewide, intermodal transportation plan that is developed through the statewide transportation planning process, pursuant to 23 CFR part 450;

38. Transit—mass transportation by bus, rail, or other conveyance which provides general or special service to the public on a regular and continuing basis. It does not include school buses or charter or sightseeing services;

39. Transit project—an undertaking to implement or modify a transit facility or transit-related program; purchase transit vehicles or equipment; or provide financial assistance for transit operations. It does not include actions that are solely within the jurisdiction of local transit agencies, such as changes in routes, schedules, or fares. It may consist of several phases. For analytical purposes, it must be defined inclusively enough to—

A. Connect logical *termini* and be of sufficient length to address environmental matters on a broad scope;

B. Have independent utility or independent significance, i.e., be a reasonable expenditure even if no additional transportation improvements in the area are made; and

C. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements;

40. Transportation control measure (TCM)—any measure that is specifically identified and committed to in the applicable implementation plan that is either one (1) of the types listed in section 108 of the CAA, or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Notwithstanding the first sentence of this definition, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs for the purposes of this rule;

41. Transportation improvement program (TIP)—a staged, multiyear, intermodal program of transportation projects covering a metropolitan planning area which is consistent with the metropolitan transportation plan, and developed pursuant to 23 CFR part 450;

42. Transportation plan—the official intermodal metropolitan transportation plan that is developed through the metropolitan planning process for the metropolitan planning area, developed pursuant to 23 CFR part 450;

43. Transportation project—a highway project or a transit project; and





44. Written commitment—for the purposes of this rule, a written commitment that includes a description of the action to be taken; a schedule for the completion of the action; a demonstration that funding necessary to implement the action has been authorized by the appropriating or authorizing body; and an acknowledgement that the commitment is an enforceable obligation under the applicable implementation plan.

(2) Applicability.

(A) Action Applicability.

1. Except as provided for in subsection (2)(C) of this rule or section (23), conformity determinations are required for—

A. The adoption, acceptance, approval or support of transportation plans and transportation plan amendments developed pursuant to 23 CFR part 450 or 49 CFR part 613 by a MPO or DOT;

B. The adoption, acceptance, approval or support of TIPs and TIP amendments developed pursuant to 23 CFR part 450 or 49 CFR part 613 by a MPO or DOT; and

C. The approval, funding, or implementation of FHWA/FTA projects.

2. Conformity determinations are not required under this rule for individual projects which are not FHWA/FTA projects. However, section (19) applies to such projects if they are regionally significant.

(B) Geographic Applicability. The provisions of this rule shall apply in the Clay, Jackson and Platte Counties maintenance area for transportation-related criteria pollutants for which the area has a maintenance plan.

1. The provisions of this rule apply with respect to emissions of the following criteria pollutant: ozone.

2. The provisions of this rule apply with respect to emissions of the following precursor pollutants: volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) in ozone areas.

3. The provisions of this rule apply to the Clay, Jackson and Platte Counties maintenance area for twenty (20) years from the date EPA approves the area's request under section 107(d) of the CAA for redesignation to attainment, unless the applicable implementation plan specifies that the provisions of this rule shall apply for more than twenty (20) years.

(C) Limitations.

1. Projects subject to this rule for which the NEPA process and a conformity determination have been completed by DOT may proceed toward implementation without further conformity determinations unless more than three (3) years have elapsed since the most recent major step (NEPA process completion;

start of final design; acquisition of a significant portion of the right-of-way; or approval of the plans, specifications and estimates) occurred. All phases of such projects which were considered in the conformity determination are also included, if those phases were for the purpose of funding final design, right-of-way acquisition, construction, or any combination of these phases.

2. A new conformity determination for the project will be required if there is a significant change in project design concept and scope, if a supplemental environmental document for air quality purposes is initiated, or if three (3) years have elapsed since the most recent major step to advance the project occurred.

(D) Grace Period For New Nonattainment Areas. For areas or portions of areas which have been continuously designated attainment or not designated for any standard for ozone, CO, PM<sub>10</sub> or NO<sub>2</sub> since 1990 and are subsequently redesignated to nonattainment or designated nonattainment for any standard for any of these pollutants, the provisions of this rule shall not apply with respect to that standard for twelve (12) months following the effective date of final designation to nonattainment for each standard for such pollutant.

(3) Priority. When assisting or approving any action with air quality-related consequences, FHWA and FTA shall give priority to the implementation of those transportation portions of an applicable implementation plan prepared to attain and maintain the NAAQS. This priority shall be consistent with statutory requirements for allocation of funds among states or other jurisdictions.

(4) Frequency of Conformity Determinations.

(A) Conformity determinations and conformity redeterminations for transportation plans, TIPs, and FHWA/FTA projects must be made according to the requirements of this section and the applicable implementation plan.

(B) Frequency of Conformity Determinations for Transportation Plans.

1. Each new transportation plan must be demonstrated to conform before the transportation plan is approved by the MPO or accepted by DOT.

2. All transportation plan revisions must be found to conform before the transportation plan revisions are approved by the MPO or accepted by DOT, unless the revision merely adds or deletes exempt projects listed in sections (23) and (24) and has been made in accordance with the notification provisions of subparagraph (5)(C)1.F. The conformity determination must be based on the trans-

portation plan and the revision taken as a whole.

3. The MPO and DOT must determine the conformity of the transportation plan no less frequently than every three (3) years. If more than three (3) years elapse after DOT's conformity determination without the MPO and DOT determining conformity of the transportation plan, the existing conformity determination will lapse.

(C) Frequency of Conformity Determinations for Transportation Improvement Programs.

1. A new TIP must be demonstrated to conform before the TIP is approved by the MPO or accepted by DOT.

2. A TIP amendment requires a new conformity determination for the entire TIP before the amendment is approved by the MPO or accepted by DOT, unless the amendment merely adds or deletes exempt projects listed in section (23) or section (24) and has been made in accordance with the notification provisions of subparagraph (5)(C)1.G.

3. The MPO and DOT must determine the conformity of the TIP no less frequently than every three (3) years. If more than three (3) years elapse after DOT's conformity determination without the MPO and DOT determining conformity of the TIP, the existing conformity determination will lapse.

4. After the MPO adopts a new or revised transportation plan, conformity of the TIP must be redetermined by the MPO and DOT within six (6) months from the date of DOT's conformity determination for the transportation plan, unless the new or revised plan merely adds or deletes exempt projects listed in sections (23) and (24) and has been made in accordance with the notification provisions of subparagraph (5)(C)1.G. Otherwise, the existing conformity determination for the TIP will lapse.

(D) Projects. FHWA/FTA projects must be found to conform before they are adopted, accepted, approved, or funded. Conformity must be redetermined for any FHWA/FTA project if three (3) years have elapsed since the most recent major step to advance the project (NEPA process completion; start of final design; acquisition of a significant portion of the right-of-way; or approval of the plans, specifications and estimates) occurred.

(E) Triggers for Transportation Plan and TIP Conformity Determinations. Conformity of existing transportation plans and TIPs must be redetermined within eighteen (18) months of the following, or the existing conformity determination will lapse, and no new project-level conformity determinations may



be made until conformity of the transportation plan and TIP has been determined by the MPO and DOT—

1. November 24, 1993;

2. The effective date of EPA's finding that motor vehicle emissions budgets from an initially submitted control strategy implementation plan or maintenance plan are adequate pursuant to subsection (16)(E) and can be used for transportation conformity purposes;

3. EPA approval of a control strategy implementation plan revision or maintenance plan which establishes or revises a motor vehicle emissions budget;

4. EPA approval of an implementation plan revision that adds, deletes, or changes TCMs; and

5. EPA promulgation of an implementation plan which establishes or revises a motor vehicle emissions budget or adds, deletes, or changes TCMs.

(5) Consultation.

(A) General. Procedures for interagency consultation (federal, state, and local), resolution of conflicts, and public consultation are described in subsections (A) through (E) of this section. Public consultation procedures meet the requirements for public involvement in 23 CFR part 450.

1. MPOs and state departments of transportation will provide reasonable opportunity for consultation with state air agencies, local air quality and transportation agencies, DOT, and EPA, including consultation on the issues described in paragraph (C)1. of this section, before making conformity determinations.

(B) Interagency Consultation Procedures—General Factors.

1. Representatives of the MPO and its regional transportation policy advisory committee, state transportation agencies, state and local air quality agencies, and regional air quality policy advisory organization designated by the state air quality agencies under the provisions of CAA section 174 shall participate in an interagency consultation process in accordance with this section with each other and with FHWA and FTA and EPA on the development of the implementation plan, the list of TCMs in the applicable implementation plan, the unified planning work program under 23 CFR section 450.314, the transportation plan, the TIP, and any revisions to the preceding documents. Use of existing advisory committee structures will be the preferred mechanism for interagency consultation during the early stages of planning or programming processes. Expansion of representation will occur as necessary to assure that consulting agencies have the opportunity to receive background informa-

tion as it is developed and share ideas and concerns early in the planning or programming process. Where consultation takes place outside of existing advisory committee structures, local government transportation interests will be represented by four (4) persons (representing transit and roadway interests from each state) appointed by the chairs of the regional transportation policy advisory committee and local government air quality interests will be represented by four persons (at least one (1) from each state) appointed by the chairs of the regional air quality advisory organization. The air quality representation shall not duplicate representation from transportation agencies.

2. Roles and responsibilities of consulting agencies.

A. It shall be the affirmative responsibility of the agency(ies) with the responsibility for preparing the final document to initiate the consultation process by notifying other participants of the proposed planning or programming process for the development of the following planning or programming documents: the regional transportation plan and the regional TIP, including revisions, the unified planning work program, and any conformity determinations, with the MPO as the responsible agency; the statewide transportation plan and STIP for northern Clay and northern and western Platte Counties, with the state transportation agency as the responsible agency; and the state air quality implementation plans with motor vehicle emissions budgets and control strategies, including revisions, with the state air quality agency in cooperation with the MPO as the responsible agencies.

B. The adequacy of the consultation process for each type of document listed in subparagraph (5)(B)2.A. of this rule shall be assured by the agency responsible for that document, by meeting the requirements of parts (5)(B)2.A.(I)–(III) of this rule.

(I) The proposed planning or programming process must include at a minimum the following:

(a) The roles and responsibilities of each agency at each stage in the planning process, including technical meetings;

(b) The proposed organizational level of regular consultation;

(c) A process for circulating (or providing ready access to) draft documents and supporting materials for comment before formal adoption or publication;

(d) The frequency of, or process for convening, consultation meetings and responsibilities for establishing meeting agendas; and

(e) A process for responding to the significant comments of involved agencies.

(II) The time sequence and adequacy of the consultation process will be reviewed and determined for each type of planning or programming document by consensus of the consultation agencies at a meeting convened by the responsible agency for that purpose. These procedures shall subsequently become binding on all parties until such time as the procedures are revised by consensus of the consulting agencies.

(III) As a matter of policy, planning or programming processes must meet two (2) tests—

(a) Consultation opportunities must be provided early in the planning process. Early participation is intended to facilitate sharing of information needed for meaningful input and to allow the consulting agencies to confer with the responsible agency during the formative stages of the plan or program. At a minimum, proposed transportation planning or programming processes must specifically include opportunities for the consulting agencies to confer upon the conformity analysis required to make conformity determinations for transportation plans and TIPs prior to consideration of draft documents by the regional air quality advisory organization, the regional transportation policy advisory committee or the state transportation agency for the transportation planning area outside of the metropolitan planning area for transportation planning. Air quality planning processes must specifically include opportunities for the consulting agencies to confer upon the motor vehicle emissions budget before the budget is considered by the regional air quality advisory organization, the regional transportation policy advisory committee, and the state air quality agency. Additionally, if TCMs are to be considered in transportation plans, TIPs or the state implementation plan, specific opportunities to consult upon TCMs by air quality and transportation agencies must be provided; and

(b) Additional consultation opportunities must be provided prior to any final action by any responsible agency listed in subparagraph (5)(B)2.A. of this rule. Prior to formal action approving any plan or program, the consulting agencies must be given an opportunity to communicate their views in writing to the responsible agency. The responsible agency must consider the views of the consulting agencies and respond in writing to those views in a timely and complete manner prior to any final action on any plan or program. Such views and written



response shall be made part of the record of any decision or action. Opportunities for formal consulting agency comment may run concurrent with other public review time frames. Participation or lack of participation by a consulting agency early in the planning or programming process has no bearing on their opportunity to submit formal comment prior to official action by the responsible agency.

3. Consultation on planning assumptions.

A. Representatives of the conformity consulting agencies shall meet no less frequently than once per calendar year for the specific purpose of reviewing changes in transportation and air quality planning assumptions that could potentially impact the state implementation plan (SIP) motor vehicle emissions inventory, motor vehicle emissions budget and/or conformity determinations.

B. It shall be the affirmative responsibility of each of the consulting agencies to advise the MPO of any pending changes in their planning assumptions. The MPO shall be responsible for convening a meeting to review planning assumptions in August of each year, unless an alternate date is agreed to by the consulting agencies, and at such other times as any of the consulting agencies proposes a change to any of these planning inputs. The purpose of the meeting(s) is to share information and evaluate the potential impacts of any proposed changes in planning assumptions, and to inform each other regarding the timetable and scope of any upcoming studies or analyses that may lead to future revision of planning assumptions.

C. If any consulting agency proposes to undertake a data collection, planning or study process to evaluate a planning assumption that may have a significant impact on the state implementation plan (SIP) motor vehicle emissions inventory, motor vehicle emissions budget and/or conformity determinations, all of the consulting agencies shall be given an opportunity to provide advisory input into that process. Examples of data, planning or study topics that may be of interest in this context include (but are not limited to):

- (I) Estimates of vehicle miles traveled;
- (II) Estimates of current vehicle travel speeds;
- (III) Regional population and employment projections;
- (IV) Regional transportation modeling assumptions;
- (V) The methodology for determining future travel speeds;

(VI) The motor vehicle emissions model; and

(VII) The methodology for estimating future vehicle miles traveled.

D. Whenever a change in air quality or transportation planning assumptions is proposed that may have a significant impact on the SIP motor vehicle emissions inventory, motor vehicle emissions budget and/or conformity determinations, the agency proposing the change must provide all of the consulting agencies an opportunity to review the basis for the proposed change. All consulting agencies shall be given at least thirty (30) days to evaluate the impact of a proposed change in planning assumptions prior to final action by the agency proposing the change. (In the case of an EPA motor vehicle emissions model change, this would occur as part of the federal rulemaking process.)

4. It shall be the affirmative responsibility of the responsible agency to maintain a complete and accurate record of all agreements, planning and programming processes, and consultation activities required under this rule and to make these documents available for public inspection upon request. In addition, it shall be the affirmative responsibility of the responsible agency to supply the following information for inclusion in a notebook maintained within the offices of each of the conformity consulting agencies and at local public libraries. The MPO shall be responsible for distribution of information to the libraries. Copies of the following information shall be provided to all of the other consulting agencies and additional copies as the MPO prescribes shall be provided to the MPO for placement in public libraries in the Kansas City region—

A. The full text of any transportation or air quality document specified in paragraph (5)(B)2. of this rule and undergoing public comment pending final action by the responsible agency. Copies for distribution to local libraries must be delivered to the MPO at least three (3) business days prior to the beginning of the public comment period;

B. Summary of planning and programming processes for transportation plans, TIPs and SIPs identified in paragraph (5)(B)2. of this rule, after approval by consensus of the consulting agencies; and

C. Reasonably understandable summaries of final planning and programming documents for the general public. This summary information must be accompanied by a complete list of all supporting information, reports, studies, and texts which provide background or further information, along with the location of the documents and instructions on how they can be accessed.

Summaries of final documents shall be provided to the other consulting agencies and to the MPO within fourteen (14) days of final approval by the responsible agency. Summaries of the following documents are specifically required:

- (I) Regional unified planning work program;
- (II) Official projections of regional population and employment;
- (III) Regional transportation plan;
- (IV) State transportation plans for areas within the air quality planning area but outside of the metropolitan planning area for transportation;
- (V) Regional transportation improvement program;
- (VI) State transportation improvement program for areas within the air quality planning area but outside of the metropolitan planning area for transportation;
- (VII) State air quality plan and emissions inventories, including motor vehicle emissions budgets; and
- (VIII) The most recent analysis upon which a transportation/air quality conformity determination was made for a transportation plan or TIP.

(C) Interagency Consultation Procedures: Specific Processes. Interagency consultation procedures shall also include the following specific processes:

1. An interagency consultation process in accordance with subsection (5)(B) of this rule involving the MPO, the regional transportation policy advisory committee, the regional air quality advisory organization, the state transportation and air quality agencies, EPA, FHWA and FTA shall be undertaken for the following:

A. Evaluating and choosing a model (or models) and associated methods and assumptions to be used in hot-spot analyses and regional emissions analyses;

B. Determining which minor arterials and other transportation projects should be considered “regionally significant” for the purposes of regional emissions analysis (in addition to those functionally classified as principal arterial or higher or fixed guideway systems or extensions that offer an alternative to regional highway travel), and which projects should be considered to have a significant change in design concept and scope from the transportation plan or TIP. This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)3. of this rule regarding changes in planning assumptions;

C. Evaluating whether projects otherwise exempted from meeting the requirements of this rule (see sections (23) and (24))





should be treated as non-exempt in cases where potential adverse emissions impacts may exist for any reason. This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)2. of this rule in the context of the transportation planning and TIP programming processes;

D. Developing a list of TCMs to be included in the applicable implementation plan. This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)2. of this rule in the context of the state air quality implementation plan development process;

E. Making a determination, as required by paragraph (13)(C)1., whether past obstacles to implementation of TCMs which are behind the schedule established in the applicable implementation plan have been identified and are being overcome, and whether state and local agencies with influence over approvals or funding for TCMs are giving maximum priority to approval or funding for TCMs. This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)2. of this rule in the context of the transportation planning and TIP programming processes. This process shall also consider whether delays in TCM implementation necessitate revisions to the applicable implementation plan to remove TCMs or substitute TCMs or other emission reduction measures;

F. Notification of transportation plan or TIP revisions or amendments which merely add or delete exempt projects listed in section (23) or section (24). This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)2. of this rule in the context of the transportation planning and TIP programming processes. The MPO shall notify all conformity consulting agencies in writing within seven (7) calendar days after taking action to approve such exempt projects. The notification shall include enough information about the exempt projects for the consulting agencies to determine their agreement or disagreement that the projects are exempt under section (23) or section (24) of this rule;

G. Determining whether the project is included in the regional emissions analysis supporting the current conforming TIP's conformity determination, even if the project is not strictly included in the TIP for purposes of MPO project selection or endorsement, and whether the project's design concept and scope have not changed significantly from those which were included in the regional emissions analysis, or in a manner which would significantly impact use of the facility. This process shall be initiated by the MPO

and conducted in accordance with paragraph (5)(B)2. of this rule in the context of the TIP programming process;

H. Determining what forecast of vehicle miles traveled (VMT) to use in establishing or tracking emissions budgets, developing transportation plans, TIPs, or applicable implementation plans, or making conformity determinations. This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)3. of this rule regarding planning assumptions;

I. Determining the definition of reasonable professional practice for the purposes of section (20). This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)3. of this rule regarding planning assumptions; and

J. Determining whether the project sponsor or the MPO has demonstrated that the requirements of section (16) are satisfied without a particular mitigation or control measure, as provided in subsection (22)(D). This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)2. of this rule in the context of the transportation planning and TIP programming processes.

2. An interagency consultation process in accordance with subsection (5)(B) of this rule involving the MPO, the regional air quality advisory organization, the regional transportation policy advisory committee and the state air quality and transportation agencies for the following:

A. Evaluating events which will trigger new conformity determinations in addition to those triggering events established in section (4). This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)3. of this rule regarding planning assumptions when there is a significant change in any planning assumption (examples: new regional forecast of population and employment, actual vehicle miles traveled (VMT) estimates significantly different from planning projections, etc.); and

B. Consulting on emissions analysis for transportation activities which cross the borders of the MPOs or nonattainment or maintenance area or air basin. This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)2. of this rule.

3. Prior to establishing a metropolitan planning area for transportation planning that does not include the entire nonattainment or maintenance area, the interagency consultation process described in subsection (5)(B) of this rule shall be supplemented by a formal memorandum of agreement, incorporated in the applicable state implementation plan, exe-

cuted by the MPO and the state air quality and transportation agencies for cooperative planning and analysis. This executed memorandum of agreement shall specify procedures for determining conformity of all regionally significant transportation projects outside the metropolitan planning boundary for transportation planning and within the nonattainment or maintenance area.

A. The interagency consultation process established by the executed memorandum of agreement for such an area shall apply in addition to all other consultation requirements.

B. At a minimum, any memorandum of agreement establishing a state transportation planning area outside of the MPO metropolitan planning area for transportation planning, but within the nonattainment or maintenance area, shall provide for state air quality agency concurrence in conformity determinations for areas outside of the metropolitan planning boundary for transportation planning, but within the nonattainment or maintenance area. Such agreement shall also establish a process involving the MPO and the state transportation agency in cooperative planning and analysis for determining conformity of all projects outside the metropolitan planning area for transportation planning and within the nonattainment or maintenance area in the context of the total regional transportation system that serves the nonattainment or maintenance area.

4. An interagency consultation process shall be undertaken to ensure that plans for construction of regionally significant projects which are not FHWA/FTA projects (including projects for which alternative locations, design concept and scope, or the no-build option are still being considered), including those by recipients of funds designated under Title 23 U.S.C. or the Federal Transit Laws, are disclosed to the MPO on a regular basis, and to ensure that any changes to those plans are immediately disclosed. This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)2. of this rule in the context of the transportation planning and TIP programming processes. At a minimum, the disclosure procedures shall meet the requirements of subparagraph (5)(B)4.A.–C. of this rule.

A. The sponsor of any such regionally significant project, and any agency that becomes aware of any such project through applications for approval, permitting or funding shall disclose such project to the MPO in a timely manner. Such disclosure shall be made not later than the first occasion when any of the following actions is sought: any policy board action necessary for the project



to proceed, the issuance of administrative permits for the facility or for construction of the facility, the execution of a contract to design or construct the facility, the execution of any indebtedness for the facility, any final action of a board, commission or administrator authorizing or directing employees to proceed with design, permitting or construction of the project, or the execution of any contract to design or construct or any approval needed for any facility that is dependent on the completion of a regionally significant project. The sponsor of any potential regionally significant project shall disclose to the MPO each project for which alternatives have been identified through the NEPA process, and, in particular, any preferred alternative that may be a regionally significant project. This information shall be provided to the MPO in accordance with the time sequence and procedures established under paragraph (5)(B)2. of this rule for each transportation planning and TIP development process.

B. In the case of any such regionally significant project that has not been disclosed to the MPO and other agencies participating in the consultation process before action is taken to adopt or approve, such regionally significant project shall be deemed not to be included in the regional emissions analysis supporting the currently conforming TIP's conformity determination and not to be consistent with the motor vehicle emissions budget in the applicable implementation plan, for the purposes of section (19).

C. For the purposes of paragraph (5)(C)4. of this rule, the phrase adopt or approve of a regionally significant project means the first time any action necessary to authorizing a project occurs, such as any policy board action necessary for the project to proceed, the issuance of administrative permits for the facility or for construction of the facility, the execution of a contract to construct the facility, any final action of a board, commission or administrator authorizing or directing employees to proceed with construction of the project, or any written decision or authorization from the MPO that the project may be adopted or approved.

5. This interagency consultation process shall be undertaken in accordance with subsection (5)(B) of this rule involving the MPO and other recipients of funds designated under Title 23 U.S.C. or the Federal Transit Laws for assuming the location and design concept and scope of projects which are disclosed to the MPO as required by paragraph (5)(C)4. of this rule but whose sponsors have not yet decided these features in sufficient detail to perform the regional emissions analysis according to the requirements of section

(20). This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)3. of this rule as it relates to planning assumptions.

6. This interagency consultation process outlined in subsection (5)(B) of this rule involves the MPO, the regional transportation policy advisory committee, the regional air quality advisory organization, and the state transportation and air quality agencies shall be undertaken for the design, schedule, and funding of research and data collection efforts and regional transportation model development by the MPO (e.g., household/travel transportation surveys). This process shall be initiated by the MPO and conducted in accordance with paragraph (5)(B)3. of this rule as it relates to planning assumptions.

7. This process insures providing final documents (including applicable implementation plans and implementation plan revisions) and supporting information to each agency after approval or adoption. This process is applicable to all agencies described in paragraph (A)1. of this section, including federal agencies.

(D) Resolving Conflicts.

1. Any conflict among state agencies or between state agencies and the MPO regarding a final action on any conformity determination by the MPO on a plan or program subject to these consultation requirements shall be escalated to the governor(s), if the conflict cannot be resolved by the heads of the involved agencies. Such agencies shall make every effort to resolve any differences, including personal meetings between the heads of such agencies or their policy-level representatives, to the extent possible.

2. After the MPO has notified the state air quality agencies in writing of the disposition of all air quality agency comments on a proposed conformity determination, state air quality agencies shall have fourteen (14) calendar days from the date that the written notification is received to appeal such proposed determination of conformity to the governor of Missouri. If the Missouri air quality agency appeals to the governor of Missouri, the final conformity determination will automatically become contingent upon concurrence of the governor of Missouri. If the Kansas air quality agency presents an appeal to the governor of Missouri regarding a conflict involving both Kansas and Missouri agencies or the MPO, the final conformity determination will automatically become contingent upon concurrence of both the governor of Missouri and the governor of Kansas. The Missouri air quality agency shall provide notice of any appeal under this subsection to the MPO, and the state transportation agencies, and the

Kansas air quality agency. If neither state air quality agency appeals to the governor(s) within fourteen (14) days of receiving written notification, the MPO may proceed with the final conformity determination.

3. The governor of Missouri may delegate the role of hearing any such appeal under this subsection and of deciding whether to concur in the conformity determination to another official or agency within the state, but not to the head or staff of the Missouri air quality agency, the Missouri Air Conservation Commission or any local air quality agency, the Missouri transportation agency or the Missouri Highway Commission, or any agency that has responsibility for one (1) of these functions, or the MPO.

(E) Public Consultation Procedures. Affected agencies making conformity determinations on transportation plans, programs, and projects shall establish a proactive public involvement process. This process will provide opportunity for public review and comment prior to taking formal action on a conformity determination for all transportation plans and TIPs, consistent with the requirements of 23 CFR part 450 including part 450.316(b)(1), 450.322(c), and 450.324(c) as in effect on the date of adoption of this rule. The public shall be assured reasonable access to technical and policy information considered by the agency at the beginning of the public comment period and prior to taking formal action on a conformity determination for all transportation plans and TIPs, consistent with these requirements and those of 23 CFR 450.316(b). In addition, these agencies must specifically respond in writing to all public comments stating that known plans for a regionally significant project which is not receiving FHWA or FTA funding or approval have not been properly reflected in the emissions analysis supporting a proposed conformity finding for a transportation plan or TIP. These agencies shall also provide opportunity for public involvement in conformity determinations for projects where otherwise required by law (for example, NEPA). The opportunity for public involvement provided under this subsection shall include access to information, emissions data, analyses and modeling assumptions used to perform a conformity determination, in accordance with the provisions of paragraph (5)(B)4. of this rule, and the obligation of any such agency to consider and respond to significant comments. No transportation plan, TIP or project may be found to conform unless the determination of conformity has been subject to a public involvement process in accordance with this subsection, without regard to whether the DOT has certified any



process under 23 CFR part 450. Any charges imposed for public inspection and copying should be consistent with the fee schedule contained in 49 CFR 7.95.

(6) Content of Transportation Plans.

(A) Transportation Plans Adopted after January 1, 1997, in Serious, Severe, or Extreme Ozone Nonattainment Areas. If the metropolitan planning area contains an urbanized area population greater than two hundred thousand (>200,000), the transportation plan must specifically describe the transportation system envisioned for certain future years which shall be called horizon years.

1. The agency or organization developing the transportation plan, after consultation in accordance with section (5), may choose any years to be horizon years, subject to the following restrictions:

A. Horizon years may be no more than ten (10) years apart;

B. The first horizon year may be no more than ten (10) years from the base year used to validate the transportation demand planning model;

C. If the attainment year is in the time span of the transportation plan, the attainment year must be a horizon year; and

D. The last horizon year must be the last year of the transportation plan's forecast period.

2. For these horizon years—

A. The transportation plan shall quantify and document the demographic and employment factors influencing expected transportation demand, including land use forecasts, in accordance with implementation plan provisions and the consultation requirements specified by section (5);

B. The highway and transit system shall be described in terms of the regionally significant additions or modifications to the existing transportation network which the transportation plan envisions to be operational in the horizon years. Additions and modifications to the highway network shall be sufficiently identified to indicate intersections with existing regionally significant facilities, and to determine their effect on route options between transportation analysis zones. Each added or modified highway segment shall also be sufficiently identified in terms of its design concept and design scope to allow modeling of travel times under various traffic volumes, consistent with the modeling methods for area-wide transportation analysis in use by the MPO. Transit facilities, equipment, and services envisioned for the future shall be identified in terms of design concept, design scope, and operating policies that are

sufficient for modeling of their transit ridership. Additions and modifications to the transportation network shall be described sufficiently to show that there is a reasonable relationship between expected land use and the envisioned transportation system; and

C. Other future transportation policies, requirements, services, and activities, including intermodal activities, shall be described.

(B) Moderate Areas Reclassified to Serious. Ozone nonattainment areas which are reclassified from moderate to serious and have an urbanized population greater than two hundred thousand (>200,000) must meet the requirements of subsection (6)(A) of this rule within two (2) years from the date of reclassification.

(C) Transportation Plans for Other Areas. Transportation plans for other areas must meet the requirements of subsection (6)(A) of this rule at least to the extent it has been the previous practice of the MPO to prepare plans which meet those requirements. Otherwise, transportation plans must describe the transportation system envisioned for the future and must be sufficiently described within the transportation plans so that a conformity determination can be made according to the criteria and procedures of sections (9)–(17).

(D) Savings. The requirements of this section supplement other requirements of applicable law or regulation governing the format or content of transportation plans.

(7) Relationship of Transportation Plan and TIP Conformity with the NEPA Process. The degree of specificity required in the transportation plan and the specific travel network assumed for air quality modeling do not preclude the consideration of alternatives in the NEPA process or other project development studies. Should the NEPA process result in a project with design concept and scope significantly different from that in the transportation plan or TIP, the project must meet the criteria in sections (9)–(17) for projects not from a TIP before NEPA process completion.

(8) Fiscal Constraints for Transportation Plans and TIPs. Transportation plans and TIPs must be fiscally constrained consistent with DOT's metropolitan planning regulations at 23 CFR part 450 as in effect on the date of adoption of this rule in order to be found in conformity. The determination that a transportation plan or TIP is fiscally constrained shall be subject to consultation in accordance with section (5) of this rule.

(9) Criteria and Procedures for Determining Conformity of Transportation Plans, Programs, and Projects—General.

(A) In order for each transportation plan, program, and FHWA/FTA project to be found to conform, the MPO and DOT must demonstrate that the applicable criteria and procedures in sections (10)–(17) as listed in Table 1 in subsection (9)(B) of this rule are satisfied, and the MPO and DOT must comply with all applicable conformity requirements of implementation plans and this rule and of court orders for the area which pertain specifically to conformity. The criteria for making conformity determinations differ based on the action under review (transportation plans, TIPs, and FHWA/FTA projects), the relevant pollutant(s), and the status of the implementation plan.

(B) The following table indicates the criteria and procedures in sections (10)–(17) which apply for transportation plans, TIPs, and FHWA/FTA projects. Subsection (C) of this section explains when budget and emission reduction tests are required for ozone nonattainment and maintenance areas. Table 1 follows:

**Table 1. Conformity Criteria**

<b>All Actions at all times—</b>	
Section (10)	Latest planning assumptions
Section (11)	Latest emissions model
Section (12)	Consultation
<b>Transportation Plan—</b>	
Subsection (13)(B)	TCMs
Section (16) or Section (17)	Emissions budget or emission reduction
<b>TIP—</b>	
Subsection (13)(C)	TCMs
Section (16) or Section (17)	Emissions budget or emission reduction
<b>Project (From a Conforming Plan and TIP)—</b>	
Section (14)	Currently conforming plan and TIP
Section (15)	Project from a conforming plan and TIP
<b>Project (Not From a Conforming Plan and TIP)—</b>	
Subsection (13)(D)	TCMs
Section (14)	Currently conforming plan and TIP
Section (16) or Section (17)	Emissions budget or emission reduction

(C) Ozone Nonattainment and Maintenance Areas. In addition to the criteria listed in Table 1 in subsection (B) of this section that are required to be satisfied at all times, in ozone nonattainment and maintenance areas conformity determinations must include



a demonstration that the budget and/or emission reduction tests are satisfied as described in the following:

1. In ozone nonattainment and maintenance areas the budget test must be satisfied as required by section (16) for conformity determinations made—

A. Forty-five (45) days after a control strategy implementation plan revision or maintenance plan has been submitted to EPA, unless EPA has declared the motor vehicle emissions budget inadequate for transportation conformity purposes; or

B. After EPA has declared that the motor vehicle emissions budget in a submitted control strategy implementation plan revision or maintenance plan is adequate for transportation conformity purposes;

2. In ozone nonattainment areas that are required to submit a control strategy implementation plan revision (usually moderate and above areas), the emission reduction tests must be satisfied as required by section (17) for conformity determinations made—

A. During the first forty-five (45) days after a control strategy implementation plan revision or maintenance plan has been submitted to EPA, unless EPA has declared a motor vehicle emissions budget adequate for transportation conformity purposes; or

B. If EPA has declared the motor vehicle emissions budget in a submitted control strategy implementation plan revision or maintenance plan inadequate for transportation conformity purposes, and there is no previously established motor vehicle emissions budget in the approved implementation plan or a previously submitted control strategy implementation plan revision or maintenance plan;

3. An ozone nonattainment area must satisfy the emission reduction test for NO<sub>x</sub>, as required by section (17), if the implementation plan or plan submission that is applicable for the purposes of conformity determinations is a fifteen percent (15%) plan or Phase I attainment demonstration that does not include a motor vehicle emissions budget for NO<sub>x</sub>. The implementation plan will be considered to establish a motor vehicle emissions budget for NO<sub>x</sub> if the implementation plan or plan submission contains an explicit NO<sub>x</sub> motor vehicle emissions budget that is intended to act as a ceiling on future NO<sub>x</sub> emissions, and the NO<sub>x</sub> motor vehicle emissions budget is a net reduction from NO<sub>x</sub> emissions levels in 1990;

4. Ozone nonattainment areas that have not submitted a maintenance plan and that are not required to submit a control strategy implementation plan revision (usually

marginal and below areas) must satisfy one (1) of the following requirements:

A. The emission reduction tests required by section (17); or

B. The state shall submit to EPA an implementation plan revision that contains motor vehicle emissions budget(s) and an attainment demonstration, and the budget test required by section (16) must be satisfied using the submitted motor vehicle emissions budget(s) (as described in paragraph (C)1. of this section); and

5. Notwithstanding paragraphs (C)1. and (C)2. of this section, moderate and above ozone nonattainment areas with three (3) years of clean data that have not submitted a maintenance plan and that EPA has determined are not subject to the Clean Air Act reasonable further progress and attainment demonstration requirements must satisfy one (1) of the following requirements:

A. The emission reduction tests as required by section (17);

B. The budget test as required by section (16), using the motor vehicle emissions budgets in the submitted control strategy implementation plan (subject to the timing requirements of paragraph (C)1. of this section); or

C. The budget test as required by section (16), using the motor vehicle emissions of ozone precursors in the most recent year of clean data as motor vehicle emissions budgets, if such budgets are established by the EPA rulemaking that determines that the area has clean data.

(10) Criteria and Procedures—Latest Planning Assumptions.

(A) The conformity determination, with respect to all other applicable criteria in sections (11)–(17), must be based upon the most recent planning assumptions in force at the time of the conformity determination. The conformity determination must satisfy the requirements of subsections (10)(B)–(F) of this rule.

(B) Assumptions must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other agency authorized to make such estimates and approved by the MPO. The conformity determination must also be based on the latest assumptions about current and future background concentrations. Any revisions to these estimates used as part of the conformity determination, including projected shifts in geographic location or level of population, employment, travel, and congestion, must be approved by the MPO, and shall be subject to consultation in accordance with section (5).

(C) The conformity determination for each transportation plan and TIP must discuss how transit operating policies (including fares and service levels) and assumed transit ridership have changed since the previous conformity determination.

(D) The conformity determination must include reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time.

(E) The conformity determination must use the latest existing information regarding the effectiveness of the TCMs and other implementation plan measures which have already been implemented.

(F) Key assumptions shall be specified and included in the draft documents and supporting materials used for the interagency and public consultation required by section (5).

(11) Criteria and Procedures—Latest Emissions Model.

(A) The conformity determination must be based on the latest emission estimation model available. This criterion is satisfied if the most current version of the motor vehicle emissions model specified by EPA for use in the preparation or revision of implementation plans in that state or area is used for the conformity analysis.

(B) EPA will consult with DOT to establish a grace period following the specification of any new model.

1. The grace period will be no less than three (3) months and no more than twenty-four (24) months after notice of availability is published in the *Federal Register*.

2. The length of the grace period will depend on the degree of change in the model and the scope of replanning likely to be necessary by MPOs in order to assure conformity. If the grace period will be longer than three (3) months, EPA will announce the appropriate grace period in the *Federal Register*.

(C) Transportation plan and TIP conformity analyses for which the emissions analysis was begun during the grace period or before the *Federal Register* notice of availability of the latest emission model may continue to use the previous version of the model. Conformity determinations for projects may also be based on the previous model if the analysis was begun during the grace period or before the *Federal Register* notice of availability, and if the final environmental document for the project is issued no more than three (3) years after the issuance of the draft environmental document.

(12) Criteria and Procedures—Consultation. Conformity must be determined according to



the consultation procedures in this rule and in the applicable implementation plan, and according to the public involvement procedures established in compliance with 23 CFR part 450. Until the implementation plan is fully approved by EPA, the conformity determination must be made according to paragraph (5)(A)2. and subsection (5)(E) and the requirements of 23 CFR part 450.

(13) Criteria and Procedures—Timely Implementation of TCMs.

(A) The transportation plan, TIP, or any FHWA/FTA project which is not from a conforming plan and TIP must provide for the timely implementation of TCMs from the applicable implementation plan.

(B) For transportation plans, this criterion is satisfied if the following two (2) conditions are met:

1. The transportation plan, in describing the envisioned future transportation system, provides for the timely completion or implementation of all TCMs in the applicable implementation plan which are eligible for funding under Title 23 U.S.C. or the Federal Transit Laws, consistent with schedules included in the applicable implementation plan; and

2. Nothing in the transportation plan interferes with the implementation of any TCM in the applicable implementation plan.

(C) For TIPs, this criterion is satisfied if the following conditions are met:

1. An examination of the specific steps and funding source(s) needed to fully implement each TCM indicates that TCMs which are eligible for funding under Title 23 U.S.C. or the Federal Transit Laws, are on or ahead of the schedule established in the applicable implementation plan, or, if such TCMs are behind the schedule established in the applicable implementation plan, the MPO and DOT have determined that past obstacles to implementation of the TCMs have been identified and have been or are being overcome, and that all state and local agencies with influence over approvals or funding for TCMs are giving maximum priority to approval or funding of TCMs over other projects within their control, including projects in locations outside the nonattainment or maintenance area.

2. If TCMs in the applicable implementation plan have previously been programmed for federal funding but the funds have not been obligated and the TCMs are behind the schedule in the implementation plan, then the TIP cannot be found to conform if the funds intended for those TCMs are reallocated to projects in the TIP other than TCMs, or if there are no other TCMs in the TIP, if the

funds are reallocated to projects in the TIP other than projects which are eligible for federal funding intended for air quality improvement projects, e.g., the Congestion Mitigation and Air Quality Improvement Program; and

3. Nothing in the TIP may interfere with the implementation of any TCM in the applicable implementation plan.

(D) For FHWA/FTA projects which are not from a conforming transportation plan and TIP, this criterion is satisfied if the project does not interfere with the implementation of any TCM in the applicable implementation plan.

(14) Criteria and Procedures—Currently Conforming Transportation Plan and TIP. There must be a currently conforming transportation plan and currently conforming TIP at the time of project approval.

(A) Only one (1) conforming transportation plan or TIP may exist in an area at any time; conformity determinations of a previous transportation plan or TIP expire once the current plan or TIP is found to conform by DOT. The conformity determination on a transportation plan or TIP will also lapse if conformity is not determined according to the frequency requirements specified in section (4) of this rule.

(B) This criterion is not required to be satisfied at the time of project approval for a TCM specifically included in the applicable implementation plan, provided that all other relevant criteria of this subsection are satisfied.

(15) Criteria and Procedures—Projects From a Plan and TIP.

(A) The project must come from a conforming plan and program. If this criterion is not satisfied, the project must satisfy all criteria in Table 1 of subsection (9)(B) for a project not from a conforming transportation plan and TIP. A project is considered to be from a conforming transportation plan if it meets the requirements of subsection (15)(B) of this rule and from a conforming program if it meets the requirements of subsection (15)(C) of this rule. Special provisions for TCMs in an applicable implementation plan are provided in subsection (15)(D) of this rule.

(B) A project is considered to be from a conforming transportation plan if one (1) of the following conditions applies:

1. For projects which are required to be identified in the transportation plan in order to satisfy section (6) Content of Transportation Plans of this rule, the project is specifically included in the conforming

transportation plan and the project's design concept and scope have not changed significantly from those which were described in the transportation plan, or in a manner which would significantly impact use of the facility; or

2. For projects which are not required to be specifically identified in the transportation plan, the project is identified in the conforming transportation plan, or is consistent with the policies and purpose of the transportation plan and will not interfere with other projects specifically included in the transportation plan.

(C) A project is considered to be from a conforming program if the following conditions are met:

1. The project is included in the conforming TIP and the design concept and scope of the project were adequate at the time of the TIP conformity determination to determine its contribution to the TIP's regional emissions, and the project design concept and scope have not changed significantly from those which were described in the TIP; and

2. If the TIP describes a project design concept and scope which includes project-level emissions mitigation or control measures, written commitments to implement such measures must be obtained from the project sponsor and/or operator as required by subsection (22)(A) in order for the project to be considered from a conforming program. Any change in these mitigation or control measures that would significantly reduce their effectiveness constitutes a change in the design concept and scope of the project.

(D) TCMs. This criterion is not required to be satisfied for TCMs specifically included in an applicable implementation plan.

(16) Criteria and Procedures—Motor Vehicle Emissions Budget.

(A) The transportation plan, TIP, and project not from a conforming transportation plan and TIP must be consistent with the motor vehicle emissions budget(s) in the applicable implementation plan (or implementation plan submission). This criterion applies as described in subsection (9)(C). This criterion is satisfied if it is demonstrated that emissions of the pollutants or pollutant precursors described in subsection (C) of this section are less than or equal to the motor vehicle emission budget(s) established in the applicable implementation plan or implementation plan submission.

(B) Consistency with the motor vehicle emissions budget(s) must be demonstrated for each year for which the applicable (and/or submitted) implementation plan specifically



establishes motor vehicle emissions budget(s), for the last year of the transportation plan's forecast period, and for any intermediate years as necessary so that the years for which consistency is demonstrated are no more than ten (10) years apart, as follows:

1. Until a maintenance plan is submitted—

A. Emissions in each year (such as milestone years and the attainment year) for which the control strategy implementation plan revision establishes motor vehicle emissions budget(s) must be less than or equal to that year's motor vehicle emissions budget(s); and

B. Emissions in years for which no motor vehicle emissions budget(s) are specifically established must be less than or equal to the motor vehicle emissions budget(s) established for the most recent prior year. For example, emissions in years after the attainment year for which the implementation plan does not establish a budget must be less than or equal to the motor vehicle emissions budget(s) for the attainment year.

2. When a maintenance plan has been submitted—

A. Emissions must be less than or equal to the motor vehicle emissions budget(s) established for the last year of the maintenance plan, and for any other years for which the maintenance plan establishes motor vehicle emissions budgets. If the maintenance plan does not establish motor vehicle emissions budgets for any years other than the last year of the maintenance plan, the demonstration of consistency with the motor vehicle emissions budget(s) must be accompanied by a qualitative finding that there are no factors which would cause or contribute to a new violation or exacerbate an existing violation in the years before the last year of the maintenance plan. The interagency consultation process required by section (5) shall determine what must be considered in order to make such a finding;

B. For years after the last year of the maintenance plan, emissions must be less than or equal to the maintenance plan's motor vehicle emissions budget(s) for the last year of the maintenance plan; and

C. If an approved control strategy implementation plan has established motor vehicle emissions budgets for years in the time frame of the transportation plan, emissions in these years must be less than or equal to the control strategy implementation plan's motor vehicle emissions budget(s) for these years.

(C) Consistency with the motor vehicle emissions budget(s) must be demonstrated for each pollutant or pollutant precursor in sub-

section (2)(B) for which the area is in nonattainment or maintenance and for which the applicable implementation plan (or implementation plan submission) establishes a motor vehicle emissions budget.

(D) Consistency with the motor vehicle emissions budget(s) must be demonstrated by including emissions from the entire transportation system, including all regionally significant projects contained in the transportation plan and all other regionally significant highway and transit projects expected in the nonattainment or maintenance area in the time frame of the transportation plan.

1. Consistency with the motor vehicle emissions budget(s) must be demonstrated with a regional emissions analysis that meets the requirements of section (20) and subparagraph (5)(C)1.A.

2. The regional emissions analysis may be performed for any years in the time frame of the transportation plan provided they are not more than ten (10) years apart and provided the analysis is performed for the attainment year (if it is in the time frame of the transportation plan) and the last year of the plan's forecast period. Emissions in years for which consistency with motor vehicle emissions budgets must be demonstrated, as required in subsection (B) of this section, may be determined by interpolating between the years for which the regional emissions analysis is performed.

(E) Motor Vehicle Emissions Budgets in Submitted Control Strategy Implementation Plan Revisions and Submitted Maintenance Plans.

1. Consistency with the motor vehicle emissions budgets in submitted control strategy implementation plan revisions or maintenance plans must be demonstrated if EPA has declared the motor vehicle emissions budget(s) adequate for transportation conformity purposes, or beginning forty-five (45) days after the control strategy implementation plan revision or maintenance plan has been submitted (unless EPA has declared the motor vehicle emissions budget(s) inadequate for transportation conformity purposes). However, submitted implementation plans do not supercede the motor vehicle emissions budgets in approved implementation plans for the period of years addressed by the approved implementation plan.

2. If EPA has declared an implementation plan submission's motor vehicle emissions budget(s) inadequate for transportation conformity purposes, the inadequate budget(s) shall not be used to satisfy the requirements of this section. Consistency with the previously established motor vehicle emissions budget(s) must be demonstrated. If

there are no previous approved implementation plans or implementation plan submissions with motor vehicle emissions budgets, the emission reduction tests required by section (17) must be satisfied.

3. If EPA declares an implementation plan submission's motor vehicle emissions budget(s) inadequate for transportation conformity purposes more than forty-five (45) days after its submission to EPA, and conformity of a transportation plan or TIP has already been determined by DOT using the budget(s), the conformity determination will remain valid. Projects included in that transportation plan or TIP could still satisfy sections (14) and (15), which require a currently conforming transportation plan and TIP to be in place at the time of a project's conformity determination and that projects come from a conforming transportation plan and TIP.

4. EPA will not find a motor vehicle emissions budget in a submitted control strategy implementation plan revision or maintenance plan to be adequate for transportation conformity purposes unless the following minimum criteria are satisfied:

A. The submitted control strategy implementation plan revision or maintenance plan was endorsed by the governor (or his or her designee) and was subject to a state public hearing;

B. Before the control strategy implementation plan or maintenance plan was submitted to EPA, consultation among federal, state, and local agencies occurred; full implementation plan documentation was provided to EPA; and EPA's stated concerns, if any, were addressed;

C. The motor vehicle emissions budget(s) is clearly identified and precisely quantified;

D. The motor vehicle emissions budget(s), when considered together with all other emissions sources, is consistent with applicable requirements for reasonable further progress, attainment, or maintenance (whichever is relevant to the given implementation plan submission);

E. The motor vehicle emissions budget(s) is consistent with and clearly related to the emissions inventory and the control measures in the submitted control strategy implementation plan revision or maintenance plan; and

F. Revisions to previously submitted control strategy implementation plans or maintenance plans explain and document any changes to previously submitted budgets and control measures; impacts on point and area source emissions; any changes to established





safety margins (see section (1) for definition); and reasons for the changes (including the basis for any changes related to emission factors or estimates of vehicle miles traveled).

5. Before determining the adequacy of a submitted motor vehicle emissions budget, EPA will review the state's compilation of public comments and response to comments that are required to be submitted with any implementation plan. EPA will document its consideration of such comments and responses in a letter to the state indicating the adequacy of the submitted motor vehicle emissions budget.

6. When the motor vehicle emissions budget(s) used to satisfy the requirements of this section are established by an implementation plan submittal that has not yet been approved or disapproved by EPA, the MPO and DOT's conformity determinations will be deemed to be a statement that the MPO and DOT are not aware of any information that would indicate that emissions consistent with the motor vehicle emissions budget will cause or contribute to any new violation of any standard; increase the frequency or severity of any existing violation of any standard; or delay timely attainment of any standard or any required interim emission reductions or other milestones.

(17) Criteria and Procedures—Emission Reductions in Area without Motor Vehicle Emissions Budgets.

(A) The transportation plan, TIP, and project not from a conforming transportation plan and TIP must contribute to emissions reductions. This criterion applies as described in subsection (9)(C). It applies to the net effect of the action (transportation plan, TIP, or project not from a conforming transportation plan and TIP) on motor vehicle emissions from the entire transportation system.

(B) This criterion may be met in moderate and above ozone nonattainment areas that are subject to the reasonable further progress requirements of CAA section 182(b)(1) and in moderate with design value greater than 12.7 ppm and serious CO nonattainment areas if a regional emissions analysis that satisfies the requirements of section (20) and subsections (E) through (H) of this section demonstrates that for each analysis year and for each of the pollutants described in subsection (D) of this section—

1. The emissions predicted in the "Action" scenario are less than the emissions predicted in the "Baseline" scenario, and this can be reasonably expected to be true in the periods between the analysis years; and

2. The emissions predicted in the "Action" scenario are lower than 1990 emissions by any nonzero amount.

(C) This criterion may be met in PM<sub>10</sub> and NO<sub>2</sub> nonattainment areas; marginal and below ozone nonattainment areas and other ozone nonattainment areas that are not subject to the reasonable further progress requirements of CAA section 182(b)(1); and moderate with design value less than 12.7 ppm and below CO nonattainment areas if a regional emissions analysis that satisfies the requirements of section (20) and subsections (E) and (F) of this section demonstrates that for each analysis year and for each of the pollutants described in subsection (D) of this section, one of the following requirements is met:

1. The emissions predicted in the "Action" scenario are less than the emissions predicted in the "Baseline" scenario, and this can be reasonably expected to be true in the periods between the analysis years; or

2. The emissions predicted in the "Action" scenario are not greater than baseline emissions. Baseline emissions are those estimated to have occurred during calendar year 1990, unless a conformity plan defines the baseline emissions for a PM<sub>10</sub> area to be those occurring in a different calendar year for which a baseline emissions inventory was developed for the purpose of developing a control strategy implementation plan.

(D) Pollutants. The regional emissions analysis must be performed for the following pollutants:

1. VOC in ozone areas;

2. NO<sub>x</sub> in ozone areas, unless the EPA administrator determines that additional reductions of NO<sub>x</sub> would not contribute to attainment;

3. CO in CO areas;

4. PM<sub>10</sub> in PM<sub>10</sub> areas;

5. Transportation-related precursors of PM<sub>10</sub> in PM<sub>10</sub> nonattainment and maintenance areas if the EPA regional administrator or the director of the state air agency has made a finding that such precursor emissions from within the area are a significant contributor to the PM<sub>10</sub> nonattainment problem and has so notified the MPO and DOT; and

6. NO<sub>x</sub> in NO<sub>2</sub> areas.

(E) Analysis Years. The regional emissions analysis must be performed for analysis years that are no more than ten (10) years apart. The first analysis year must be no more than five (5) years beyond the year in which the conformity determination is being made. The last year of transportation plan's forecast period must also be an analysis year.

(F) "Baseline" Scenario. The regional emissions analysis required by subsections (B) and (C) of this section must estimate the emissions that would result from the

"Baseline" scenario in each analysis year. The "Baseline" scenario must be defined for each of the analysis years. The "Baseline" scenario is the future transportation system that will result from current programs, including the following (except that exempt projects listed in section (23) and projects exempt from regional emissions analysis as listed in section (24) need not be explicitly considered):

1. All in-place regionally significant highway and transit facilities, services and activities;

2. All ongoing travel demand management or transportation system management activities; and

3. Completion of all regionally significant projects, regardless of funding source, which are currently under construction or are undergoing right-of-way acquisition (except for hardship acquisition and protective buying); come from the first year of the previously conforming transportation plan and/or TIP; or have completed the NEPA process.

(G) "Action" scenario. The regional emissions analysis required by subsections (B) and (C) of this section must estimate the emissions that would result from the "Action" scenario in each analysis year. The "Action" scenario must be defined for each of the analysis years. The "Action" scenario is the transportation system that would result from the implementation of the proposed action (transportation plan, TIP, or project not from a conforming transportation plan and TIP) and all other expected regionally significant projects in the nonattainment area. The "Action" scenario must include the following (except that exempt projects listed in section (23) and projects exempt from regional emissions analysis as listed section (24) need not be explicitly considered):

1. All facilities, services, and activities in the "Baseline" scenario;

2. Completion of all TCMs and regionally significant projects (including facilities, services, and activities) specifically identified in the proposed transportation plan which will be operational or in effect in the analysis year, except that regulatory TCMs may not be assumed to begin at a future time unless the regulation is already adopted by the enforcing jurisdiction or the TCM is identified in the applicable implementation plan;

3. All travel demand management programs and transportation system management activities known to the MPO, but not included in the applicable implementation plan or utilizing any federal funding or approval, which have been fully adopted and/or funded by the enforcing jurisdiction or sponsoring



agency since the last conformity determination;

4. The incremental effects of any travel demand management programs and transportation system management activities known to the MPO, but not included in the applicable implementation plan or utilizing any federal funding or approval, which were adopted and/or funded prior to the date of the last conformity determination, but which have been modified since then to be more stringent or effective;

5. Completion of all expected regionally significant highway and transit projects which are not from a conforming transportation plan and TIP; and

6. Completion of all expected regionally significant non-FHWA/FTA highway and transit projects that have clear funding sources and commitments leading toward their implementation and completion by the analysis year.

(H) Projects not from a conforming transportation plan and TIP. For the regional emissions analysis required by subsections (B) and (C) of this section, if the project which is not from a conforming transportation plan and TIP is a modification of a project currently in the plan or TIP, the “Baseline” scenario must include the project with its original design concept and scope, and the “Action” scenario must include the project with its new design concept and scope.

#### (18) Consequences of Control Strategy Implementation Plan Failures.

##### (A) Disapprovals.

1. If EPA disapproves any submitted control strategy implementation plan revision (with or without a protective findings), the conformity status of the transportation plan and TIP shall lapse on the date that highway sanctions as a result of the disapproval are imposed on the nonattainment area under section 179(b)(1) of the CAA. No new transportation plan, TIP, or project may be found to conform until another control strategy implementation plan revision fulfilling the same CAA requirements is submitted and conformity to this submission is determined.

2. If EPA disapproves a submitted control strategy implementation plan revision without making a protective finding, then beginning one hundred twenty (120) days after such disapproval, only projects in the first three (3) years of the currently conforming transportation plan and TIP may be found to conform. This means that beginning one hundred twenty (120) days after disapproval without a protective finding, no transportation plan, TIP, or project not in the first three

(3) years of the currently conforming plan and TIP may be found to conform until another control strategy implementation plan revision fulfilling the same CAA requirements is submitted and conformity to this submission is determined. During the first one hundred twenty (120) days following EPA’s disapproval without a protective finding, transportation plan, TIP, and project conformity determinations shall be made using the motor vehicle emissions budget(s) in the disapproved control strategy implementation plan revision, unless another control strategy implementation plan revision has been submitted and its motor vehicle emissions budget(s) applies for transportation conformity purposes, pursuant to section (9).

3. In disapproving a control strategy implementation plan revision, EPA would give a protective finding where a submitted plan contains adopted control measures or written commitments to adopt enforceable control measures that fully satisfy the emissions reductions requirements relevant to the statutory provision for which the implementation plan revision was submitted, such as reasonable further progress or attainment.

(B) Failure to Submit and Incompleteness. In areas where EPA notifies the state, MPO, and DOT of the state’s failure to submit a control strategy implementation plan or submission of an incomplete control strategy implementation plan revision, (either of which initiates the sanction process under CAA section 179 or 110(m)), the conformity status of the transportation plan and TIP shall lapse on the date that highway sanctions are imposed on the nonattainment area for such failure under section 179(b)(1) of the CAA, unless the failure has been remedied and acknowledged by a letter from the EPA regional administrator.

(C) Federal Implementation Plans. If EPA promulgates a federal implementation plan that contains motor vehicle emissions budget(s) as a result of a state failure, the conformity lapse imposed by this section because of that state failure is removed.

(19) Requirements for Adoption or Approval of Projects by Other Recipients of Funds Designated under Title 23 U.S.C. or the Federal Transit Laws. No recipient of federal funds designated under Title 23 U.S.C. or the Federal Transit Laws shall adopt or approve a regionally significant highway or transit project, regardless of funding source, unless the recipient finds that the requirements of one of the following are met:

(A) The project was included in the first three (3) years of the most recently conforming transportation plan and TIP (or the con-

formity determination’s regional emissions analyses), even if conformity status is currently lapsed; and the project’s design concept and scope has not changed significantly from those analyses; or

(B) There is a currently conforming transportation plan and TIP, and a new regional emissions analysis including the project and the currently conforming transportation plan and TIP demonstrates that the transportation plan and TIP would still conform if the project were implemented (consistent with the requirements of sections (16) and/or (17) for a project not from a conforming transportation plan and TIP).

#### (20) Procedures for Determining Regional Transportation-Related Emissions.

##### (A) General Requirements.

1. The regional emissions analysis required by section (16) and section (17) of this rule for the transportation plan, TIP, or project not from a conforming plan and TIP must include all regionally significant projects expected in the nonattainment or maintenance area. The analysis shall include FHWA/FTA projects proposed in the transportation plan and TIP and all other regionally significant projects which are disclosed to the MPO as required by section (5) of this rule. Projects which are not regionally significant are not required to be explicitly modeled, but vehicle miles traveled (VMT) from such projects must be estimated in accordance with reasonable professional practice. The effects of TCMs and similar projects that are not regionally significant may also be estimated in accordance with reasonable professional practice.

2. The emissions analysis may not include for emissions reduction credit any TCMs or other measures in the applicable implementation plan which have been delayed beyond the scheduled date(s) until such time as their implementation has been assured. If the measure has been partially implemented and it can be demonstrated that it is providing quantifiable emission reduction benefits, the emissions analysis may include that emissions reduction credit.

3. Emissions reduction credit from projects, programs, or activities which require a regulatory action in order to be implemented may not be included in the emissions analysis unless:

A. The regulatory action is already adopted by the enforcing jurisdiction;

B. The project, program, or activity is included in the applicable implementation plan;

C. The control strategy implementation plan submission or maintenance plan



submission that establishes the motor vehicle emissions budget(s) for the purposes of section (16) contains a written commitment to the project, program, or activity by the agency with authority to implement it; or

D. EPA has approved an opt-in to a federally enforced program, EPA has promulgated the program (if the control program is a federal responsibility, such as tailpipe standards), or the Clean Air Act requires the program without need for individual state action and without any discretionary authority for EPA to set its stringency, delay its effective date, or not implement the program.

4. Notwithstanding paragraph (20)(A)3. of this rule, emission reduction credit from control measures that are not included in the transportation plan and TIP and that do not require a regulatory action in order to be implemented may not be included in the emissions analysis unless the conformity determination includes written commitments to implementation from the appropriate entities.

A. Persons or entities voluntarily committing to control measures must comply with the obligations of such commitments.

B. Written commitments to mitigation measures must be obtained prior to a conformity determination, and project sponsors must comply with such commitments.

5. A regional emissions analysis for the purpose of satisfying the requirements of section (17) must make the same assumptions in both the “Baseline” and “Action” scenarios regarding control measures that are external to the transportation system itself, such as vehicle tailpipe or evaporative emission standards, limits on gasoline volatility, vehicle inspection and maintenance programs, and oxygenated or reformulated gasoline or diesel fuel.

6. The ambient temperatures used for the regional emissions analysis shall be consistent with those used to establish the emissions budget in the applicable implementation plan. All other factors, for example the fraction of travel in a hot stabilized engine mode, must be consistent with the applicable implementation plan, unless modified after interagency consultation in accordance with subparagraph (5)(C)1.A. to incorporate additional or more geographically specific information or represent a logically estimated trend in such factors beyond the period considered in the applicable implementation plan.

7. Reasonable methods shall be used to estimate nonattainment or maintenance area vehicle miles traveled (VMT) on off-network roadways within the urban transportation planning area, and on roadways outside the urban transportation planning area.

(B) Regional emissions analysis in serious, severe, and extreme ozone nonattainment areas must meet the requirements of paragraphs (B)1. through 3. of this section if their metropolitan planning area contains an urbanized area population over two hundred thousand (200,000).

1. Beginning January 1, 1997, estimates of regional transportation-related emissions used to support conformity determinations must be made at a minimum using network-based travel models according to procedures and methods that are available and in practice and supported by current and available documentation. These procedures, methods, and practices are available from DOT and will be updated periodically. Agencies must discuss these modeling procedures and practices through the interagency consultation process, as required by subparagraph (5)(C)1.A. Network-based travel models must at a minimum satisfy the following requirements:

A. Network-based travel models must be validated against observed counts (peak and off-peak, if possible) for a base year that is not more than ten (10) years prior to the date of the conformity determination. Model forecasts must be analyzed for reasonableness and compared to historical trends and other factors, and the results must be documented;

B. Land use, population, employment, and other network-based travel model assumptions must be documented and based on the best available information;

C. Scenarios of land development and use must be consistent with the future transportation system alternatives for which emissions are being estimated. The distribution of employment and residences for different transportation options must be reasonable;

D. A capacity-sensitive assignment methodology must be used, and emissions estimates must be based on a methodology which differentiates between peak and off-peak link volumes and speeds and uses speeds based on final assigned volumes;

E. Zone-to-zone travel impedances used to distribute trips between origin and destination pairs must be in reasonable agreement with the travel times that are estimated from final assigned traffic volumes. Where use of transit currently is anticipated to be a significant factor in satisfying transportation demand, these times should also be used for modeling mode splits; and

F. Network-based travel models must be reasonably sensitive to changes in the time(s), cost(s), and other factors affecting travel choices.

2. Reasonable methods in accordance with good practice must be used to estimate traffic speeds and delays in a manner that is

sensitive to the estimated volume of travel on each roadway segment represented in the network-based travel model.

3. Highway Performance Monitoring System (HPMS) estimates of vehicle miles traveled (VMT) shall be considered the primary measure of VMT within the portion of the nonattainment or maintenance area and for the functional classes of roadways included in HPMS, for urban areas which are sampled on a separate urban area basis. For areas with network-based travel models, a factor (or factors) may be developed to reconcile and calibrate the network-based travel model estimates of VMT in the base year of its validation to the HPMS estimates for the same period. These factors may then be applied to model estimates of future VMT. In this factoring process, consideration will be given to differences between HPMS and network-based travel models, such as differences in the facility coverage of the HPMS and the modeled network description. Locally developed count-based programs and other departures from these procedures are permitted subject to the interagency consultation procedures of subparagraph (5)(C)1.A.

(C) In all areas not otherwise subject to subsection (B) of this section, regional emissions analyses must use those procedures described in subsection (B) of this section if the use of those procedures has been the previous practice of the MPO. Otherwise, areas not subject to subsection (B) of this section may estimate regional emissions using any appropriate methods that account for VMT growth by, for example, extrapolating historical VMT or projecting future VMT by considering growth in population and historical growth trends for VMT per person. These methods must also consider future economic activity, transit alternatives, and transportation system policies.

(D) PM<sub>10</sub> from Construction-Related Fugitive Dust.

1. For areas in which the implementation plan does not identify construction-related fugitive PM<sub>10</sub> as a contributor to the nonattainment problem, the fugitive PM<sub>10</sub> emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis.

2. In PM<sub>10</sub> nonattainment and maintenance areas with implementation plans which identify construction-related fugitive PM<sub>10</sub> as a contributor to the nonattainment problem, the regional PM<sub>10</sub> emissions analysis shall consider construction-related fugitive PM<sub>10</sub> and shall account for the level of construction activity, the fugitive PM<sub>10</sub> control measures in the applicable implementation plan, and the dust-producing capacity of the proposed activities.





(E) Reliance on Previous Regional Emissions Analysis.

1. The TIP may be demonstrated to satisfy the requirements of section (16) Motor Vehicle Emissions Budget or section (17) Emissions Reductions in Areas without Motor Vehicle Emissions Budgets of this rule without new regional analysis if the regional emissions analysis already performed for the plan also applies to the TIP. This requires a demonstration that—

A. The TIP contains all projects which must be started in the TIP's time frame in order to achieve the highway and transit system envisioned by the transportation plan;

B. All TIP projects which are regionally significant are included in the transportation plan with design concept and scope adequate to determine their contribution to the transportation plan's regional emissions at the time of the transportation plan's conformity determination; and

C. The design concept and scope of each regionally significant project in the TIP is not significantly different from that described in the transportation plan.

2. A project which is not from a conforming transportation plan and a conforming TIP may be demonstrated to satisfy the requirements of section (16) or section (17) of this rule without additional regional emissions analysis if allocating funds to the project will not delay the implementation of projects in the transportation plan or TIP which are necessary to achieve the highway and transit system envisioned by the transportation plan, and if the project is either—

A. Not regionally significant; or

B. Included in the conforming transportation plan (even if it is not specifically included in the latest conforming TIP) with design concept and scope adequate to determine its contribution to the transportation plan's regional emissions at the time of the transportation plan's conformity determination, and the design concept and scope of the project is not significantly different from that described in the transportation plan.

(21) Using the Motor Vehicle Emissions Budget in the Applicable Implementation Plan (or Implementation Plan Submission).

(A) In interpreting an applicable implementation plan (or implementation plan submission) with respect to its motor vehicle emissions budget(s), the MPO and DOT may not infer additions to the budget(s) that are not explicitly intended by the implementation plan (or submission). Unless the implementation plan explicitly quantifies the amount by which motor vehicle emissions could be higher while still allowing a demonstration of

compliance with the milestone, attainment, or maintenance requirement and explicitly states an intent that some or all of this additional amount should be available to the MPO and DOT in the emission budget for conformity purposes, the MPO may not interpret the budget to be higher than the implementation plan's estimate of future emissions. This applies in particular to applicable implementation plans (or submissions) which demonstrate that after implementation of control measures in the implementation plan—

1. Emissions from all sources will be less than the total emissions that would be consistent with a required demonstration of an emissions reduction milestone;

2. Emissions from all sources will result in achieving attainment prior to the attainment deadline and/or ambient concentrations in the attainment deadline year will be lower than needed to demonstrate attainment; or

3. Emissions will be lower than needed to provide for continued maintenance.

(B) If an applicable implementation plan submitted before November 24, 1993, demonstrates that emissions from all sources will be less than the total emissions that would be consistent with attainment and quantifies that "safety margin", the state may submit an implementation plan revision which assigns some or all of this safety margin to highway and transit motor vehicle sources for the purposes of conformity. Such an implementation plan revision, once it is endorsed by the governor and has been subject to a public hearing, may be used for the purposes of transportation conformity before it is approved by EPA.

(C) A conformity demonstration shall not trade emissions among budgets which the applicable implementation plan (or implementation plan submission) allocates for different pollutants or precursors, or among budgets allocated to motor vehicles and other sources, unless the implementation plan establishes mechanisms for such trades.

(D) If the applicable implementation plan (or implementation plan submission) estimates future emissions by geographic subarea of the nonattainment area, the MPO and DOT are not required to consider this to establish subarea budgets, unless the applicable implementation plan (or implementation plan submission) explicitly indicates an intent to create such subarea budgets for the purposes of conformity.

(E) If a nonattainment area includes more than one MPO, the implementation plan may establish motor vehicle emissions budgets for each MPO, or else the MPOs must collectively make a conformity determination for the entire nonattainment area.

(22) Enforceability of Design Concept and Scope and Project-Level Mitigation and Control Measures.

(A) Prior to determining that a transportation project is in conformity, the MPO, other recipient of funds designated under Title 23 U.S.C. or the Federal Transit Laws, FHWA, or FTA must obtain from the project sponsor and/or operator written commitments to implement in the construction of the project and operation of the resulting facility or service any project-level mitigation or control measures which are identified as conditions for NEPA process completion with respect to local PM<sub>10</sub> or CO impacts. Before a conformity determination is made, written commitments must also be obtained for project-level mitigation or control measures which are conditions for making conformity determinations for a transportation plan or TIP and are included in the project design concept and scope which is used in the regional emissions analysis required by sections (16) Motor Vehicle Emissions Budget and (17) Emissions Reductions in Areas Without Motor Vehicles Emissions Budgets.

(B) Project sponsors voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

(C) Written commitments to mitigation measures must be obtained prior to a conformity determination, and project sponsors must comply with such commitments.

(D) If the MPO or project sponsor believes the mitigation or control measure is no longer necessary for conformity, the project sponsor or operator may be relieved of its obligation to implement the mitigation or control measure if it can demonstrate that the applicable emission budget requirements of section (16) and emission reduction requirements of section (17) are satisfied without the mitigation or control measure, and so notifies the agencies involved in the interagency consultation process required under section (5). The MPO and DOT must find that the transportation plan and TIP still satisfy the applicable requirements of sections (16) and/or (17), and therefore that the conformity determinations for the transportation plan, TIP, and project are still valid. This finding is subject to the applicable public consultation requirements in subsection (5)(E) for conformity determination for projects.

(23) Exempt Projects. Notwithstanding the other requirements of this rule, highway and transit projects of the types listed in Table 2 of this section are exempt from the requirement to determine conformity. Such projects may proceed toward implementation even in the absence of a conforming transportation



plan and TIP. A particular action of the type listed in Table 2 of this section is not exempt if the MPO in consultation with other agencies (see subparagraph (5)(C)1.C.), the EPA, and the FHWA (in the case of a highway project) or the FTA (in the case of a transit project) concur that it has potentially adverse emissions impacts for any reason. The state and the MPO must ensure that exempt projects do not interfere with TCM implementation. Table 2 follows:

**Table 2—Exempt Projects**

**Safety**

- Railroad/highway crossing
- Hazard elimination program
- Safer nonfederal-aid system roads
- Shoulder improvements
- Increasing sight distance
- Safety improvement program
- Traffic control devices and operating assistance other than signalization projects
- Railroad/highway crossing warning devices
- Guardrails, median barriers, crash cushions
- Pavement resurfacing or rehabilitation
- Pavement marking demonstration
- Emergency relief (23 U.S.C. 125)
- Fencing
- Skid treatments
- Safety roadside rest areas
- Adding medians
- Truck climbing lanes outside the urbanized area
- Lighting improvements
- Widening narrow pavements or reconstructing bridges (no additional travel lanes)
- Emergency truck pullovers

**Mass Transit**

- Operating assistance to transit agencies
- Purchase of support vehicles
- Rehabilitation of transit vehicles<sup>1</sup>
- Purchase of office, shop, and operating equipment for existing facilities
- Purchase of operating equipment for vehicles (e.g., radios, fare boxes, lifts, etc.)
- Construction or renovation of power, signal, and communications systems
- Construction of small passenger shelters and information kiosks
- Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures)
- Rehabilitation or reconstruction of track structures, track, and trackbed in existing rights-of-way
- Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet<sup>1</sup>

Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR part 771

**Air Quality**

- Continuation of ride-sharing and van-pooling promotion activities at current levels
- Bicycle and pedestrian facilities

**Other**

- Specific activities which do not involve or lead directly to construction, such as—
  - Planning and technical studies
  - Grants for training and research programs
  - Planning activities conducted pursuant to Titles 23 and 49 U.S.C. Federal-aid systems revisions
- Engineering to assess social, economic, and environmental effects of the proposed action or alternatives to that action
- Noise attenuation
- Emergency or hardship advance land acquisitions (23 CFR part 712.204(d))
- Acquisition of scenic easements
- Plantings, landscaping, etc.
- Sign removal
- Directional and informational signs
- Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities)
- Repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational, or capacity changes

<sup>1</sup>Note—In PM<sub>10</sub> nonattainment or maintenance areas, such projects are exempt only if they are in compliance with control measures in the applicable implementation plan.

(24) Projects Exempt From Regional Emissions Analyses. Notwithstanding the other requirements of this rule, highway and transit projects of the types listed in Table 3 of this section are exempt from regional emissions analysis requirements. These projects may then proceed to the project development process even in the absence of a conforming transportation plan and TIP. A particular action of the type listed in Table 3 of this section is not exempt from regional emissions analysis if the MPO in consultation with other agencies (see subparagraph (5)(C)1.C.), the EPA, and the FHWA (in the case of a highway project) or the FTA (in the case of a transit project) concur that it has potential regional impacts for any reason. Table 3 follows:

**Table 3—Projects Exempt from Regional Emissions Analyses**

- Intersection channelization projects
- Intersection signalization projects at individual intersections
- Interchange reconfiguration projects
- Changes in vertical and horizontal alignment
- Truck size and weight inspection stations
- Bus terminals and transfer points

(25) Traffic Signal Synchronization Projects. Traffic signal synchronization projects may be approved, funded, and implemented without satisfying the requirements of this section. However, all subsequent regional emissions analyses required by sections (16) and (17) for transportation plans, TIPs, or projects not from a conforming plan and TIP must include such regionally significant traffic signal synchronization projects.

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