



by ASTM D5954-98(2014)e1 *Standard Test Method for Mercury Sampling and Measurement in Natural Gas by Atomic Absorption Spectroscopy*, as approved and published in 2014, as specified in section (36) of this rule.

(31) The determination of individual volatile sulfur-containing compounds in gaseous fuels shall be determined as specified by ASTM D6228-10 *Standard Practice for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatographs and Flame Photometric Detection*, as approved and published in 2010, as specified in section (36) of this rule.

(32) This test method shall be used to determine the total mercury concentration of a natural gas stream as specified by ASTM D6350-14 *Standard Test Method for Mercury Sampling and Analysis in Natural Gas by Atomic Fluorescence Spectroscopy*, as approved and published in 2010, as specified in section (36) of this rule.

(33) The use of automated vapor pressure instruments to determine the vapor pressure exerted in vacuum by volatile, liquid petroleum products, hydrocarbons, and hydrocarbon-oxygenate mixtures shall be determined as specified by ASTM D6378-10(2016) *Standard Test Method for Determination of Vapor Pressure (VPX) of Petroleum Products, Hydrocarbons, and Hydrocarbon-Oxygenate Mixtures (Triple Expansion Method)*, as approved and published in 2016, as specified in section (36) of this rule.

(34) The determination of elemental, oxidized, particle-bound, and total mercury emissions from coal-fired stationary sources shall be determined as specified by ASTM D6784-16 *Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)*, as approved and published in 2016, as specified in section (36) of this rule.

(35) The determination of the vapor pressure of pure liquids, the vapor pressure exerted by mixtures in a closed vessel at  $40 \pm 5\%$  ullage, and the initial thermal decomposition temperature of pure and mixed liquids shall be determined as specified by ASTM D2879-10 *Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope*, as approved and published in 2010, as specified in section (36) of this rule.

(36) All of the documents in sections (1) through (3) and (7) through (35) of this rule are published by the American Society for Testing and Materials (ASTM) and incorporated by reference in this rule. Copies can be

obtained from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed Aug. 16, 1977, effective Feb. 11, 1978. Amended: Filed Sept. 14, 1978, effective April 12, 1979. Amended: Filed Dec. 10, 1979, effective April 11, 1980. Amended: Filed March 13, 1980, effective Sept. 12, 1980. Amended: Filed Feb. 14, 1984, effective July 12, 1984. Amended: Filed Jan. 5, 1988, effective April 28, 1988. Amended: Filed Oct. 13, 2000, effective July 30, 2001. Amended: Filed July 6, 2005, effective Feb. 28, 2006. Amended: Filed Sept. 24, 2009, effective May 30, 2010. Amended: Filed March 18, 2013, effective Nov. 30, 2013. Amended: Filed March 14, 2014, effective Nov. 30, 2014. Amended: Filed April 13, 2018, effective Jan. 30, 2019.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

**10 CSR 10-6.045 Open Burning Requirements**

*PURPOSE: This rule sets forth the conditions and restrictions for the open burning of refuse and combustible materials throughout Missouri. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, are the various citizen petitions concerning open burning received in 2005 and meeting minutes for 2005/2006 open burning workgroup meetings.*

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

(1) Applicability. This rule applies to all open burning throughout the state of Missouri.

(2) Definitions.

(A) Air curtain incinerator—A device that operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs.

(B) Household waste—Garbage, trash, and other discarded materials that are generated from residential activities in a household.

(C) Open burning—The burning of materials where the products of combustion are emitted into the open air without passing through a chimney or stack.

(D) Salvage Operation—Any business, trade, industry, or other activity conducted in whole or in part for the purpose of salvaging or reclaiming any product or material.

(E) Trade waste—Waste materials from any business, institution, or industry.

(F) Untreated wood—Wood that has not been chemically preserved, painted, stained, or composited. Untreated wood does not include plywood, particleboard, chipboard, and wood with other than minimal quantities of paint, coating, or finish.

(G) Vegetative waste—Tree trunks, tree limbs, tree trimmings, vegetation, and yard waste.

(H) Wood processing facility—A facility that uses logs or dimensional lumber to be cut and used in the manufacturing process.

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

(3) General Provisions. Open burning that causes or constitutes a public health hazard, a hazard to vehicular or air traffic, is composed of material listed in subsection (3)(A) of this rule, or violates any other rule or statute, is not allowed unless specified otherwise. A public health hazard is to be as determined by the local fire department, police department, health department, or other local authorities on a case-by-case basis. The staff director reserves the right to prohibit or restrict open burning where burning is considered detrimental to air quality standards.

(A) The following materials must not be disposed of by open burning:

1. Petroleum-based materials, including but not limited to, tires, asphalt roofing material, carpet, and used oils;
2. Asbestos containing materials;
3. Trade waste, except untreated wood;
4. Construction or demolition waste, except untreated wood;
5. Salvage operation waste;
6. Household waste on or from properties with five (5) or more residential units, such as mobile home parks or multi-family dwellings;
7. Household waste originated from another's property; or
8. Durable goods.

(B) The open burning of vegetative waste for the following activities must comply with the conditions in subsection (3)(E) of this rule:

1. Commercial land clearing operations when the burning is located inside the city limits or less than two hundred (200) yards from the nearest occupied structure; and
2. Commercial and noncommercial collection operations where vegetative waste

originates off-site. Collection operations that burn more than eighty (80) cubic yards of vegetative waste per week must use an Air Curtain Incinerator and—

A. Meet the conditions of subsections (3)(F) and (3)(G) of this rule;

B. Submit a construction notification, record opacity test results, and make records available for review as outlined in section (4) of this rule; and

C. Measure visible emissions as outlined in section (5) of this rule.

(C) Wood processing facilities producing more than eight thousand (8,000) board feet per day or that are located less than one (1) mile outside the city limits of an incorporated area that open burn untreated wood waste must comply with the conditions in subsection (3)(E) of this rule. Wood processing facilities producing more than eight thousand (8,000) board feet per day that wish to burn more than eighty (80) cubic yards of untreated wood waste per week must use an Air Curtain Incinerator and—

1. Meet the conditions of subsections (3)(F) and (3)(G) of this rule;

2. Submit a construction notification, record opacity test results, and make records available for review as outlined in section (4) of this rule; and

3. Measure visible emissions as outlined in section (5) of this rule.

(D) The open burning of untreated wood waste generated from trade waste or construction and demolition waste must comply with the conditions in subsection (3)(E) of this rule. Any person who burns more than eighty (80) cubic yards of this untreated wood waste per week at a single location must use an Air Curtain Incinerator and—

1. Meet the conditions of subsections (3)(F) and (3)(G) of this rule;

2. Submit a construction notification, record opacity test results, and make records available for review as outlined in section (4) of this rule; and

3. Measure visible emissions as outlined in section (5) of this rule.

(E) Conditions for open burning of vegetative waste or untreated wood from activities described in subsections (3)(B), (3)(C), and (3)(D) of this rule:

1. Burning is to take place only between sunrise and sunset;

2. Burning is to occur at least two hundred (200) yards from the nearest structure not owned by the party conducting the burning, unless an Air Curtain Incinerator is used and—

A. Waivers are obtained from the owner or occupant of the structure; or

B. The local fire department provides approval in those circumstances where the distance cannot be maintained;

3. Burning is to be supervised at all times;

4. The local fire control or other authority with jurisdiction shall be notified of the burning activities prior to initiation;

5. An Air Curtain Incinerator shall be utilized in an ozone non-attainment area from April 15 to September 15; and

6. Burning is not allowed during an ozone alert day in an ozone non-attainment area or ozone maintenance area.

(F) Air curtain incinerator operation.

1. An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

2. Owners and operators may only burn the following in their Air Curtain Incinerator:

A. One hundred percent (100%) wood waste;

B. One hundred percent (100%) clean lumber; and

C. One hundred percent (100%) mixture of only wood waste, clean lumber, and/or yard waste.

3. Air curtain incinerator operation must take place at least fifty (50) yards from the nearest occupied structure not owned by the party that owns or operates the air curtain incinerator.

(G) Air curtain incinerators must meet the following emission limitations:

1. Maintain opacity to less than or equal to ten percent (10%) opacity (as determined by the average of three (3) one (1)-hour blocks consisting of ten (10) six (6)-minute average opacity values), except as described in paragraph (3)(G)2. of this rule; and

2. Maintain opacity to less than or equal to thirty five percent (35%) opacity (as determined by the average of three (3) one (1)-hour blocks consisting of ten (10) six (6)-minute average opacity values) during the startup period that is within the first thirty (30) minutes of operation.

(H) The open burning of certain trade wastes, such as explosive or hazardous material, is allowed only when it can be shown that a situation exists where open burning is in the best interest of the general public, or when it can be shown that open burning is the safest and most feasible method of disposal. Economic considerations are not to be the primary determinant of feasibility. Any person intending to engage in open burning of these trade wastes is to contact the Department of Natural Resources and receive written approval from the staff director. The person submitting the information is to verify that the proposed open burning has been approved by the fire control authority which

has jurisdiction.

(I) The open burning of material associated with agricultural or forestry operations related to the growing or harvesting of crops is allowed with the following exception. In an ozone non-attainment area, if open burning for pest or weed control or crop production on existing cropland between April 15 and September 15, the person must notify the staff director in writing at least forty-eight (48) hours prior to commencement of burning. The department reserves the right to delay the burning on days when the ambient ozone level is forecasted to be high.

(4) Reporting and Record Keeping. Owners and operators of Air Curtain Incinerators must—

(A) Prior to commencing construction of a stationary air curtain incinerator, submit a notification to the staff director with the following information:

1. Notification of the intent to construct and operate an air curtain incinerator;

2. The planned initial startup date; and

3. Types of materials that will be burned in the air curtain incinerator;

(B) Keep the notification required in subsection (4)(A) of this rule, and records of results of all initial and annual opacity tests required in section (5) of this rule onsite in either paper copy or electronic format, unless the staff director approves another format, for at least five (5) years;

(C) Make all records available for submittal to the staff director or for an inspector's onsite review; and

(D) Submit the results of the initial opacity test required in section (5) of this rule no later than sixty (60) days following the initial test. Owners and operators must submit the results of the annual opacity test required in section (5) of this rule within sixty (60) days of conducting the test. Submit annual opacity test results within twelve (12) months following the previous report. Copies of the initial and annual reports are to remain onsite for a period of five (5) years. The opacity testing must consist of a minimum of one (1) hour of opacity values, consisting of ten (10) six (6)-minute average opacity values. Paper and electronic submittals are acceptable.

(5) Test Methods. Visible emissions from Air Curtain Incinerators shall be evaluated within sixty (60) days after the air curtain incinerator reaches the charge rate at which it will operate, but no later than one hundred eighty (180) days after its initial startup, and annually thereafter using Method 9 of Appendix A-4 to 40 CFR 60 as specified in 10 CSR 10-6.030(22).

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed June 7, 2007, effective Jan. 30, 2008. Amended: Filed Dec. 29,*