Missouri
Department of
Natural Resources

RECOMMENDATION FOR ADOPTION

PROPOSED REVISION TO

MISSOURI STATE IMPLEMENTATION PLAN – SUPPLEMENT/REVISION TO THE REDESIGNATION DEMONSTRATION AND MAINTENANCE PLAN FOR THE MISSOURI PORTION OF THE ST. LOUIS NONATTAINMENT AREA FOR THE 1997 ANNUAL FINE PARTICULATE MATTER NATIONAL AMBIENT AIR QUALITY STANDARD

On January 30, 2014, the Missouri Air Conservation Commission held a public hearing concerning a revision to the Missouri State Implementation Plan (SIP) for the Supplement/Revision to the Redesignation Demonstration and Maintenance Plan for the Missouri Portion of the St. Louis Nonattainment Area for the 1997 Annual Fine Particulate Matter ($PM_{2.5}$) National Ambient Air Quality Standard (NAAQS). This plan supports a request for the U.S. Environmental Protection Agency (EPA) to redesignate the Missouri portion of the St. Louis nonattainment area to attainment under the 1997 annual $PM_{2.5}$ NAAQS. The maintenance plan establishes motor vehicle emissions budgets for transportation conformity determinations, includes contingency measures to be implemented if the area violates the standard in the future, and addresses all other requirements.

A summary of comments received and the Air Program's corresponding responses is included on the following page. Revisions were made to the proposed plan as a result of comments received.

The revised plan has not been reprinted in the briefing document due to its volume. The entire revised plan is available for review at the Missouri Department of Natural Resources' Air Pollution Control Program, 1659 East Elm Street, Jefferson City, Missouri, 65101, (573)751-4817. It is also available online at http://dnr.mo.gov/env/apcp/stateplanrevisions.htm.

The Air Program recommends the commission adopt the plan as revised. If the commission adopts this plan, it will be the department's intention to submit this plan to EPA for inclusion in the Missouri State Implementation Plan.

COMMENTS AND RESPONSES ON

PROPOSED REVISION TO

**MISSOURI STATE IMPLEMENTATION PLAN –
SUPPLEMENT/REVISION TO THE
REDESIGNATION DEMONSTRATION AND MAINTENANCE PLAN
FOR THE MISSOURI PORTION OF THE ST. LOUIS NONATTAINMENT AREA FOR
THE 1997 ANNUAL FINE PARTICULATE MATTER
NATIONAL AMBIENT AIR QUALITY STANDARD**

The public comment period for the proposed revision to the Missouri State Implementation Plan (SIP) entitled Supplement/Revision to the Redesignation Demonstration and Maintenance Plan for the Missouri Portion of the St. Louis Nonattainment Area for the 1997 Annual Fine Particulate Matter ($PM_{2.5}$) National Ambient Air Quality Standard (NAAQS) opened on December 30, 2013 and closed on February 6, 2014. Revisions to the proposed plan were made as a result of comments.

The following is a summary of comments received and the Missouri Department of Natural Resources' Air Pollution Control Program's (Air Program's) corresponding responses. Any changes to the proposed plan are included in the response to comments.

SUMMARY OF COMMENTS: During the public comment period for the proposed plan, the Air Program received three (3) written comments and one (1) oral comment from the U.S. Environmental Protection Agency (EPA).

COMMENT #1: EPA commented that the Air Program should provide a discussion regarding emission reduction credits held by sources in compliance with state rule *10 CSR 10-6.410 Emissions Banking and Trading*, and how it relates to compliance with the 1997 annual $PM_{2.5}$ NAAQS.

RESPONSE AND EXPLANATION OF CHANGE: State rule *10 CSR 10-6.410 Emissions Banking and Trading*, allows the banking and trading of emission reduction credits to be used for permitting purposes only. Section 5.5 of the plan document was amended to explain how these credits are used for New Source Review (NSR) offset purposes in nonattainment areas and for Prevention of Significant Deterioration (PSD) increment purposes in areas designated attainment. These credits only apply to these specific aspects of obtaining a permit under Missouri's EPA-approved NSR permitting program, and cannot be used to alleviate any source from undergoing a NAAQS impact analysis in any area. Nor can these credits be used to alleviate any source from implementing Best Available Control Technology requirements for PSD permits in attainment areas or Lowest Achievable Emissions Rate and alternative site analysis requirements in nonattainment areas. Therefore, the emission reduction credits that have been banked by Missouri sources are not anticipated to have any impact on Missouri's demonstration that the St. Louis area will continue to maintain the 1997 annual $PM_{2.5}$ NAAQS through the future year in the plan.

COMMENT #2: EPA commented that the Air Program should revise the language used in section 4.2 of the plan document to more accurately portray the history of the Oxides of Nitrogen (NO_X) SIP Call and the federal NO_X Budget Trading Program.

RESPONSE AND EXPLANATION OF CHANGE: The Air Program coordinated with EPA regarding this comment. Narrative revisions were made to section 4.2 of the plan document to more accurately portray the history of the NO_X SIP Call and the NO_X Budget Trading Program as a result of this comment.

COMMENT #3: EPA commented that the Air Program should revise the language used in chapter 6 of the plan document to more clearly explain how the transportation conformity rule applies to the 1997 annual $PM_{2.5}$ NAAQS in the St. Louis area.

RESPONSE AND EXPLANATION OF CHANGE: The Air Program coordinated with EPA regarding this comment and narrative revisions were made to chapter 6 of the plan document as a result of this comment. The revisions to the transportation conformity section of the document more clearly explain how the transportation conformity rule applies to the 1997 annual $PM_{2.5}$ NAAQS in the St. Louis area; however, the transportation conformity budgets proposed in the plan at the public hearing held on January 30, 2014 have not changed since the proposal.

COMMENT #4: During the public hearing, EPA expressed support for the plan and their appreciation to the Air Program for coordinating early in the development of this plan document.

RESPONSE: The Air Program appreciates EPA's support of this plan and the assistance they provided during the development of the plan. No changes to the plan were made as a result of this comment.

Missouri
Department of
Natural Resources

RECOMMENDATION FOR ADOPTION ON

PROPOSED REVISION TO

MISSOURI STATE IMPLEMENTATION PLAN —
AMERICOLD LOGISTICS, LLC
24-HOUR PARTICULATE MATTER (PM_{10})
NATIONAL AMBIENT AIR QUALITY STANDARD (NAAQS)
CONSENT JUDGMENT

As required by Section 110(a) of the Clean Air Act, Missouri's State Implementation Plan (SIP) must ensure attainment and maintenance of all National Ambient Air Quality Standards (NAAQS). The Missouri Department of Natural Resources' Air Pollution Control Program is strengthening the Missouri SIP to address violations of the 24-hour coarse particulate matter (PM_{10}) NAAQS of 150 micrograms per cubic meter ($\mu g/m^3$) near the Americold Logistics' Carthage Crushed Limestone (CCL) facility. The SIP revision consists of a consent judgment with CCL for measures intended to reduce PM_{10} emissions at the facility, all of which are scheduled for installation and operation by March 31, 2014.

A summary of comments received and the Air Program's corresponding responses is included on the following page. Revisions were made to the proposed plan as a result of comments received.

The revised plan has not been reprinted in the briefing document due to its volume. The entire revised plan is available for review at the Missouri Department of Natural Resources' Air Pollution Control Program, 1659 East Elm Street, Jefferson City, Missouri, 65101, (573)751-4817. It is also available online at http://dnr.mo.gov/env/apcp/stateplanrevisions.htm.

The Air Program recommends the commission adopt the plan as revised. If the commission adopts this plan, it will be the department's intention to submit this plan to EPA for inclusion in the Missouri State Implementation Plan.

COMMENTS AND RESPONSES ON

PROPOSED REVISION TO

MISSOURI STATE IMPLEMENTATION PLAN —
AMERICOLD LOGISTICS, LLC
24-HOUR PARTICULATE MATTER (PM_{10})
NATIONAL AMBIENT AIR QUALITY STANDARD (NAAQS)
CONSENT JUDGMENT

The public comment period for the proposed revision to the Missouri State Implementation Plan (SIP) entitled Americold Logistics, LLC 24-Hour Particulate Matter (PM_{10}) National Ambient Air Quality Standard (NAAQS) Consent Judgment opened on December 30, 2013 and closed on February 6, 2014. Revisions to the proposed plan were made as a result of comments.

The following is a summary of comments received and the Missouri Department of Natural Resources' Air Pollution Control Program's (Air Program's) corresponding responses. Any changes to the proposed plan are included in the response to comments.

SUMMARY OF COMMENTS: During the public comment period for the proposed plan, the Air Program received four comments from two sources: one comment from an attorney with Bryan Cave LLP and three comments from the U.S. Environmental Protection Agency (EPA).

COMMENT #1: The attorney with Bryan Cave LLP commented on behalf of Americold Logistics. He suggested revisions to item 2 in the list of required particulate matter control measures in Exhibit A, Compliance Plan, of the consent judgment in order to clarify that the Americold's Carthage Crushed Limestone (CCL) facility has eliminated the use of the Tyler screen.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the Air Program revised item 2 in Exhibit A, Compliance Plan, of the consent judgment as suggested.

COMMENT #2: EPA suggested adding monitoring data dating back to 2004, as well as a discussion about monitoring data trends, to Section II. of the main SIP document.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the Air Program added Figure 1 to illustrate the PM_{10} monitoring data trends dating back to 1999 along with discussion of the trends in the main SIP document.

COMMENT #3: EPA suggested adding to Section IV. of the SIP document a reference to the date that the Air Program originally contacted CCL regarding the most recent violation of the PM_{10} NAAQS.

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the Air Program clarified in Section IV. of the main SIP document when CCL was originally contacted regarding the most recent PM_{10} NAAQS violation.

COMMENT #4: EPA requested clarification on what happens to the contingency measures in the consent judgment if the judgment is terminated per paragraph 20. Specifically, EPA asked if the contingency measures would be incorporated into a permit or SIP.

RESPONSE AND EXPLANATION OF CHANGE: In the event the consent judgment is terminated based on the conditions in paragraph 20, the intention is to incorporate applicable contingency measures into a new consent judgment or permit/permit amendment and submit to EPA for approval into the SIP. The Air Program has added language to the main SIP document to clarify this.

Missouri
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Natural Resources

RECOMMENDATION FOR ADOPTION

PROPOSED REVISION TO

MISSOURI STATE IMPLEMENTATION PLAN – PROPOSED REVISION TO THE LIMITED MAINTENANCE PLAN FOR THE ST. LOUIS NONCLASSIFIABLE MAINTENANCE AREA FOR THE 8-HOUR CARBON MONOXIDE NATIONAL AMBIENT AIR QUALITY STANDARD

On January 30, 2014, the Missouri Air Conservation Commission held a public hearing concerning a revision to the Missouri State Implementation Plan (SIP) for the Proposed Revision to the Limited Maintenance Plan for the St. Louis Nonclassifiable Maintenance Area for the 8-Hour Carbon Monoxide National Ambient Air Quality Standard (CO NAAQS). This second maintenance plan provides for continued attainment of the 8-hour CO NAAQS for the St. Louis area from 2008 through 2018, pursuant to Section 175A(b) of the federal Clean Air Act.

No comments were received during the public comment period.

The proposed plan has not been reprinted in the briefing document due to its volume. The entire proposed plan is available for review at the Missouri Department of Natural Resources' Air Pollution Control Program, 1659 East Elm Street, Jefferson City, Missouri, 65101, (573)751-4817. It is also available online at http://dnr.mo.gov/env/apcp/stateplanrevisions.htm.

The Air Program recommends the commission adopt the plan as proposed. If the commission adopts this plan, it will be the department's intention to submit this plan to the U.S. Environmental Protection Agency for inclusion in the Missouri State Implementation Plan.

COMMENTS AND RESPONSES ON

PROPOSED REVISION TO

MISSOURI STATE IMPLEMENTATION PLAN – PROPOSED REVISION TO THE LIMITED MAINTENANCE PLAN FOR THE ST. LOUIS NONCLASSIFIABLE MAINTENANCE AREA FOR THE 8-HOUR CARBON MONOXIDE NATIONAL AMBIENT AIR QUALITY STANDARD

The public comment period for the proposed revision to the Missouri State Implementation Plan (SIP) for the Limited Maintenance Plan for the St. Louis Nonclassifiable Maintenance Area for the 8-Hour Carbon Monoxide National Ambient Air Quality Standard opened on December 30, 2013 and closed on February 6, 2014. No revisions to the proposed plan were made as a result of comments.

The following is a summary of comments received and the Missouri Department of Natural Resources' Air Pollution Control Program's (Air Program's) corresponding responses.

SUMMARY OF COMMENTS: During the public comment period for the proposed plan, the Air Program received no comments.

Missouri
Department of
Natural Resources

COMMENTS AND RESPONSES ON

PROPOSED AMENDMENT

10 CSR 10-6.200

HOSPITAL, MEDICAL, INFECTIOUS WASTE INCINERATORS

AND

RECOMMENDATION FOR ADOPTION

On January 30, 2014, the Missouri Air Conservation Commission held a public hearing concerning the proposed amendment to 10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators. The following is a summary of comments received and the Missouri Department of Natural Resources' Air Pollution Control Program corresponding responses. Any changes to the proposed amendment are identified in the responses to the comments.

The Missouri Department of Natural Resources' Air Pollution Control Program recommends the commission adopt the rule action as proposed.

NOTE 1 - Legend for rule actions to be voted on is as follows:

* *Shaded Text - Rule sections or subsections unchanged from Public Hearing. This text is only for reference.*
* *Unshaded Text - Rule sections or subsections that are changed from the proposed text presented at the Public Hearing, as a result of comments received during the public comment period.*

NOTE 2 - All unshaded text below this line will be printed in the Missouri Register.

Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 10—Air Conservation Commission

Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo Supp. 2013, the commission amends a rule as follows:

10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on December 2, 2013 (38 MoReg 2008-2019). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received no comments on the proposed amendment.

10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators.

(1) Applicability.

(A) Except as provided in subsection (1)(B) through (H) of this rule, this rule applies to each individual hospital or medical/infectious waste incinerator (HMIWI)—

1. For which construction was commenced after June 20, 1996, but no later than December 1, 2008; or
2. For which modification is commenced after March 16, 1998, but no later than April 6, 2010.

(B) A combustor is not subject to this rule during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned, provided the owner or operator of the combustor—

1. Notifies the director of an exemption claim; and
2. Keeps records on a calendar-quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

(C) Any co-fired combustor is not subject to this rule if the owner or operator of the co-fired combustor—

1. Notifies the director of an exemption claim;
2. Provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and
3. Keeps records on a calendar-quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(D) Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this rule.

(E) Any combustor which meets the applicability requirements under Subpart Cb, Ea, or Eb of 40 CFR 60 is not subject to this rule.

(F) Any pyrolysis unit is not subject to this rule.

(G) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this rule.

(H) Physical or operational changes made to an HMIWI unit solely for the purpose of complying with this rule are not considered a modification and do not result in an HMIWI unit becoming subject to the provisions of 40 CFR 60, Subpart Ec.

(I) Facilities subject to this rule shall operate pursuant to a permit issued under the permitting authorities operating permit program.

(2) Definitions.

(A) Definitions of certain terms specified in this rule may be found in 40 CFR 60.21 and 40 CFR 60.51c, promulgated as of July 1, 2012, and are hereby incorporated by reference in this rule, as published by the Office of Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

(B) 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.

(A) Emission Limits.

1. No owner or operator of an HMIWI subject to this rule shall cause to be discharged into the atmosphere any gases that contain stack emissions in excess of the limits presented in Table 1 of this subsection, except as provided for in paragraph (3)(A)2. of this rule.

Table 1—Emissions Limits for Small, Medium, and Large HMIWI

Pollutant	Units (7 percent oxygen, dry basis)	Emissions limits			Averaging time[1]	Method for demonstrating compliance[2]
		HMIWI size				
		Small	Medium	Large		
Particulate matter	Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf))	66 (0.029)	46 (0.020) or 34 (.015)[3]	25 (0.011)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of 40 CFR 60, Appendix A–3 or EPA Reference Method 26A or 29 of 40 CFR 60, Appendix A–8.
Carbon monoxide	Parts per million by volume (ppmv)	20	5.5	11	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of 40 CFR 60, Appendix A–4.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/10^9dscf)) or ng/dscm TEQ (gr/10^9dscf)	16 (7.0) or 0.013 (0.0057)	0.85 (0.37) or 0.020 (0.0087)	9.3 (4.1) or 0.054 (0.024)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of 40 CFR 60, Appendix A–7.
Hydrogen chloride	ppmv	44 or 15 or 99%[3]	7.7	6.6	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of 40 CFR 60, Appendix A–8.
Sulfur dioxide	ppmv	4.2	4.2	9.0	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of 40 CFR 60, Appendix A–4.
Nitrogen oxides	ppmv	190	190	140	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of 40 CFR 60, Appendix A–4.
Lead	mg/dscm (grains per thousand	0.31	0.018	0.036	3-run average	EPA Reference Method 29

	dry standard cubic feet (gr/10^3dscf))	(0.14)	(0.0079)	(0.016)	(1-hour minimum sample time per run)	of 40 CFR 60, Appendix A–8.
Cadmium	mg/dscm (gr/10^3dscf)	0.017 (0.0074)	0.013 (0.0057)	0.0092 (0.0040)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of 40 CFR 60, Appendix A–8.
Mercury	mg/dscm (gr/10^3dscf)	0.014 (0.0061)	0.025 (0.011)	0.018 (0.0079)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of 40 CFR 60, Appendix A–8.

[1] Except as allowed under section 60.56c(c) for HMIWI equipped with Continuous Emission Monitoring System (CEMS).
[2] Does not include CEMS and approved alternative non-EPA test methods allowed under section 60.56c(b).
[3] HMIWI constructed after June 20, 1996, but no later than December 1, 2008, or for which modification is commenced after March 16, 1998, but no later than April 6, 2010.

2. No owner or operator of a small HMIWI constructed on or before June 20, 1996, which is located more than fifty (50) miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than two thousand (2,000) pounds per week of hospital waste and medical/infectious waste shall cause to be discharged into the atmosphere any gases that contain stack emissions in excess of the limits presented in Table 2 of this paragraph. The two thousand (2,000) pounds per week limitation does not apply during performance tests.

Table 2—Emissions Limits for Small HMIWI Which Meet the Criteria Under Paragraph (3)(A)2. of this Rule

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI Emissions limits	Averaging time[1]	Method for demonstrating compliance[2]
Particulate matter	mg/dscm (gr/dscf)	87 (0.038)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of 40 CFR 60, Appendix A–3 or EPA Reference Method 26A or 29 of 40 CFR 60, Appendix A–8.
Carbon monoxide	ppmv	20	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of 40 CFR 60, Appendix A–4.
Dioxins/furans	ng/dscm total dioxins/furans (gr/10^9dscf) or ng/dscm TEQ (gr/10^9dscf)	240 (100) or 5.1 (2.2)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of 40 CFR 60, Appendix A–7.
Hydrogen chloride	ppmv	810	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of 40 CFR 60, Appendix A–8.
Sulfur dioxide	ppmv	55	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of 40 CFR 60, Appendix A–4.
Nitrogen oxides	ppmv	130	3-run average (1-hour minimum sample	EPA Reference Method 7 or 7E of 40 CFR 60, Appendix A–4.

			time per run)	
Lead	mg/dscm (gr/10^3dscf)	0.50 (0.22)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of 40 CFR 60, Appendix A–8.
Cadmium	mg/dscm (gr/10^3dscf)	0.11 (0.048)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of 40 CFR 60, Appendix A–8.
Mercury	mg/dscm (gr/10^3dscf)	0.0051 (0.0022)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of 40 CFR 60, Appendix A–8.

[1] Except as allowed under section 60.56c(c) for HMIWI equipped with CEMS.
[2] Does not include CEMS and approved alternative non-EPA test methods allowed under section 60.56c(b).

3. No owner or operator of an HMIWI subject to this rule shall cause to be discharged into the atmosphere from the stack of that HMIWI any gases that exhibit greater than six percent (6%) opacity (six (6)-minute block average).

(B) Operator Training and Qualification Requirements.

1. No owner or operator of an HMIWI subject to this rule shall allow the HMIWI to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one (1) hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one (1) or more HMIWI operators.
2. Operator training and qualification shall be obtained by completing the requirements included in paragraphs (3)(B)3. through 7. of this rule.
3. Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:
   A. Twenty-four (24) hours of training on the following subjects:
      (I) Environmental concerns, including pathogen destruction and types of emissions;
      (II) Basic combustion principles, including products of combustion;
      (III) Operation of the type of incinerator to be used by the operator, including proper start-up, waste charging, and shutdown procedures;
      (IV) Combustion controls and monitoring;
      (V) Operation of air pollution control equipment and factors affecting performance (if applicable);
      (VI) Methods to monitor pollutants and equipment calibration procedures (where applicable);
      (VII) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;
      (VIII) Actions to correct malfunctions or conditions that may lead to malfunction;
      (IX) Bottom and fly ash characteristics and handling procedures;
      (X) Applicable federal, state, and local regulations;
      (XI) Work safety procedures;

(XII) Inspections prior to start-up; and
(XIII) Record-keeping requirements;

B. An examination designed and administered by the instructor; and

C. Reference material distributed to the attendees covering the course topics.

4. Qualifications shall be obtained by—

A. Completion of a training course that satisfies the criteria under paragraph (3)(B)3. of this rule; and

B. Either six (6) months experience as an HMIWI operator, six (6) months experience as a direct supervisor of an HMIWI operator, or completion of at least two (2) burn cycles under the observation of two (2) qualified HMIWI operators.

5. Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

6. To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least four (4) hours covering, at a minimum, the following:

A. Update of regulations;

B. Incinerator operation, including start-up and shutdown procedures;

C. Inspection and maintenance;

D. Responses to malfunctions or conditions that may lead to malfunction; and

E. Discussion of operating problems encountered by attendees.

7. A lapsed qualification shall be renewed by one (1) of the following methods:

A. For a lapse of less than three (3) years, the HMIWI operator shall complete and pass a standard annual refresher course described in paragraph (3)(B)6. of this rule; or

B. For a lapse of three (3) years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in paragraph (3)(B)3. of this rule.

8. The owner or operator of an HMIWI shall maintain documentation at the facility that addresses the following:

A. Summary of the applicable standards under this subpart;

B. Description of basic combustion theory applicable to an HMIWI;

C. Procedures for receiving, handling, and charging waste;

D. HMIWI start-up, shutdown, and malfunction procedures;

E. Procedures for maintaining proper combustion air supply levels;

F. Procedures for operating the HMIWI and associated air pollution control systems within the standards established under this subpart;

G. Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

H. Procedures for monitoring HMIWI emissions;

I. Reporting and record-keeping procedures; and

J. Procedures for handling ash.

9. The owner or operator of an HMIWI shall establish a program for

reviewing the information listed in paragraph (3)(B)8. of this rule annually with each HMIWI operator.

A. The initial review of the information listed in paragraph (3)(B)8. of this rule shall be conducted prior to assumption of responsibilities affecting HMIWI operation.

B. Subsequent reviews of the information listed in paragraph (3)(B)8. of this rule shall be conducted annually.

10. The information listed in paragraph (3)(B)8. of this rule shall be kept in a readily-accessible location for all HMIWI operators. This information, along with records of training, shall be available for inspection by the department or its delegated enforcement agent upon request.

(C) Waste Management Plan. The owner or operator of an HMIWI shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as segregation and recycling of paper, cardboard, plastics, glass, batteries, food waste, and metals (e.g., aluminum cans, metals-containing devices); segregation of non-recyclable wastes (e.g., polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste, such as dental waste); and purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The development of the waste management plan shall consider the publication entitled *An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities* (Catalog No. 057007), copyright year 1993, and hereby incorporated by reference in this rule, as published by the American Hospital Association Services, Inc., PO Box 92683, Chicago, IL 60675-2683. This rule does not incorporate any subsequent amendments or additions to this publication. The owner or operator of each commercial HMIWI company shall conduct training and education programs in waste segregation for each of the company's waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed previously in this subsection.

(D) Inspection Guidelines.

1. Each HMIWI subject to the emission limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule shall undergo an initial equipment inspection that is at least as protective as the following:

A. At a minimum, an inspection shall include the following:

(I) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation, and clean pilot flame sensor,

as necessary;

(II) Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

(III) Inspect hinges and door latches and lube as necessary;

(IV) Inspect dampers, fans, and blowers for proper operation;

(V) Inspect HMIWI door and door gaskets for proper sealing;

(VI) Inspect motors for proper operation;

(VII) Inspect primary chamber refractory lining and clean and repair/replace as necessary;

(VIII) Inspect incinerator shell for corrosion and/or hot spots;

(IX) Inspect secondary/tertiary chamber and stack; clean as necessary;

(X) Inspect mechanical loader, including limit switches, for proper operation, if applicable;

(XI) Visually inspect waste bed (grates) and repair/seal, as necessary;

(XII) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;

(XIII) Inspect air pollution control devices for proper operation, if applicable;

(XIV) Inspect waste heat boiler systems to ensure proper operation, if applicable;

(XV) Inspect bypass stack components;

(XVI) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(XVII) Generally observe that the equipment is maintained in good operating condition; and

B. Within ten (10) operating days following an equipment inspection all necessary repairs shall be completed unless the owner or operator obtains written approval from the department or local air pollution control authority establishing a date whereby all necessary repairs of the designated facility shall be completed.

2. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule shall undergo an equipment inspection annually (no more than twelve (12) months following the previous annual equipment inspection), as outlined in paragraph (3)(D)1. of this rule.

3. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule shall undergo an initial air pollution control device inspection, as applicable, that is at least as protective as the following:

A. At a minimum, an inspection shall include the following:

(I) Inspect air pollution control device(s) for proper operation, if applicable;

(II) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(III) Generally observe that the equipment is maintained in good operating condition; and

B. Within ten (10) operating days following an air pollution control device inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Missouri Department of Natural Resources' Air Pollution Control Program establishing a date whereby all necessary repairs of the designated facility shall be completed.

4. Each HMIWI subject to the emissions limits under paragraph (3)(A)1. of this rule and each small HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule shall undergo an air pollution control device inspection, as applicable, annually (no more than twelve (12) months following the previous annual air pollution control device inspection), as outlined in paragraph (3)(D)3. of this rule.

(E) Compliance and Performance Testing.

1. The emission limits under this rule apply at all times.

2. Except as provided in paragraph (3)(E)12. of this rule, the owner or operator of an HMIWI subject to this rule shall conduct an initial performance test to determine compliance with the emission limits using the procedures and test methods listed in subparagraphs (3)(E)2.A. through L. of this rule. The use of the bypass stack during a performance test shall invalidate the performance test. For small HMIWIs as defined in paragraph (3)(A)2. of this rule, the two-thousand (2,000)-pound-per-week limitation does not apply during performance tests.

A. All performance tests shall consist of a minimum of three (3) test runs conducted under representative operating conditions.

B. The minimum sample time shall be one (1) hour per test run unless otherwise indicated.

C. The sampling location and number of traverse points shall be determined using EPA Reference Method 1 of 40 CFR 60, Appendix A–1.

D. Gas composition shall be analyzed and include a measurement of oxygen concentration using EPA Reference Method 3, 3A, or 3B of 40 CFR 60, Appendix A–2. EPA Reference Method 3, 3A, or 3B shall be used simultaneously with each of the other EPA reference methods. As an alternative to EPA Reference Method 3B, ASME PTC-19-10-1981-Part 10 may be used.

E. The pollutant concentrations shall be adjusted to seven percent (7%) oxygen using the following equation:

$$C_{adj} = C_{meas} (20.9 - 7) / (20.9 - \% O_2)$$

where:
C_{adj} = pollutant concentration adjusted to 7 percent oxygen
C_{mea} = pollutant concentration measured on a dry basis

(20.9 – 7) = 20.9 percent oxygen – 7 percent oxygen (defined oxygen correction basis)
20.9 = oxygen concentration in air, percent
% O_2 = oxygen concentration measured on a dry basis, percent

F. Particulate Matter (PM) emissions shall be measured using EPA Reference Method 5 of 40 CFR 60, Appendix A–3. An acceptable alternate method for measuring PM emissions is EPA Reference Method 26A or Method 29 of 40 CFR 60, Appendix A–8. As an alternative, PM Continuous Emission Monitoring System (CEMS) may also be used as specified in subparagraph (3)(E)3.C. of this rule.

G. Stack opacity shall be measured using EPA Reference Method 9 of 40 CFR 60, Appendix A–4. As an alternative, demonstration of compliance with the PM standards using bag leak detection systems as specified in paragraph (3)(E)11. of this rule or PM CEMS as specified in subparagraph (3)(E)3.C. of this rule is considered demonstrative of compliance with the opacity requirements.

H. Carbon monoxide (CO) emissions shall be measured using EPA Reference Method 10 or 10B of 40 CFR 60, Appendix A–4. As an alternative, CO CEMS may be used as specified in subparagraph (3)(E)3.C. of this rule.

I. Total dioxin/furan emissions shall be measured using EPA Reference Method 23 of 40 CFR 60, Appendix A–7. As an alternative, an owner or operator may elect to sample dioxins/furans by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions. Sampling shall be done using EPA Reference Method 23 of 40 CFR 60, Appendix A–7. The minimum sample time shall be four (4) hours per test run. If the affected facility has selected the toxic equivalency standards for dioxin/furans the following procedures shall be used to determine compliance:

(I) Measure the concentration of each dioxin/furan tetra- through octa-congener emitted using EPA Reference Method 23 of 40 CFR 60, Appendix A–7;

(II) For each dioxin/furan congener measured in accordance with part (3)(E)2.I.(I) of this rule, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 3 of this part; and

Table 3—Toxic Equivalency Factors

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1

1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.001

(III) Sum the products calculated in accordance with part (3)(E)2.I.(II) of this rule to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

J. Hydrogen chloride (HCl) shall be measured using EPA Reference Method 26 or 26A of 40 CFR 60, Appendix A–8. As an alternative, HCl CEMS may be used as specified in subparagraph (3)(E)3.C. of this rule.

K. Lead (Pb), cadmium (Cd), and mercury (Hg) emissions shall be measured using EPA Reference Method 29 of 40 CFR 60, Appendix A–8. As an alternative, Hg emissions may be measured using ASTM D6784–02(2008). As an alternative for Pb, Cd, and Hg, multi-metals CEMS or Hg CEMS, may be used as specified in subparagraph (3)(E)3.C. of this rule. As an alternative, an owner or operator may elect to sample Hg by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring Hg emissions.

L. Compliance for fugitive ash emissions shall be determined using EPA Reference Method 22 of 40 CFR 60, Appendix A–7. The minimum observation time shall be a series of three (3) one (1)-

hour observations.

3. Following the date on which the initial performance test is completed, the owner or operator of an affected facility shall—
   A. Determine compliance with the opacity limit by conducting an annual performance test (no more than twelve (12) months following the previous performance test) using the applicable procedures and test methods listed in paragraph (3)(E)2. of this rule;
   B. Determine compliance with the PM, CO, and HCl emission limits by conducting an annual performance test (no more than twelve (12) months following the previous performance test) using the applicable procedures and test methods listed in paragraph (3)(E)2. of this rule. If all three (3) performance tests over a three (3)-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two (2) years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than thirty-six (36) months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional two (2) years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three (3)-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test; and
   C. Facilities using a Continuous Emission Monitoring System (CEMS) to demonstrate compliance with any of the emission limits under section (3) of this rule shall determine compliance with the appropriate emission limit(s) using a twelve (12)-hour rolling average, calculated each hour as the average of the previous twelve (12) operating hours.
4. The owner or operator of an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and wet scrubber shall—
   A. Establish the appropriate maximum and minimum operating parameters, indicated in Table 4 of this subparagraph for each control system, as site-specific operating parameters during the initial performance test to determine compliance with the emission limits; and

Table 4—Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies

Operating parameters to be	Minimum frequency	Control system

monitored	Data measurement	Data recording	Dry scrubber followed by fabric filter	Wet scrubber	Dry scrubber followed by fabric filter and wet scrubber
MAXIMUM OPERATING PARAMETERS					
Maximum charge rate	Continuous	1 per hour	✓	✓	✓
Maximum fabric filter inlet temperature	Continuous	1 per minute	✓		✓
Maximum flue gas temperature	Continuous	1 per minute		✓	✓
MIMIMUM OPERATING PARAMETERS					
Minimum secondary chamber temperature	continuous	1 per minute	✓	✓	✓
Minimum dioxin/furan sorbent flow rate	hourly	1 per hour	✓		✓
Minimum hydrogen chloride (HCl) sorbent flow rate	hourly	1 per hour	✓		✓
Minimum mercury (Hg) sorbent flow rate	hourly	1 per hour	✓		✓
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	continuous	1 per minute		✓	✓
Minimum scrubber liquor flow rate	continuous	1 per minute		✓	✓
Minimum scrubber liquor pH	continuous	1 per minute		✓	✓

B. Following the date on which the initial performance test is completed, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 4 and measured as three (3)-hour rolling averages (calculated each hour as the average of the previous three (3) operating hours) at all times. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the

established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

5. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a dry scrubber followed by a fabric filter—
   A. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the CO emission limit;
   B. Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;
   C. Operation of the affected facility above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;
   D. Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or
   E. Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.
6. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a wet scrubber—
   A. Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the PM emission limit;
   B. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the CO emission limit;
   C. Operation of the affected facility above the maximum charge rate, below the minimum secondary temperature, and below the minimum scrubber liquor flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;
   D. Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;
   E. Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute

a violation of the Hg emission limit; or

F. Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

7. Except as provided in paragraph (3)(E)8. of this rule, for affected facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber—

A. Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the CO emission limit;

B. Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit;

C. Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit;

D. Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit; or

E. Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

8. The owner or operator of an affected facility may conduct a repeat performance test within thirty (30) days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under paragraphs (3)(E)5., 6., or 7. of this rule.

9. The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber, or selective noncatalytic reduction technology, to comply with the emission limits under section (3) of this rule shall petition the administrator for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the administrator.

10. The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The department may request a repeat performance test at any time.

11. The owner or operator of an affected facility that uses an air pollution

control device that includes a fabric filter and is not demonstrating compliance using PM CEMS, determines compliance with the PM emissions limit using a bag leak detection system, and meets the requirements in subparagraphs (3)(E)11.A. through L. of this rule for each bag leak detection system.

A. Each triboelectric bag leak detection system may be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance" (EPA–454/R–98–015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA), Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Measurement Policy Group (D–243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emissions Measurement Center Continuous Emissions Monitoring. Other types of bag leak detection systems shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

B. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

C. The bag leak detection system sensor shall provide an output of relative PM loadings.

D. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

E. The bag leak detection system shall be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

F. For positive pressure fabric filter systems, a bag leak detector shall be installed in each baghouse compartment or cell.

G. For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter.

H. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

I. The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance."

J. Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted. In no case may the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three-hundred-sixty-five (365)-day period unless

such adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. Each adjustment shall be recorded.

K. Record the results of each inspection, calibration, and validation check.

L. Initiate corrective action within one (1) hour of a bag leak detection system alarm; operate and maintain the fabric filter such that the alarm is not engaged for more than five percent (5%) of the total operating time in a six (6)-month block reporting period. If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of one (1) hour. If it takes longer than one (1) hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

12. Small HMIWI subject to the emissions limits under paragraph (3)(A)2. of this rule that is not equipped with an air pollution control device shall meet the following compliance and performance testing requirements:

A. Establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits;

B. Following the date on which the initial performance test is completed, ensure that the designated facility does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as three (3)-hour rolling averages (calculated as the average of the previous three (3) operating hours) at all times. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s);

C. Except as provided in subparagraph (3)(E)12.D. of this rule, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three (3)-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits; and

D. The owner or operator of a designated facility may conduct a repeat performance test within thirty (30) days of the violation of applicable operating parameter(s) to demonstrate that the designated facility is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph must be conducted using the identical operating parameters that indicated a violation under subparagraph (3)(E)12.C. of this rule.

13. The owner or operator of a designated facility subject to this rule may use

the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the following conditions are met:

A. The designated facility's previous emissions tests must have been conducted using the applicable procedures and test methods listed in subparagraphs (3)(E)2.A.–L. of this rule. Previous emissions test results obtained using EPA-accepted voluntary consensus standards are also acceptable;

B. The HMIWI at the designated facility shall currently be operated in a manner (e.g., with charge rate, secondary chamber temperature, etc.) that would be expected to result in the same or lower emissions than observed during the previous emissions test(s), and the HMIWI may not have been modified such that emissions would be expected to exceed (notwithstanding normal test-to-test variability) the results from previous emissions test(s); and

C. The previous emissions test(s) must have been conducted in 1996 or later.

(F) Monitoring Requirements.

1. Except as provided for under paragraph (3)(F)5. of this rule, the owner or operator of an HMIWI subject to this rule shall install, calibrate (to manufacturers' specification), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 4 of this rule (unless CEMS are used as a substitute for certain parameters as specified) such that these devices (or methods) measure and record values for these operating parameters at the frequency indicated in Table 4 of this rule at all times.

2. The owner or operator of an HMIWI shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

3. The owner or operator of an HMIWI using something other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under section (3) of this rule shall install, calibrate (to manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to paragraph (3)(E)9. of this rule.

4. The owner or operator of an HMIWI shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for seventy-five percent (75%) of the operating hours per day for ninety percent (90%) of the operating days per calendar quarter that the HMIWI is combusting hospital waste and/or medical/infectious waste.

5. Small HMIWI subject to the emission limits under paragraph (3)(A)2. of this rule not equipped with an air pollution control device shall meet the following monitoring requirements:

A. Install, calibrate (to manufacturers' specification), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation;

B. Install, calibrate (to manufacturers' specification), maintain, and operate a device that automatically measures and records the date, time, and weight of each charge fed into the HMIWI; and

C. The owner or operator of a designated facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for seventy-five percent (75%) of the operating hours per day for ninety percent (90%) of the operating days per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

(4) Reporting and Record Keeping.

(A) The owner or operator of an HMIWI subject to this rule shall maintain the following information (as applicable) for a period of at least five (5) years:

1. Calendar date of each record;
2. Records of the following data:
   A. Concentrations of any pollutant listed in section (3) of this rule or measurements of opacity as determined by the continuous emission monitoring system (if applicable);
   B. Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;
   C. HMIWI charge dates, times, and weights and hourly charge rates;
   D. Fabric filter inlet temperatures during each minute of operation, as applicable;
   E. Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;
   F. Amount and type of Hg sorbent used during each hour of operation, as applicable;
   G. Amount and type of HCl sorbent used during each hour of operation, as applicable;
   H. Amount and type of nitrogen oxides (NO_x) reagent used during each hour of operation, as applicable;
   I. Secondary chamber temperatures recorded during each minute of operation;
   J. Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;
   K. Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;
   L. Pressure drop across the wet scrubber system during each minute of operation, as applicable;

M. Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

N. pH of the scrubber liquor at the inlet to the wet scrubber during each minute of operation, as applicable;

O. Records indicating use of the bypass stack, including dates, times, and durations;

P. For HMIWI complying with paragraph (3)(E)9. and paragraph (3)(F)3. of this rule, the owner or operator shall maintain all operating parameter data collected; and

Q. For affected facilities as defined in this rule, records of the annual equipment inspections, annual air pollution control device inspections, any required maintenance, and any repairs not completed within ten (10) days of an inspection or the time frame established by the director;

3. Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (4)(A)2. of this rule have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken;

4. Identification of calendar days, times, and durations of malfunctions, a description of the malfunction, and the corrective action taken;

5. Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (4)(A)2. of this rule exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken;

6. The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating parameters, as applicable, and a description, including sample calculations, of how the operating parameters were established or re-established, if applicable;

7. Records showing the names of HMIWI operators who have completed review of the information in paragraph (3)(B)8. of this rule as required by paragraph (3)(B)9. of this rule, including the date of the initial review and all subsequent annual reviews;

8. Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

9. Records showing the names of the HMIWI operators who have met the criteria for qualification under subsection (3)(B) of this rule and the dates of their qualification; and

10. Records of calibration of any monitoring devices as required under paragraphs (3)(F)1. through 5. of this rule.

(B) The owner or operator of an HMIWI shall submit to the department the information specified in paragraphs (4)(B)1. through 3. of this rule no later than sixty (60) days following the initial performance test. All reports shall be signed

by the facilities manager.

1. The initial performance test data as recorded under subparagraphs (3)(E)2.A. through L. of this rule, as applicable.
2. The values for the site-specific operating parameters established pursuant to paragraph (3)(E)4. or 9. of this rule, as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test.
3. The waste management plan as specified in subsection (3)(C) of this rule.

(C) An annual report shall be submitted to the department one (1) year following the submission of the information in subsection (4)(B) of this rule and subsequent reports shall be submitted no more than twelve (12) months following the previous report (once the unit is subject to permitting requirements under Title V of the Clean Air Act, the owner or operator of an affected facility must submit these reports semiannually). The annual report shall include the information specified in paragraphs (4)(C)1. through 8. of this rule. All reports shall be signed by the facilities manager.

1. The values for the site-specific operating parameters established pursuant to paragraph (3)(E)4., 8., or 9. of this rule, as applicable.
2. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to paragraph (3)(E)4., 8., or 9. of this rule, as applicable.
3. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to paragraph (3)(E)4., 8., or 9. of this rule for the calendar year preceding the year being reported, in order to provide the department with a summary of the performance of the affected facility over a two (2)-year period.
4. Any information recorded under paragraphs (4)(A)3. through 5. of this rule for the calendar year being reported.
5. Any information recorded under paragraphs (4)(A)3. through 5. of this rule for the calendar year preceding the year being reported, in order to provide the department with a summary of the performance of the affected facility over a two (2)-year period.
6. If a performance test was conducted during the reporting period, the results of that test.
7. If no exceedances or malfunctions were reported under paragraphs (4)(A)3. through 5. of this rule for the calendar year being reported, a statement that no exceedances occurred during the reporting period.
8. Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

(D) The owner or operator of an HMIWI shall submit to the department semiannual reports containing any information recorded under paragraphs (4)(A)3. through 5. of this rule no later than sixty (60) days following the reporting period. The first semiannual reporting period ends six (6) months following the submission of information in subsection (4)(B) of this rule. Subsequent reports shall be submitted to the department no later than six (6) calendar months following the previous report. All reports shall be signed by the facilities manager.

(E) All records specified under subsection (4)(A) of this rule shall be maintained on-site in either paper copy or computer-readable format, unless an alternative format is approved by the department.

(F) The owner or operator of an HMIWI shall submit an annual report to the department containing information recorded under subparagraph (4)(A)2.Q. of this rule no later than sixty (60) days following the year in which data were collected. Subsequent reports shall be sent no later than twelve (12) calendar months following the previous report (once the unit is subject to permitting requirements under Title V of the Clean Air Act, the owner or operator must submit these reports semiannually). The report shall be signed by the facilities manager.

(5) Test Methods. Test methods can be found in subparagraphs (3)(E)2.A. through L. of this rule

Missouri Department of Natural Resources

COMMENTS AND RESPONSES ON

PROPOSED RESCISSION OF

10 CSR 10-5.240

ADDITIONAL AIR QUALITY CONTROL MEASURES MAY BE REQUIRED WHEN SOURCES ARE CLUSTERED IN A SMALL LAND AREA

AND

RECOMMENDATION FOR RESCISSION

On January 30, 2013, the Missouri Air Conservation Commission held a public hearing concerning the proposed rescission of rule 10 CSR 10-5.240 Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area. The following is a summary of comments received and the Missouri Department of Natural Resources' Air Pollution Control Program corresponding responses. Any changes to the proposed rescission are identified in the responses to the comments.

The Missouri Department of Natural Resources' Air Pollution Control Program recommends the commission rescind this rule as proposed.

NOTE 1 - Legend for rule actions to be voted on is as follows:

* *Shaded Text - Rule sections or subsections unchanged from Public Hearing. This text is only for reference.*
* *Unshaded Text - Rule sections or subsections that are changed from the proposed text presented at the Public Hearing, as a result of comments received during the public comment period.*

NOTE 2 - All unshaded text below this line will be printed in the Missouri Register.

Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 10—Air Conservation Commission

Chapter 5—Air Quality Standards and Air Pollution Control Rules Specific to the St. Louis Metropolitan Area

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo Supp. 2013, the commission rescinds a rule as follows:

10 CSR 10-5.240 Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area **is rescinded**.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on November 15, 2013 (38 MoReg 1877). No changes have been made in the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received no comments on the proposed rescission.

10 CSR 10-5.240 Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area

(1) Areas to Which This Regulation Applies.

(A) This regulation shall apply to areas in which there are one (1) or more existing sources and/or proposed new sources of particulate matter in any circular area with a diameter of two (2) miles (including sources outside metropolitan area) from which the sum of particulate emissions allowed from these sources by regulations of general application are or would be greater than two thousand (2000) tons per year or five hundred (500) pounds per hour.

(B) This regulation shall apply in areas in which there are one (1) or more existing sources and/or proposed new sources of sulfur dioxide in any circular area with a diameter of two (2) miles from which the sum of sulfur dioxide emissions from these sources allowed by regulations of general application are or would be greater than one thousand (1000) tons for any consecutive three (3) months or one thousand (1000) pounds per hour.

(2) Air Conservation Commission May Prescribe More Restrictive Air Quality Control Measures. In areas where this regulation applies, as specified in section (1), the Air Conservation Commission may prescribe air quality control requirements that are more restrictive and more extensive than provided in regulations of general application.

Missouri
Department of
Natural Resources

COMMENTS AND RESPONSES ON

PROPOSED AMENDMENT

10 CSR 10-6.010

AMBIENT AIR QULAITY STANDARDS

AND

RECOMMENDATION FOR ADOPTION

On January 30, 2014, the Missouri Air Conservation Commission held a public hearing concerning the proposed amendment to 10 CSR 10-6.010 Ambient Air Quality Standards. The following is a summary of comments received and the Missouri Department of Natural Resources' Air Pollution Control Program corresponding responses. Any changes to the proposed amendment are identified in the responses to the comments.

The Missouri Department of Natural Resources' Air Pollution Control Program recommends the commission adopt the rule action as revised.

NOTE 1 - Legend for rule actions to be voted on is as follows:

* *Shaded Text - Rule sections or subsections unchanged from Public Hearing. This text is only for reference.*
* *Unshaded Text - Rule sections or subsections that are changed from the proposed text presented at the Public Hearing, as a result of comments received during the public comment period.*

NOTE 2 - All unshaded text below this line will be printed in the Missouri Register.

Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 10—Air Conservation Commission

Chapter 6 - Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo Supp. 2013, the commission amends a rule as follows:

10 CSR 10-6.010 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on December 16, 2013 (38 MoReg 2089-2092). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received three (3) comments from the U.S. Environmental Protection Agency (EPA) on this rule amendment.

COMMENT #1: The EPA suggested revised language for the footnote regarding the 1997 ozone standard in the ambient air quality standards table, rather than referencing the implementation of the standard.
RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the footnote language was revised as suggested.

COMMENT #2: The EPA suggested revised language for the footnote regarding the 1997 particulate matter $PM_{2.5}$ standard in the ambient air quality standards table.
RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the footnote language was revised as suggested.

COMMENT #3: The EPA suggested revised language for the footnote regarding the 1971 annual and 24-hour sulfur dioxide standard in the ambient air quality standards table.
RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the footnote language was revised as suggested.

10 CSR 10-6.010 Ambient Air Quality Standards

PURPOSE: This rule is a compilation of standards for ambient air quality throughout Missouri in order to protect the public health and welfare. The U.S. Environmental Protection Agency has set National Ambient Air Quality Standards (NAAQS) for six (6) criteria pollutants (carbon monoxide, lead, nitrogen dioxide, ozone, particle pollution, and sulfur dioxide). Primary NAAQS provide public health protection and secondary NAAQS provide public welfare protection. In addition, Missouri has set standards for hydrogen sulfide and sulfuric acid.

Pollutant		Primary/Secondary Standard	Averaging Time	Level	Form	Reference Method
Carbon monoxide		Primary	8-hour	9 parts per million	Not to be exceeded more than once per year	As specified in 10 CSR 10-6.040(4)(C)
			1-hour	35 parts per million		
Lead (2008)		Primary and secondary	Rolling 3-month average	0.15 micrograms per cubic meter	Not to be exceeded (see 10 CSR 10-6.040(4)(O))	As specified in 10 CSR 10-6.040(4)(G)
Lead (1978)*		Primary	Calendar quarter mean	1.5 micrograms per cubic meter	Not to be exceeded	As specified in 10 CSR 10-6.040(4)(G)
Nitrogen dioxide		Primary	1-hour	100 parts per billion	98th percentile, averaged over 3 years	As specified in 10 CSR 10-6.040(4)(F)
		Primary and secondary	Annual	0.053 parts per million, equal to 53 parts per billion	Annual mean	
Ozone (2008)		Primary and secondary	8-hour	0.075 parts per million	Annual fourth-highest daily maximum 8-hour, averaged over 3 years (see 10 CSR 10-6.040(4)(N))	As specified in 10 CSR 10-6.040(4)(D)
Ozone (1997)**		Primary	8-hour	0.08 parts per million	Annual fourth-highest daily maximum 8-hour, averaged over 3 years (see 10 CSR 10-6.040(4)(I))	As specified in 10 CSR 10-6.040(4)(D)
Particle pollution (2012)	Particulate matter 2.5 micron ($PM_{2.5}$)	Primary	Annual	12 micrograms per cubic meter	Annual mean, averaged over 3 years	As specified in 10 CSR 10-6.040(4)(L)
		Secondary	Annual	15 micrograms per cubic meter	Annual mean, averaged over 3 years	
		Primary and secondary	24-hour	35 micrograms per cubic meter	98th percentile, averaged over 3 years (see 10 CSR 10-6.040(4)(M))	
	Particulate matter 10 micron (PM_{10})	Primary and secondary	24-hour	150 micrograms per cubic meter	Not to be exceeded more than once per year on average over 3 years (see 10 CSR 10-6.040(4)(K))	As specified in 10 CSR 10-6.040(4)(J)
Particulate matter 2.5 micron ($PM_{2.5}$) (1997)***		Primary	Annual	15 micrograms per cubic meter	Annual mean, averaged over 3 years	As specified in 10 CSR 10-6.040(4)(L)
Sulfur dioxide (2010)		Primary	1-hour	75 parts per billion	99th percentile of 1-hour daily maximum, averaged over 3 years	As specified in 10 CSR 10-6.040(A)
		Secondary	3-hour	0.5 parts per million, equal to 500 parts per billion	Not to be exceeded more than once per year	
Sulfur dioxide (1971)****		Primary	Annual	0.03 parts per million	Annual mean	As specified in 10 CSR 10-6.040(A)
		Primary	24-hour	0.14 parts per million	Not to be exceeded more than once per year	
Hydrogen sulfide		State only	1/2-hour	0.03 parts per million (42 micrograms per cubic meter)	Not to be exceeded over 2 times in any 5 consecutive days	As specified in 10 CSR 10-6.040(5)

		1/2-hour	0.05 parts per million (70 micrograms per cubic meter)	Not to be exceeded over 2 times per year	As specified in 10 CSR 10-6.040(5)
Sulfuric acid	State only	1-hour	30 micrograms per cubic meter	Not to be exceeded more than once in any 2 consecutive days	As specified in 10 CSR 10-6.040(6)
		24-hour	10 micrograms per cubic meter	Not to be exceeded more than once in any 90 consecutive days	As specified in 10 CSR 10-6.040(6)

*The 1978 lead standard remains in effect until one (1) year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

**The 1997 ozone standard remains in effect.

***The 1997 particulate matter 2.5 micron ($PM_{2.5}$) standard remains in effect.

****The 1971 annual and 24-hour sulfur dioxide standards remain in effect in areas until one (1) year after the area is designated for the 2010 standard, except that for areas designated nonattainment for the 1971 standards as of August 23, 2010, and for areas not meeting the requirements of a SIP call under the 1971 standards, the 1971 standards remain in effect until the area submits and the EPA approves a SIP providing for attainment of the 2010 standard.