State of Maryland
0.075 ppm 8-Hour Ozone
Nitrogen Oxide
Reasonably Available Control Technology (NOx RACT)
State Implementation Plan

SIP Number: 18-04

July 2, 2018

Prepared for:

U.S. Environmental Protection Agency

Prepared by:

Maryland Department of the Environment
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1.0 INTRODUCTION

On March 12, 2008, the United States Environmental Protection Agency (EPA) announced its revisions to the National Ambient Air Quality Standards (NAAQS) for ozone. This action revised the primary and secondary standards to a level of 0.075 parts per million (ppm) over an 8-hour period. The EPA’s final rule Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements set out the requirements for Reasonable Available Control Technology (RACT) State Implementation Plans.

This document consists of Maryland’s State Implementation Plan (SIP) Revision developed for the purpose of meeting the RACT requirements set forth by the Clean Air Act (CAA), as the requirements apply to the 0.075 ppm 8-hour ozone National Ambient Air Quality Standard (NAAQS). This document is hereafter referred to as “Maryland’s 8-hour Ozone NOx RACT SIP”, or simply as “the NOx RACT SIP.” This document is a revised and updated version of the RACT SIP that Maryland submitted in 2011, in response to the 1997 0.080 ppm 8-hr ozone standard.

Background and requirements

Ground level ozone, one of the principal components of “smog,” is a serious air pollutant that harms human health and the environment. High levels of ozone can damage the respiratory system and cause breathing problems, throat irritation, coughing, chest pains, and greater susceptibility to respiratory infection. High levels of ozone also cause serious damage to forests and agricultural crops, resulting in economic losses to logging and farming operations.

Ozone is generally not directly emitted to the atmosphere; rather it is formed in the atmosphere by photochemical reactions between volatile organic compounds (VOC) and oxides of nitrogen (NOx) in the presence of sunlight. Consequently, in order to reduce ozone concentrations in the ambient air, the CAA requires all nonattainment areas to apply controls on VOC/NOx emission sources to achieve emission reductions. This SIP discusses the controls applied to NOx emissions sources.

Maryland’s Ozone Designation

On May 21, 2012, EPA designated three areas in Maryland as “nonattainment” under the 8-hour ozone NAAQS. These nonattainment areas are; the Baltimore Nonattainment Area (classified as Moderate), the Washington D.C. Nonattainment Area (Marginal), and the Philadelphia Nonattainment Area (Marginal). All other remaining Maryland counties are part of the Ozone Transport Region (OTR). Please reference Figure 1 below.

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1 73 FR 16436; published March 27, 2008; effective May 27, 2008
2 80 FR 12264, published March 6, 2015; effective April 6, 2015.
CAA RACT Requirements

The U.S. Environmental Protection Agency (EPA) has defined RACT as “the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility”\(^5\). Section 182(b)(2) of the CAA, applies RACT to VOC sources in moderate or worse ozone nonattainment areas around the country. Under CAA Section 184(b)(1)(B), requirements comparable to those established under Section 182(b)(2) are applicable to all areas in ozone transport regions. Under CAA Section 184(b)(2) any stationary source with a potential to emit at least 50 tons per year of VOCs is subject to RACT under CAA Section 182(b)(2)(C) if located in the following portions of ozone transport regions: those designated attainment; or, designated nonattainment and classified as either marginal or moderate nonattainment.\(^6\) Under Section 182(f), the CAA establishes that Subpart 2 requirements applicable to major stationary sources of VOCs are also applicable to major stationary sources of

\(^5\) 44 FR 53761 and 53762, September 17, 1979  
\(^6\) Nonattainment areas classified as serious or worse must implement RACT on stationary sources with a potential emit of at least 50 tons per year of VOCs irrespective of location within or outside an ozone transport region.
NOx. However, the threshold defining a major stationary source of NOx within ozone transport regions remains at a potential to emit at least 100 tons per year of NOx in areas designated attainment and in nonattainment areas classified as marginal or moderate.\footnote{57 \textit{FR} 55620 at 55622, November 25, 1992.}

Under Section 183 of the CAA, EPA was required to issue by certain timeframes several guidance documents that would help states meet the requirements of Section 182(b)(2). This requirement upon EPA includes developing Alternate Control Techniques (ACT) documents for controls of NOx emissions from stationary sources.

Information in ACT documents is available to states to consider as they establish controls on relevant NOx sources in their moderate or worse nonattainment areas. In areas with continuing nonattainment problems, such as the Baltimore Nonattainment Area, more stringent controls have been adopted as RACT or as beyond RACT.

**Major Source Threshold Levels**

Maryland is part of the Northeast Ozone Transport Region (OTR) and contains nonattainment areas classified as “moderate” or “marginal”. For the purpose of the 2008 8-hour Ozone NAAQS, the threshold for what constitutes a major stationary source of VOCs or NOx is that required any of the following criteria:

- Due to an area’s nonattainment classification under the 2008 8-hour Ozone NAAQS
- Due to its presence in the ozone transport region due to regulations/requirements specified under previous SIP commitments.\footnote{Under anti-backsliding rules of 40 CFR 51.1105 stationary sources of NOx below this 100 tons per year threshold remain subject to any applicable regulations for the control of NOx.}

Sources in Maryland will continue to be subject to the applicability requirements of COMAR 26.11.09.08A. The regulation applies to a person who owns or operates an installation that causes emissions of NOx and is located at premises that have total potential to emit:

a) 25 tons or more per year of NOx and is located in Baltimore City, or Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, or Prince George’s counties; or

b) 100 tons or more per year of NOx and is located in Allegany, Caroline, Dorchester, Garrett, Kent, Queen Anne’s, St. Mary’s, Somerset, Talbot, Washington, Wicomico, or Worcester counties.

**Responsibilities**

The agency with direct responsibility for preparing and submitting this document is the Maryland Department of the Environment (MDE), Air and Radiation Administration (ARA), Air Quality Planning Program, Managed by Mr. Brian J. Hug, Program Manager.
2.0 RACT SIP DETERMINATION

Certification of NOx RACT

The Maryland Department of the Environment (MDE) has prepared this Reasonably Available Control Technology (RACT) analysis to demonstrate that the State has met its obligation relating to the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS). MDE is certifying that all RACT regulations adopted to the present date are RACT for the 2008 8-hour ozone NAAQS as they reflect the most current pollution control technologies and economic considerations. Based on the review of current technologies, MDE has found no data indicating that the existing levels of control for these source categories are no longer RACT.

Maryland is also certifying through this SIP submittal that Maryland meets the CAA RACT requirements for NOx sources with potential to emit 100 TPY or more.

This certification is based on the following supporting information: (1) a certification that previously adopted RACT controls in Maryland’s SIP and that were approved by EPA under the 1997 8-hour ozone NAAQS are based on the current availability of technically and economically feasible controls and that they continue to represent RACT for 2008 8-hour NAAQS implementation purposes, and (2) the adoption of new or more stringent regulations that represent RACT control levels for certain source categories.

Maryland Small Source Requirement for NOx

In regulation COMAR 26.11.02 “Permits, Approvals and Registration,” Maryland has established a comprehensive review process for minor sources. By keeping the Maryland exemption threshold low, all other sources are included in the review process. The affected minor sources emit well below the major source. The requirements of COMAR 26.11.02 ensure that all major sources are controlled by RACT at a minimum.
Overview of COMAR Requirements

Code of Maryland Regulations (COMAR) 26.11.09.08 represent Maryland’s NOx RACT controls that have been implemented and were previously approved into the Maryland SIP under the 1-hour ozone NAAQS and 1997 8-hour ozone NAAQS. These regulations address NOx RACT for major NOx sources, including but not limited to: fuel burning equipment, space heaters, glass melting furnaces, and industrial furnaces. A full listing of the major (high impact) NOx sources in Maryland and the corresponding RACT regulate on is included in Appendix B.

Maryland also implemented additional NOx controls as part of its SIP necessary to meet other Federal and state requirements, and which as recently revised represent NOx RACT to date under the 2008 8-hour ozone NAAQS. Certain NOx requirements of COMAR 26.11.29 and 26.11.30 currently ensure that affected cement manufacturing facilities and natural gas compressor stations achieve RACT level reductions of at least a 30 percent and 82 percent reduction, respectively, from uncontrolled levels (70 FR at 71653, November 29, 2005).

Hospital, medical, and infectious waste incinerators (HMIWI) are subject to the RACT requirements under 26.11.08.08-2 and municipal waste combustors (MWC) are subject to the RACT requirements under 26.11.08.07 and 26.11.08.08. Kraft pulp mills are subject to RACT requirements that were recently adopted into COMAR 26.11.14 & COMAR 26.11.40. Portions of COMAR 26.11.08.08-2, 26.11.08.08, and 26.11.08.07 are being submitted for approval into the SIP. The largest coal-fired electric generating units are subject to SIP-approved NOx requirements that were recently adopted into COMAR under 26.11.38, some of which MDE is certifying represent NOx RACT to date.
Table 1: Maryland NOx RACT Regulations under the 2008 8-Hour Ozone NAAQS

<table>
<thead>
<tr>
<th>Source Category</th>
<th>Basis for RACT Control</th>
<th>Code of Maryland Regulations (COMAR) Citation</th>
<th>Summary of Applicable RACT Standards</th>
<th>EPA Latest SIP Approval or MDE Latest SIP Revision</th>
<th>State Effective Date</th>
<th>Requirements at least as stringent as RACT level for the 2008 Ozone NAAQS?</th>
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<tr>
<td>Fuel-Burning Equipment Located at Major Sources – General Requirements and Conditions</td>
<td>1. Summary of NOx Control Technologies and their Extent of Application, USEPA February 1992; 2. State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; 3. USEPA Memorandum Subject: De Minimis Values for NOx RACT, from G.T. Helms, Ozone Policy and Strategies Group, dated 1/1/1995; and 4. Alternative Control Techniques (ACT) Document, NOx Emissions from Industrial/Commercial/Institutional (ICI) Boilers (EPA-453/R-94-022).</td>
<td>26.11.09.08A&amp;B MDE confirms that there are no additional sources at this time seeking alternative standards and that MDE continues to rely on any alternative standards that have been previously approved into the SIP.</td>
<td>NOx RACT standards apply to tangentially or wall-fired fuel-burning units, based on fuel: Gas only: 0.20 pounds of NOx per Million Btu per hour (lb/MMBTU) Gas/Oil: 0.25 lb/MMBTU Coal (dry bottom): 0.38 lb/MMBTU/hr Coal (wet bottom): 1.0 lb/MMBTU/hr</td>
<td>3/28/2018, 83 FR 13192</td>
<td>11/24/2003</td>
<td>Yes. This provision fully implements NOx RACT controls over the targeted sources. It was approved by EPA as RACT under the 1997 ozone standard. After EPA’s approval there has been no significant change in RACT control technology for the covered sources.</td>
</tr>
</tbody>
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9 Because SIP 15-04 was the last amend a Section of Regulation .08, the overall COMAR 26.11.09.08 Control of NOx Emissions from Major Sources approval date matches the approval of SIP 15-04
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- Coal  
  - Tangentially fired: 0.70 lb/MMBTU (for high heat release units); 0.45 lb/MMBTU (all other units)  
  - Cyclone: 0.70 lb/MMBTU/hr from May 1 to September 30, and 1.5 lb/MMBTU for the remainder of the year.  
  - Cell burner: 0.6 lb/MMBTU  
  - Wall fired: 0.80 lb/MMBTU (for high heat release units); 0.50 lb/MMBTU (all other units)  
- Oil fired or gas/oil fired: 0.30 lb/MMBTU | 3/28/2018, 83 FR 13192 | 3/3/2014 | Yes. This provision fully implements NOx RACT controls over the targeted sources.  
It was approved by EPA as RACT under the 1997 ozone standard. After EPA’s approval there has no significant change in RACT control technology for the covered sources.  
In addition, Maryland has adopted more stringent NOx emissions limits in COMAR 26.11.38 for several of the units in this category, which is also certifying as RACT. See Section 2.1.1 “Implementation of Non-CTG Specified NOx Controls” for more details. |
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<tr>
<td>Fuel-Burning Equipment with a Rated Heat Input Capacity of Less than 250 MMBtu/hr and Greater than 100 MMBtu/hr</td>
<td>1. Summary of NO\textsubscript{x} Control Technologies and their Extent of Application, USEPA February 1992; 2. State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; 3. USEPA Memorandum Subject: De Minimis Values for NO\textsubscript{x} RACT, from G.T. Helms, Ozone Policy and Strategies Group, dated 1/1/1995; and 4. Alternative Control Techniques (ACT) document, NO\textsubscript{x} Emissions from Industrial/Commercial/Institutional (ICI) Boilers (EPA-453/R-94-022).</td>
<td>26.11.09.08D</td>
<td>For coal fired fuel-burning equipment: The installation and operation of the affected unit in accordance with the manufacturer’s specifications, combustion modifications, or other technologies to meet an emission rate of 0.65 lb/MMBTU. For all other: compliance with 26.11.09.08B(1)(c).</td>
<td>3/28/2018, 83 FR 13192</td>
<td>11/11/2002</td>
<td>Yes. This provision fully implements RACT NOx controls over the targeted sources. It was approved by EPA as RACT under the 1997 ozone standard. After EPA’s approval there has been no updated ACT and no significant change in RACT control technology for the covered sources.</td>
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<td>Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu/hr or Less</td>
<td>1. Summary of NO&lt;sub&gt;x&lt;/sub&gt; Control Technologies and their Extent of Application, USEPA February 1992; 2. State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; 3. USEPA Memorandum Subject: De Minimis Values for NO&lt;sub&gt;x&lt;/sub&gt; RACT, from G.T. Helms, Ozone Policy and Strategies Group, dated 1/1/1995; and 4. Alternative Control Techniques (ACT) document, NO&lt;sub&gt;x&lt;/sub&gt; Emissions from Industrial/Commercial/Institutional (ICI) Boilers (EPA-453/R-94-022).</td>
<td>26.11.09.08E</td>
<td>Applicable NO&lt;sub&gt;x&lt;/sub&gt; RACT standards include: Performing a combustion analysis for each installation at least once each year and optimizing combustion based on the analysis.</td>
<td>3/28/2018, 83 FR 13192</td>
<td>9/18/2000</td>
<td>Yes. This provision fully implements NO&lt;sub&gt;x&lt;/sub&gt; RACT controls over the targeted sources. It was approved by EPA as RACT under the 1997 ozone standard. After EPA’s approval there has been no significant change in RACT control technology for the covered sources.</td>
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<td>Space Heaters</td>
<td>1. Summary of NOx Control Technologies and their Extent of Application, USEPA February 1992; 2. State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; 3. USEPA Memorandum Subject: De Minimis Values for NOx RACT, from G.T. Helms, Ozone Policy and Strategies Group, dated 1/1/1995; and 4. Alternative Control Techniques (ACT) document, NOx Emissions from Industrial/Commercial Institutional (ICI) Boilers (EPA-453/R-94-022).</td>
<td>26.11.09.08F</td>
<td>Applicable NOx RACT standards include: Developing an operating and maintenance plan to minimize NOx emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience; implementing the operating and maintenance plan.</td>
<td>3/28/2018, 83 FR 13192</td>
<td>9/18/2000</td>
<td>Yes. This provision fully implements NOx RACT controls over the targeted sources. It was approved by EPA as RACT under the 1997 ozone standard. After EPA’s approval there has been no significant change in RACT control technology for the covered sources.</td>
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<td>Hospital, Medical, and Infectious Waste Incinerators (HMIWI)</td>
<td>EPA’s 2009 revision to 40 CFR Part 60, Subpart Ec, and “Standards of Performance for Hospital/Medical/Infectious/Waste Incinerators.”</td>
<td>26.11.08.01, 26.11.08.02, 26.11.08.08-2 (As redacted in Appendix D)</td>
<td>NO\textsubscript{x} emissions from hospital, medical, and infectious waste incinerators as defined in COMAR 26.11.08.01B may not exceed NO\textsubscript{x} emission standards in COMAR 26.11.08.08-2B(1) (190 ppm 24-hour average for small and medium HMIWIs and 140 ppm 24-hour average for large HMIWIs) as applicable.</td>
<td>This regulation is being submitted to EPA for SIP approval. (See section 2.1.1)</td>
<td>4/2/2012</td>
<td>Yes. This provision fully implements NO\textsubscript{x} RACT controls over the targeted sources.</td>
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<td>Municipal Waste Combustors (MWC)</td>
<td>1. EPA’s 2007 Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors 2. Federal Plan for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999, 40 CFR 62 Subpart JJJ</td>
<td>26.11.08.01, 26.11.08.02, 26.11.08.07, 26.11.08.08 (As redacted in Appendix E)</td>
<td>NO\textsubscript{x} emissions from municipal waste combustors may not exceed 24-hour average NO\textsubscript{x} emissions of 205 ppmv. A person may not operate a municipal waste combustor that has a burning capacity of 35 tons or more per day and less than or equal to 250 tons per day that was constructed on or before August 30, 1999 which results in violation of the provisions of 40 CFR 62 Subpart JJJ.</td>
<td>This regulation is being submitted to EPA for SIP approval. (See section 2.1.1)</td>
<td>2/15/2016</td>
<td>Yes. This provision fully implements NO\textsubscript{x} RACT controls over the targeted sources.</td>
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<td>Glass Melting Furnaces</td>
<td>EPA's NSPS for Glass Plants (40 CFR 60, subpart CC) and NESHAP for area source Glass Plants (40 CFR 63, subpart SSSSSS)</td>
<td>26.11.09.08I</td>
<td>Optimization of combustion by performing daily oxygen tests and maintaining excess oxygen at 4.5 percent or less.</td>
<td>3/28/2018, 83 FR 13192</td>
<td>7/20/2015</td>
<td>Yes. This provision fully implements NOx RACT controls over the targeted sources. It was approved by EPA as RACT under the 1997 ozone standard. After EPA’s approval there has been no significant change in RACT control technology for the covered sources.</td>
</tr>
<tr>
<td>Industrial Furnaces and Other Miscellaneous Installations that Cause Emissions of NOx</td>
<td>Alternative Control Techniques document: NOx Emissions from Industrial/Commercial/Institutional (ICI) Boilers, EPA-453/R-94-022, March 1994</td>
<td>26.11.09.08J</td>
<td>NOx RACT standards for any installations other than fuel-burning equipment include: Maintaining good operating practices as recommended by the equipment vendor to minimize NOx emissions; and burning only gas in each installation, where gas is available, during the period May 1 through September 30 of each year.</td>
<td>3/28/2018, 83 FR 13192</td>
<td>9/18/2000</td>
<td>Yes. This provision fully implements NOx RACT controls over the targeted sources. It was approved by EPA as RACT under the 1997 ozone standard. After EPA’s approval there has been no significant change in RACT control technology for the covered sources.</td>
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<td>Kraft Pulp Mills (Prior to 3/3/2014 Kraft Pulp Mills NOx RACT was found under 26.11.09.08C(2)(h))</td>
<td>Federal standards for NOx emissions from boilers at pulp and paper facilities (Alternative Control Techniques document: NOx Emissions from Industrial/Commercial/Institutional (ICI) Boilers, EPA-453/R-94-022, March 1994)</td>
<td>26.11.14.01; 26.11.14.02; 26.11.14.07 &amp; 26.11.40</td>
<td>NOx RACT standards applicable to any fuel burning equipment at Luke Kraft pulp mill.  During the period May 1 through September 30 of each year: 0.70 lb/MMBTU and NOx ozone season emission cap of 656 tons.  During the period October 1 through April 30 of each year: 0.99 lb/MMBTU, 30 day rolling average.</td>
<td>7/17/2017, 82 FR 32641 (26.11.14) SIP #18-03 for 26.11.40 &amp; 26.11.14.07 was submitted to EPA for approval on 5/17/18</td>
<td>26.11.14 - 5/9/2016 26.11.40 - 4/23/18</td>
<td>Yes. This provision fully implements NOx RACT controls over the targeted sources.  It was approved by EPA as RACT under the 1997 ozone standard (as COMAR 26.11.09.08C(2)(h)) and although re-codified, the control requirements remain the same. After EPA’s approval there has been no significant change in RACT control technology for the covered sources.  The new action in SIP #18-03 removes 95 NOx allowances under 26.11.14.07.</td>
</tr>
<tr>
<td>Portland Cement Manufacturing Plants</td>
<td>EPA’s 2004 Alternative Control Techniques (ACT) for NOx Emission from Cement Manufacturing</td>
<td>26.11.30.01, .02, .03, .07, and .08</td>
<td>NOx RACT standards applicable to a cement kiln at a Portland cement manufacturing plant:  On or after April 1, 2017:  For dry long kilns: 3.4 lb of NOx/ton of clinker  For pre-calciner kilns: 2.4 lb of NOx/ton of clinker  Both of Maryland’s cement plants are now of the pre-calciner type kiln.</td>
<td>3/28/2018, 83 FR 13192</td>
<td>7/20/2015</td>
<td>Yes. This provision fully implements NOx RACT controls over the targeted sources.  The original NOx control requirements were approved by EPA into the SIP and determined adequate as RACT under the 1997 ozone standard as COMAR 26.11.09.08H(1)&amp;(2). Recent regulatory amendments reflect more stringent RACT level of control than previously adopted as RACT under 1997 ozone standard.</td>
</tr>
<tr>
<td>Source Category</td>
<td>Basis for RACT Control</td>
<td>Code of Maryland Regulations (COMAR) Citation</td>
<td>Summary of Applicable RACT Standards</td>
<td>EPA Latest SIP Approval or MDE Latest SIP Revision</td>
<td>State Effective Date</td>
<td>Requirements at least as stringent as RACT level for the 2008 Ozone NAAQS?</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Natural Gas Compression Station Engines</td>
<td>EPA’s 1993 Alternative Control Techniques for Stationary Reciprocating Internal Combustion Engines</td>
<td>26.11.29.02C(2) (Prior to 7/20/2015 Internal Combustion Engines at NG Pipeline Stations NOx RACT was found under 26.11.09.08I)</td>
<td>Applicable NOx RACT standards depend on the types and size of engine.</td>
<td>3/28/2018, 83 FR 13192</td>
<td>7/20/2015</td>
<td>Yes. This provision fully implements NOx controls over the targeted sources. The original NOx control requirements were approved by EPA into the SIP and determined adequate as RACT under the 1997 ozone standard as COMAR 26.11.09.08I and although recodified, the control requirements remain the same. After EPA’s approval there has been no significant change in RACT control technology for the covered sources.</td>
</tr>
</tbody>
</table>
| Source Category | Basis for RACT Control | Code of Maryland Regulations (COMAR) Citation | Summary of Applicable RACT Standards | EPA Latest SIP Approval or MDE Latest SIP Revision | State Effective Date | Requirements at least as stringent as RACT level for the 2008 Ozone NAAQS?
---|---|---|---|---|---|---
Additional NOx RACT requirements for Coal-Fired EGUs | | 26.11.38 EPA SIP-Approved Version See section 2.1.1 | | 5/30/2017, 82 FR 24546 | 8/31/2015 | Maryland has adopted more stringent NOx limits for coal-fired electric generating units (EGUs) with a capacity greater than or equal to 25 MW. This subset of fuel-burning equipment is regulated under the SIP-approved version of COMAR 26.11.38. See Section 2.3.1 of this document for details.
This regulation requires the lowest emission limitations that the covered sources are capable of meeting by the application of control technology that is reasonably available considering current technological and economic feasibility. The Department determines that these requirements satisfy the current RACT requirements under the 2008 ozone NAAQS. |
2.1.1 Implementation of Non-CTG Specified NOx Controls

As indicated in Table 1 above, Maryland is certifying that the framework of the above regulations contain provisions implementing adequate NOx RACT controls under the 2008 ozone standard. The majority of the non-CTG specified rules were developed for meeting requirements of the CAA Section 182(b)(2), if not other, related federal regulations regulating NOx emissions.

Maryland has also developed COMAR regulations and other controls to implement additional NOx controls rules and requirements to aid in maintenance of the 1-hour standard and attainment of the 8-hour NAAQS.

EPA has defined RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility (44 FR 53762). This definition indicates that the RACT requirements must include compliance with the lowest emission levels that were achieved in the past, are achieved at present, or will be achieved in the future under facility’s operational limitations (such as operational permits) and equipment standards that were previously applicable, are presently applicable, or will become applicable in the future, respectively. The MDE believes that the development of its non-CTG specified NOx rules reflects exactly the EPA’s RACT definition, and MDE has determined that those rules are necessary for Maryland to attain the 2008 ozone NAAQS.

The non-CTG NOx rules are discussed in details below.
COMAR 26.11.38 contains stringent NOx control requirements for certain coal-fired EGUs that MDE determined represents NOx RACT level of control. MDE is therefore certifying that the NOx control requirements in 26.11.38 of this regulation are adequate to meet RACT under the 2008 8-hour ozone standard. The regulation can be found at the location provided below and also in Appendix C.


This regulation became effective as an emergency regulation on 5/1/2015 and was permanently adopted on 8/31/2015 to limit NOx emission rates of each affected electric generating unit to minimize NOx emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with technological limitations and combustion controls consistent with the technological limitations, manufacturers’ specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 CFR §60.11(d)) for such equipment and the unit at all times the unit is in operation while burning any coal.

The following provisions adequately establish NOx RACT level reductions for affected units.

1. As provided in 26.11.38.01, “Affected electric generating unit” means any one of the following coal-fired electric generating units:
   i. Brandon Shores Units 1 and 2;
   ii. C.P. Crane Units 1 and 2;
   iii. Chalk Point Units 1 and 2;
   iv. Dickerson Units 1, 2, and 3;
   v. H.A. Wagner Units 2 and 3;
   vi. Morgantown Units 1 and 2; and
   vii. Warrior Run.

2. Under 26.11.38.03A(1), the regulation required the owner or operator of an affected electric generating unit (the unit) to submit a plan to the Department and EPA for approval that demonstrates how each affected electric generating unit will operate installed pollution control technology and combustion controls to meet the above optimization requirements. The plan must include a summary of the data that will be collected to demonstrate compliance with the regulation and must cover all modes of operation, including but not limited to normal operations, start-up, shut-down, and low load operations.

3. As required by 26.11.38.03A(2), beginning on May 1, 2015, for each operating day during the ozone season, the owner or operator of an affected electric generating unit shall minimize NOx emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers’ specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 CFR §60.11(d)) for such equipment and the unit at all times the unit is in operation while burning any coal.

4. 26.11.38.03B sets up stringent NOx emission rates:
   a. The owner or operator of an affected electric generating unit equipped with a fluidized bed combustor shall not exceed a NOx 24-hour block average emission rate of 0.10 lbs/MMBtu.
b. Rolling system-wide 30-day NOx emission rate of 0.15 lbs/MMBtu.

(5) As provided in 26.11.38.04, affected units must demonstrate compliance with the control requirement to minimize NOx emissions in 26.11.38.03A(1)-(2) by operating the units at levels that are at or below the following 24-hour block average rates:

<table>
<thead>
<tr>
<th>Affected Unit</th>
<th>24-Hour Block Average NOx Emissions in lbs/MMBtu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandon Shores</td>
<td></td>
</tr>
<tr>
<td>Unit 1</td>
<td>0.08</td>
</tr>
<tr>
<td>Unit 2 &lt;650 MWg</td>
<td>0.07</td>
</tr>
<tr>
<td>Unit 2 ≥650 MWg</td>
<td>0.15</td>
</tr>
<tr>
<td>C.P. Crane</td>
<td></td>
</tr>
<tr>
<td>Unit 1</td>
<td>0.30</td>
</tr>
<tr>
<td>Unit 2</td>
<td>0.28</td>
</tr>
<tr>
<td>Chalk Point</td>
<td></td>
</tr>
<tr>
<td>Unit 1 only</td>
<td>0.07</td>
</tr>
<tr>
<td>Unit 2 only</td>
<td>0.33</td>
</tr>
<tr>
<td>Units 1 and 2 combined</td>
<td>0.20</td>
</tr>
<tr>
<td>Dickerson</td>
<td></td>
</tr>
<tr>
<td>Unit 1 only</td>
<td>0.24</td>
</tr>
<tr>
<td>Unit 2 only</td>
<td>0.24</td>
</tr>
<tr>
<td>Unit 3 only</td>
<td>0.24</td>
</tr>
<tr>
<td>Two or more units combined</td>
<td>0.24</td>
</tr>
<tr>
<td>H.A. Wagner</td>
<td></td>
</tr>
<tr>
<td>Unit 2</td>
<td>0.34</td>
</tr>
<tr>
<td>Unit 3</td>
<td>0.07</td>
</tr>
<tr>
<td>Morgantown</td>
<td></td>
</tr>
<tr>
<td>Unit 1</td>
<td>0.07</td>
</tr>
<tr>
<td>Unit 2</td>
<td>0.07</td>
</tr>
</tbody>
</table>

If these emissions levels are exceeded, the facility shall submit a unit-specific report as specified in 26.11.38.04A(3).

(6) 26.11.38.04 establishes standards reporting requirements for the covered EGUs.

a. Reporting Schedule.

i. Beginning 30 days after the first month of the ozone season following the effective date of this chapter, each affected electric generating unit subject to the requirements of this chapter shall submit a monthly report to the Department detailing the status of compliance with this chapter during the ozone season.
ii. Each subsequent monthly report shall be submitted to the Department not later than 30 days following the end of the calendar month during the ozone season.

b. Monthly Reports During Ozone Season. Monthly reports during the ozone season shall include:
   i. Daily pass or fail of the NO\textsubscript{x} emission rates under Regulation .04A(2) of this chapter;
   ii. The reporting information as required under Regulation .04A(3) of this chapter, and COMAR final text effective 8/31/15;
   iii. The 30-day system-wide rolling average emission rate for each affected electric generating unit to demonstrate compliance with Regulation .03B(1) of this chapter;

**Affected Sources:**

The 14 coal-fired electric generating units identified as affected sources in this regulation are the largest contributors of NO\textsubscript{x} from major stationary sources in Maryland. The affected sources are equipped with either the best post-combustion NO\textsubscript{x} control technology (SCR) or the second-best post combustion NO\textsubscript{x} control technology (SNCR). Even with the application of advanced control technologies, this subset of major sources typically combine to emit more than 50% of the total NO\textsubscript{x} mass from major stationary sources in Maryland.

Because the NO\textsubscript{x} control devices are already installed on the units, the optimization of the control devices resulting in the NO\textsubscript{x} rates set forth in the regulation allow for an economically feasible application of the controls and a high potential for NO\textsubscript{x} reductions.

The MDE incorporates hereby the following into this RACT SIP revision for the “affected generating units”, listed in (1) above, to meet the RACT requirements under the 2008 ozone standard:

   i. The definitions and applicability provisions of COMAR 26.11.38.01 and .02, as described in (1) above;
   ii. The requirement to minimize NO\textsubscript{x} emission by operating and optimizing the use of all installed pollution control technology and combustion controls in COMAR 26.11.38.03A, as summarized in (2) & (3) above;
   iii. The NO\textsubscript{x} limits as specified in COMAR 26.11.38.03B, C & D as summarized in (4) above;
   iv. The compliance demonstration requirements as specified in COMAR 26.11.04 and summarized in (5) above;
   v. The reporting requirements as specified in COMAR 26.11.05 and summarized in (6) above.
COMAR regulation 26.11.08.08-2 contains NOx control requirements for HMIWIs that achieve NOx RACT level reductions. MDE is therefore certifying that the NOx control requirement in 26.11.08.08-2 is adequate to meet RACT under the 2008 8-hour ozone standard. The provisions of this regulation, as shown in Appendix D, cover applicability, emissions limits, and compliance demonstration requirements.

Incinerators that burn hospital waste consisting of discards generated at a hospital, and medical/infectious waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research, or in the production or testing of biologicals are HMIWIs. Requirements for HMIWIs are divided into categories by size, location (rural/urban) and date of construction/modification.

U.S. Army Fort Detrick and Curtis Bay Energy are the two HMIWI facilities in Maryland. To the best of our ability, MDE has not identified any small rural HMIWI facilities in Maryland.

<table>
<thead>
<tr>
<th>Actual Facility NOx Emissions</th>
<th>NOx Emissions (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curtis Bay Energy</td>
<td>39.60</td>
</tr>
<tr>
<td>Fort Detrick</td>
<td>0.401</td>
</tr>
</tbody>
</table>

**U.S. Army Fort Detrick**

US Army Fort Detrick operates two large HMIWI units, each rated at 1,000 lbs/hr each equipped with an emissions control system and a waste heat recovery boiler, located in Building 393.

The two HMIWI units are dual-burn incinerators with a primary and secondary chamber. These incinerators use natural gas as auxiliary fuel, with No. 2 fuel oil for backup, and are equipped with rotary atomizing (wet) scrubbers and cyclonic separators for air pollution control. Each incinerator has a primary stack and they both share a dump stack which will be used when the primary stacks are not operational or in the case of an emergency situation. The rotary atomizing scrubber, manufactured by Emcotek, Inc., is an emission control device that uses a water spray from a high velocity rotor (rotating at several hundred feet per second) to effect particulate and acid gas emissions control. The current drawn by the rotor motor is continuously monitored and is regarded as an operating parameter equivalent to pressure drop across a venturi scrubber.

As shown above the two HMIWI units have emitted less than one ton of NOx on average per year over the last seven years making the installation of additional NOx RACT control technologies infeasible.
Curtis Bay Energy

Curtis Bay Energy (formerly Phoenix Services) operates two large commercial HMIWI units with a permitted total combined capacity of 150 tons per day.

The HMIWI units are equipped with secondary and tertiary combustion chambers, heat recovery boiler, a dry injection acid gas scrubber, a powder activated carbon injection (PAC) system, a fabric filter with passive dioxins/furans emissions control and a selective non-catalytic reduction (SNCR) system for NOx.

The two HMIWI units comprise the vast majority of the facility emissions. As shown above the two HMIWI units emit approximately 45 tons of NOx on average per year over the last seven years.

Because the NOx control device is already installed on the units, the optimization of the control device resulting in the NOx rates set forth in the regulation allow for an economically feasible application of the controls and a high potential for NOx reductions.

U.S. Army Fort Detrick and Curtis Bay Energy are the two HMIWI facilities in Maryland with HMIWI unit installation dates of 1995 and 1991, respectively. To the best of our ability, MDE has not identified any small rural HMIWI facilities in Maryland.

The MDE incorporates hereby the following into this RACT SIP revision for the HMIWI, to meet the RACT requirements under the 2008 ozone standard:

COMAR regulation 26.11.08.08-2 as shown in Appendix D and MDE certifies, to the best of our ability, that no small rural HMIWI facilities have been identified within Maryland.
Determination of Certain Provisions of COMAR 26.11.08 for Municipal Waste Combustion (MWC) as RACT

COMAR regulations 26.11.08.07 and 26.11.08.08 contain NOx control requirements for different sizes of MWCs that achieve NOx RACT level reductions. MDE is therefore certifying that the NOx control requirements in 26.11.08.07 and 26.11.08.08 are adequate to meet RACT under the 2008 8-hour ozone standard. The regulations can be found in Appendix E.

Maryland MWCs are in two size categories. A large MWC is an existing municipal waste combustor for which construction began on or before September 20, 1994 and that has a capacity to burn 250 tons per day of municipal waste as defined under 40 CFR 60.32b. An MWC with a capacity range of 35 tons or more per day and less than 250 tons per day is also subject to standards and requirements.

Small Municipal Waste Combustion Unit Category

One facility is subject to 26.11.08.07 requirements: U.S. Army Garrison at Fort Detrick Area A. The Harford County Resource Recovery Facility, reported in previous RACT documents, has closed.

The actual NOx emission from the small municipal waste combustion facility in Maryland is listed below:

<table>
<thead>
<tr>
<th>Actual Facility NOx Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Detrick Area A</td>
</tr>
</tbody>
</table>

U.S. Army Fort Detrick

Two (2) small municipal waste combustion units, ECP Model 2500T, each rated at 39 ton/day and each equipped with an emissions control system and a waste heat recovery boiler, located in Bldg. 393.

Emission Units B1 and B4 were first registered with the Department in 1975. The incinerators use natural gas as auxiliary fuel, with No. 2 fuel oil for backup. The units were originally designated as general refuse waste incinerators and nominally rated at 2,000 pounds per hour. Each incinerator is equipped with two primary chamber burners and one secondary chamber burner with venturi scrubbers and cyclonic separators for air pollution control, and operate as starved-air units. Each incinerator is equipped with two waste heat recovery boilers. The emissions control system for these incinerators was extensively redesigned in order to achieve compliance with the Federal Plan for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999, 40 CFR 62 Subpart JJ. The control system on each incinerator includes a quench tower, a rotary atomizing (wet) scrubber, a demister, a fixed bed carbon adsorption system (chiefly for mercury and dioxins/furans emissions control), and two final stages of HVAC-type fiber filters for control of particulates.
The actual capacity for MSW is estimated to be at least 39 tons per day (for 5,000 Btu/lb waste), bringing them into the Small Municipal Waste Combustion Unit category (i.e., 35 tons per day or larger, but less than 250 tons per day). The incinerators qualify as “Class II” incinerators since the facility-wide total capacity for MSW is less than 250 tons per day.

As shown above the two MWC units have emitted less than four tons of NO\textsubscript{X} on average per year over the last seven years making the installation of additional NO\textsubscript{X} RACT control technologies infeasible.

**Large Municipal Waste Combustion Unit Category**

Maryland has two large MWCs: Montgomery County Resource Recovery Facility and Wheelabrator Baltimore, L.P.

The actual NO\textsubscript{X} emissions from the two large municipal waste combustion facilities in Maryland are listed below:

<table>
<thead>
<tr>
<th>Actual Facility NO\textsubscript{X} Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility NO\textsubscript{X} Emissions (tpy)</td>
</tr>
<tr>
<td>Wheelabrator Baltimore, L.P.</td>
</tr>
<tr>
<td>Montgomery County RRF</td>
</tr>
</tbody>
</table>

**Wheelabrator Baltimore, L.P.**

Wheelabrator Baltimore, L.P. (Wheelabrator or the “Company”), formerly known as Baltimore RESCO Company, L.P., operates a municipal solid waste resource recovery facility. The facility consists of three large Frye mass burn waterwall municipal waste combustors each rated at 750 tons per day (TPD) yielding a facility wide capacity of 2,250 TPD. The steam that is generated by the MWCs is either sold to a steam distribution system or used to produce electricity via an on-site steam turbine.

Combustion gases are exhausted through a stack (Emission Point EP1) that contains three flues, one for each of the three MWCs. Each MWC train is equipped with a urea injection selective non-catalytic reduction (SNCR) system to control NO\textsubscript{X} emissions. Each stack is equipped with a continuous opacity monitoring system (COM) and continuous emission monitoring systems (CEMS) for monitoring the carbon monoxide (CO), sulfur dioxide (SO\textsubscript{2}), and nitrogen oxides (NO\textsubscript{x}) content of the stack exhaust gases, as well as an oxygen (O\textsubscript{2}) and carbon dioxide (CO\textsubscript{2}) monitors for monitoring the stack gas dilution. Additionally, SO\textsubscript{2} and O\textsubscript{2} CEMS are located upstream of control devices for determining percent reduction of SO\textsubscript{2}. 
Montgomery County RRF (MCRRF)

The MCRRF consists of three independent combustion trains and has a nominal design capacity of 1,800 tons per day (tpd). The thermal output from the facility is used to generate up to approximately 63 megawatts (MW) of electricity for in-plant needs and sale to an energy broker. Natural gas fired auxiliary burners are used exclusively for unit warmup, startup, and shutdown situations, as well as to maintain optimum combustion when necessary.

Containerized waste is delivered to the facility by rail car from the Montgomery County Solid Waste Transfer Station. Rail car containers are loaded to flatbed trucks and transported to the tipping floor at the MCRRF. The tipping floor area is operated under negative pressure to minimize fugitive odors. The ventilation air is drawn from the tipping floor and ducted into the combustion zones of each furnace.

From the refuse pit waste is fed to the furnace feed hopper where solid waste slides by gravity into the refuse chute. A ram feeder pushes the solid waste onto a grate system. The grate system moves the waste through the furnace as the waste is burned.

The combustion system is comprised of three identical mass-burn, water wall furnaces, each nominally capable of burning 600 tpd of refuse on an annual average basis. Within each train, the refuse is charged onto a reverse reciprocating grate for combustion. The combustion gases in the furnace pass through the radiant, convective and economizer sections of the boiler, and then through the air pollution control system (APC). The APC currently consists of an ammonia injection system for control of NOx (SNCR), a dry scrubber for primary acid gas control and an activated carbon injection system for mercury control in series with a baghouse for removal of particulate matter. Each unit has a furnace dry lime injection system (FDLIS) that is capable of feeding hydrated lime directly into the combustion zone for additional acid gas control on an as needed basis. Ash is mixed with dolomitic lime as necessary. Ash is wetted, and the ash handling systems and storage containers are enclosed to prevent fugitive particulate emissions.

The NOx standards under COMAR 26.11.08.08 are based on EPA’s Maximum Achievable Control Technology (MACT) standard10 for municipal waste combustion. The MACT standard was published in the Federal Register on May 10, 2006. The MWCs are equipped with SNCR ammonia-injection systems for control of NOx and MCCR has a Covanta Low NOx system as well, which achieves a 47% NOx reduction. These controls will enable the units to meet the EPA MACT standard.

The MDE incorporates hereby the following into this RACT SIP revision for the Municipal Waste Combustion (MWC), to meet the RACT requirements under the 2008 ozone standard:

- COMAR regulation 26.11.08.07
- COMAR regulation 26.11.08.08 as shown in Appendix E

3.0 MDE INTERNAL CONSULTATION PROCESS AND EPA’S RACT/BACT CLEARINGHOUSE

Maryland has roughly 600 high impact facilities that have been permitted by MDE’s Air and Radiation Administration (ARA) Permits Program. On an annual basis the MDE Air and Radiation Management Compliance Program performs approximately 2,000 inspections and audits. With the expertise of over 18,000 issued permits, a consultation process with ARMA’s Permits and Compliance Programs was conducted during the development of this SIP, for information regarding the potential for RACT enhancement. There were no potential RACT enhancements identified during this consultation process.

As part of its comprehensive review process to assure that all relevant RACT standards have been addressed and met, MDE reviewed EPA’s RACT/BACT Clearinghouse database. Through its review, MDE did not observe any discrepancies between the database and the information generated from within the department. Maryland chose several of its largest emission source categories and provided in Appendix A of this report, copies of the RACT/BACT Clearinghouse Data sheets for review.

4.0 REFERENCE DOCUMENTS

Alternative Control Techniques (ACT) Documents and Additional Reference Documents

U.S. EPA’s Control Techniques Guidelines documents, Alternative Control Techniques documents, and Additional Reference Documents, cited in this SIP Submittal for Determination of RACT Controls of NO\textsubscript{x} Emissions from Stationary Sources, are listed below.

**Alternative Control Techniques Documents:**


**Additional Reference Documents**
2. NESCAUM, Stationary Source Committee Recommendation on NOx RACT for Utility Boilers, 8/12/1992.
8. State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990, USEPA.
12. USEPA, Memorandum Subject: De Minimis Values for NOx RACT, from G.T. Helms, Ozone Policy and Strategies Group, dated 1/1/1995.
14. USEPA, Memorandum Subject: Nitrogen Oxides (NOx) Questions from Ohio EPA, Tom Helms, Chief Ozone/Carbon Monoxide Programs Branch, (no date cited, references 11/30/1993 questions).
15. USEPA, NOx Emissions from Stationary Internal Combustion Engines, October 2003.
17. USEPA, Summary of State/Local NOx Regulations for Stationary Sources, 2004.
5.0 APPENDICES
Appendix A: RACT/BACT Clearinghouse Data Sheets

EPA INFORMATION ON INDUSTRIAL/COMMERCIAL/INSTITUTIONAL BOILERS & PROCESS HEATERS 100-250 MMBtu/hr

Regulation Details
ID/Regulation Name & Industry Sector: RUS-0248 INDUS./COMMER./INSTIT. BOILERS & PROCESS HEATERS

SIC: SEE NOTE  
Basis: MACT  
State: US  
U.S. EPA Region: 0  
Regulation Status: IN EFFECT  
Entry Date: 02/18/2003  
Last Update Date: 06/27/2005  
Agency: OT002 EPA REGION I  
Agency Contact: 1 Phone: (919) 541-0800

CFR Citation/Regulation No.: 40 CFR PART 63 SUBPART DDDDD

BID Ref.:  
BID Title: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS, SUMMARY OF PUBLIC COMMENTS AND RESPONSES

On-Line Location of Regulation:

Regulation Effective Date Regulation Effective Legal Ref.

Tech Support Doc. Date: / /  
Economic Analysis Date: / /  
Risk Analysis Date: / /  
Public Notice Date: / /  
Regulation Propose Date: 01/13/2003 68 FR 1660  
Promulgation Date: 09/13/2004 69 FR 55218  
Regulation Effective Date:
RACT EPA INFORMATION FOR RECIPROCATING INTERNAL COMBUSTION ENGINES

Regulation Details
ID/Regulation Name & Industry Sector: RUS-0241 RECIPROCATING INTERNAL COMBUSTION ENGINES

SIC: 4911  Basis: MACT
State: US  U.S. EPA Region: 0
Regulation Status: IN EFFECT  Last Update Date: 06/23/2005
Entry Date: 12/20/2002  Agency: OT002 EPA REGION I
Agency Contact: 1 Phone: (919) 541-0800

CFR Citation/Regulation No.: 40 CFR PART 63 SUBPART ZZZZ

BID Ref.:  
BID Title:  
NATIONAL EMISSION STANDARDS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES, SUMMARY OF PUBLIC COMMENTS AND RESPONSES

On-Line Location of Regulation:

<table>
<thead>
<tr>
<th>Regulation Effective Date</th>
<th>Regulation Effective Legal Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech Support Doc. Date: / /</td>
<td>Regulation Propose Date: 12/19/2002 67 FR 77830</td>
</tr>
<tr>
<td>Economic Analysis Date: 11/01/02</td>
<td>Promulgation Date: 06/15/2004 69 FR 33474</td>
</tr>
<tr>
<td>Risk Analysis Date: / /</td>
<td>Regulation Effective Date:</td>
</tr>
<tr>
<td>Public Notice Date: / /</td>
<td></td>
</tr>
<tr>
<td>Hearing? No</td>
<td></td>
</tr>
</tbody>
</table>
## Process Details

Regulation Name/Industry Sector: LARGE MUNICIPAL WASTE COMBUSTORS (MWC)
RBLC ID: RUS-0189
Process Name/Description: MWC, MASS BURN WATERWALL AND REFRACTORY, EXISTING

<table>
<thead>
<tr>
<th>Throughput / Throughput Unit:</th>
<th>250 T/D (SEE PROCESS NOTE)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Primary Emission Limit</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>205 PPMV @ 7% OXYGEN</td>
<td>FIPMACT</td>
</tr>
</tbody>
</table>

**Process Notes:**

THE FED. PLAN APPLIES TO EXISTING MWC UNIT W/CAPACITIES TO COMBUSTS > 250T/D OF MSW UNLESS THE UNIT IS SUBJECT TO A SECTION 111(D)/129 STATE PLAN THAT AHS BEEN APPROVED BY EPA AND IS CURRENTLY EFFECTIVE. MASS BURN WATERW. IS A FIELD-ERECTED UNIT COMBUSTS MSW IN A WATERWALL FURN. MASS BURN REFRACTOR. IS A FIELD-EREC. UNIT COMB. MSW IN A REFRACTOR. WALL F.
RACT EPA INFORMATION ON GAS FIRED 10-100 MMBtu/hr BOILERS

Regulation Details
ID/Regulation Name & Industry Sector: RUS-0070 SMALL INDUS-COMMER-INSTITU STEAM GEN UNITS

SIC: 3569 Basis: NSPS
State: US U.S. EPA Region: 0
Regulation Status: IN EFFECT Last Update Date: 06/14/2006
Entry Date: 06/22/1994
Agency: OT002 EPA REGION I
Agency Contact: 1 Phone: (919) 541-0800

CFR Citation/Regulation No.: 40 CFR PART 60 SUBPART DC

BID Ref.:
BID Title:
On-Line Location of Regulation:
Regulation Effective Date Regulation Effective Legal Ref.:
Tech Support Doc. Date: / / Regulation Propose Date: 06/09/1989
Economic Analysis Date: / / Promulgation Date: 09/12/1990 55 FR 37683
Risk Analysis Date: / / Regulation Effective Date:
Public Notice Date: / /
Hearing? Yes

40 CFR Part 60 Subpart Dc - Small Industrial-Commercial Institutional Steam Generating Units between 10 and 100 MMBtu/hr for which construction is commenced after 6/9/89. Amended 5/8/1996 (61 FR 20736) to exempt boilers during periods of combustion research. Amended 2/12/1999 (64 FR 7465) to reduce reporting/recordkeeping burden.
RACT EPA INFORMATION ON BOILERS GREATER THAN 250 MMBtu/hr

Regulation Details
ID/Regulation Name & Industry Sector: RUS-0251 COAL- OR OIL-FIRED ELEC. UTILITY STEAM GEN. UNITS

SIC: 4911 Basis: NESHAP
State: US U.S. EPA Region: 0
Regulation Status: PROPOSED
Entry Date: 03/03/2004 Last Update Date: 01/11/2005
Agency: OT002 EPA REGION I
Agency Contact: 1 Phone: (919) 541-0800

CFR Citation/Regulation No.: 40 CFR PART 63 SUBPART UUUUU

BID Ref.: 
BID Title: NO BID IS SPECIFIED.

On-Line Location of Regulation:

| Tech Support Doc. Date: 02/27/2004 | Regulation Propose Date: 01/30/2004 69 FR 4665 |
| Economic Analysis Date: 01/28/2004 | Promulgation Date: |
| Risk Analysis Date: / / | Regulation Effective Date: |
| Public Notice Date: 02/02/2004 | |
| Hearing? Yes | |
# RACT EPA INFORMATION ON LARGE HOSPITAL MEDICAL WASTE INCINERATORS

## Process Details
Regulation Name/Industry Sector: HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS
RBLC ID: RUS-0190
Process Name/Description: HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINE., LARGE

<table>
<thead>
<tr>
<th>Throughput / Throughput Unit:</th>
<th>500 LB/H (SEE PROC NOTE)</th>
<th>Pollutant List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Type Codes:</td>
<td>21.300</td>
<td>Pollutant</td>
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<tr>
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Process Notes: HMIWI W/MAX DESIGN WASTE BURNING CAPACITY >50 LB/H; OR CONTINUOUS OR INTERMITTENT HMIWI W/MAX CHARGE RATE >500 LB/H; OR BATCH HMIWI W/MAX CHARGE RATE >4,000 LB/D ARE SUBJECT TO THIS SUBPART. GOOD COMBUSTION PRACTICE (GCP) IS REQUIRED.
## Appendix B: Major Sources of NOx in Maryland and Applicable RACT Regulations

<table>
<thead>
<tr>
<th>Premises ID</th>
<th>Agency Interest</th>
<th>Facility type</th>
<th>Example Applicable NOx RACT</th>
<th>NOx (tpy)</th>
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<tbody>
<tr>
<td>001-0203</td>
<td>AES Warrior Run Inc</td>
<td>Electric cogeneration plant-fuel burning equipment</td>
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<td>003-0247</td>
<td>Northrop Grumman Systems Corp</td>
<td>Electronic systems manufacturing plant</td>
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<td>003-0310</td>
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<td>U.S. naval academy</td>
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<td>003-0316</td>
<td>US Coast Guard Yard (USCG Yard)</td>
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<td>003-0317</td>
<td>National Security Agency</td>
<td>Metal reclamation furnaces &amp; fuel burning (oil-fired) equipment</td>
<td>COMAR 26.11.09.08</td>
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<td>003-0322</td>
<td>Fort George G. Meade, Dept. of the Army</td>
<td>Federal military facility w/ boilers-generators-other equip</td>
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<td>003-1471</td>
<td>Millersville Landfill Gas to Electric Project</td>
<td>Landfill gas-to-energy</td>
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<td>005-0002</td>
<td>University Of Maryland - Baltimore County</td>
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<td>13.39</td>
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<td>005-0039</td>
<td>Greater Baltimore Medical Center</td>
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<td>005-0076</td>
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<td>005-0078</td>
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<td>005-0079</td>
<td>C P Crane Generating Station</td>
<td>Electric generating station-fuel burning (oil/coal) equipment</td>
<td>COMAR 26.11.09.08 &amp; 26.11.38-EPA SIP approved version</td>
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<td>005-0812</td>
<td>Back River WWTP</td>
<td>Municipal wastewater treatment plant</td>
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<td>005-2322</td>
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<td>NOx Emission (t/yr)</td>
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<td>005-2581</td>
<td>Eastern Landfill Gas, LLC</td>
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<td>005-2589</td>
<td>Fritz Enterprises, Inc.</td>
<td>Scrap metal sales - hammermill, conveyer/feeders and slag plant</td>
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<td>009-0012</td>
<td>Calvert Cliffs Nuclear Power Plant, LLC</td>
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<td>009-0021</td>
<td>Dominion Cove Point LNG, LP</td>
<td>Liquefied natural gas facility</td>
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<td>36.37</td>
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<td>013-0110</td>
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<td>Asphalt paving contractor</td>
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<td>013-0012</td>
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<td>Harvest RGI, LLC</td>
<td>Natural gas fired electric generating station</td>
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<td>015-0202</td>
<td>Rock Springs Generation Facility</td>
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<td>017-0014</td>
<td>NRG Morgantown Generating Station</td>
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<td>017-0040</td>
<td>Naval Support Facility Indian Head</td>
<td>Fuel burning (no.6 oil/coal) equipment/420 gallon mixer facility</td>
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<td>Asphalt plant</td>
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<td>019-0013</td>
<td>Vienna Power Station</td>
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<td>Valley Protein</td>
<td>Poultry rendering plant</td>
<td>NOx SM 100 tpy</td>
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<td>Redland Brick, Inc. - Rocky Ridge</td>
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<td>021-0131</td>
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<td>021-0444</td>
<td>Frederick National Laboratory for Cancer Research</td>
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<td>021-0599</td>
<td>Fannie Mae UTC Data Center</td>
<td>Ten diesel generator sets (9-0192 thru 9-0201)</td>
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<td>021-0623</td>
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<td>Mettiki Coal, LLC</td>
<td>Thermal coal dryer</td>
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<td>023-0081</td>
<td>Texas Eastern Transmission-3223</td>
<td>Natural gas pipeline compression station</td>
<td>COMAR 26.11.29 (excluding 26.11.29.04B(1)(b))</td>
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<td>Constellation Power - Perryman Generating Station-3946</td>
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<td>025-0081</td>
<td>APG-Aberdeen Area-26474</td>
<td>Military facility with fuel burning &amp; misc equipment</td>
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<td>025-0082</td>
<td>APG-Edgewood Area-20603</td>
<td>Military facility with fuel burning &amp; misc equipment</td>
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<td>Upper Chesapeake Medical Center-26625</td>
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<td>027-0052</td>
<td>MD &amp; VA Milk Producers Coop- 112589</td>
<td>Milk spray drying process</td>
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<td>027-0223</td>
<td>Transcontinental Gas Pipe Line - Ellicott City-5546</td>
<td>Interstate natural gas transmission facility</td>
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<td>027-0535</td>
<td>Allan Myers Materials-Jessup Asphalt-26922</td>
<td>Hot mix asphalt crushing and screening plant</td>
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<td>027-0612</td>
<td>Laurel Sand &amp; Gravel, Inc.-84093</td>
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<td>Eastman Specialties Corporation-2107</td>
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<td>Electric generating station-fuel burning (oil/coal) equipment</td>
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<td>031-0323</td>
<td>National Institute of Standards and Technology-13355</td>
<td>Federal facility with fuel burning equipment</td>
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<td>031-0324</td>
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<td>Biomedical Research – Fuel Burning Equipment</td>
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<td>Veterinary medicine research</td>
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<td>031-1129</td>
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<td>Government services</td>
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<td>031-1505</td>
<td>Verizon Maryland Inc., Chesapeake Complex</td>
<td>Emergency power/peaking station</td>
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<tr>
<td>031-1718</td>
<td>Montgomery Co. Resource Recovery Facility (MCRF)</td>
<td>Municipal waste combustor / resource recovery facility (2-0132)</td>
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<td>031-1723</td>
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<td>031-1875</td>
<td>IBM Corporation</td>
<td>Emergency diesel generators</td>
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<td>Washington Gas - Rockville Station</td>
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<td>Aggregate Industries - Kirby Road Asphalt Plant</td>
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<td>033-0010</td>
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<td>Cogeneration central steam plant</td>
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<td>033-0655</td>
<td>Andrews Air Force Base</td>
<td>Boilers / diesel generators / paint booth / fuel storage &amp; dispensing</td>
<td>COMAR 26.11.09.08</td>
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<td>033-0675</td>
<td>NASA Goddard Space Flight Center</td>
<td>Laboratory research facility w/fuel burning &amp; process equipment</td>
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<td>033-0883</td>
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<td>U.S. Army Research Laboratory</td>
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<td>033-2200</td>
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<td>Naval Air Station Patuxent River</td>
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<td>039-0055</td>
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<td>Co-generation plant, woodchip-fired boilers, wwtp</td>
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<td>039-0062</td>
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<td>043-0006</td>
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<td>043-0008</td>
<td>Holcim (US), Inc</td>
<td>Portland cement manufacturing</td>
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<td>Maryland Correctional Institution - Hagerstown</td>
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<td>045-0042</td>
<td>Perdue AgriBusiness</td>
<td>Vegetable oil refining</td>
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<td>045-0287</td>
<td>Ingenco Wicomico Plant</td>
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<td>047-0044</td>
<td>Berlin Town Power Plant</td>
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<td>Johns Hopkins Hospital</td>
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<td>Constellation Power - Westport</td>
<td>Electric generating station-fuel burning (nat. Gas) equipment</td>
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<td>Constellation Power - Gould Street Station</td>
<td>Electric generating station-fuel burning (nat. Gas) equipment</td>
<td>COMAR 26.11.09.08</td>
<td></td>
</tr>
<tr>
<td>510-0076</td>
<td>W. R. Grace &amp; Co. - Grace Davison - Curtis Bay</td>
<td>Silica, alumina based inorganic chemicals manufacturing</td>
<td>COMAR 26.11.09.08</td>
<td></td>
</tr>
<tr>
<td>510-0077</td>
<td>Johns Hopkins University - Charles Street</td>
<td>Fuel burning equipment</td>
<td>COMAR 26.11.09.08</td>
<td></td>
</tr>
<tr>
<td>510-0088</td>
<td>University of MD Medical Center Midtown Campus</td>
<td>Fuel Burning Equipment</td>
<td>NOX SM 25 tpy</td>
<td></td>
</tr>
<tr>
<td>510-0121</td>
<td>RELP Holabird, LLC</td>
<td>Soap and detergent production plant</td>
<td>COMAR 26.11.09.08</td>
<td></td>
</tr>
<tr>
<td>005-0167</td>
<td>Bluegrass Materials Company, LLC - Marriottsville Quarry</td>
<td>Limestone crushing and screening plant</td>
<td>NOX SM 25 tpy</td>
<td></td>
</tr>
<tr>
<td>510-0233</td>
<td>National Gypsum Company</td>
<td>Gypsum board manufacturer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 510-0265 | Constellation Energy Group - Philadelphia Road | Electric generating station-fuel burning (oil) equipment | COMAR 26.11.09.08 | 66.34  
| 005-0282 | Social Security Administration | Fuel burning equipment | COMAR 26.11.09.08 | 11.30  
| 510-0314 | American Sugar Refining, Inc. | Fuel burning oil | COMAR 26.11.09.08 | 49.57  
| 510-0651 | Veolia Energy Baltimore Heating, LLP-Central Ave | Steam generating | COMAR 26.11.09.08 | 51.50  
| 510-0660 | Veolia Energy Baltimore Heating, LLP-Cherry Hill | Fuel burning (natural gas fired) equipment | COMAR 26.11.09.08 | 1.09  
| 510-1045 | Morgan State University | Fuel burning (oil-fired) | COMAR 26.11.09.08 | 3.62  
| 510-1158 | Johns Hopkins Bayview Medical Center | Fuel burning (oil-fired) | COMAR 26.11.09.08 | 12.25  
| 510-1665 | Philadelphia Quartz Corp | Sodium silicate glass manufacturing plant | COMAR 26.11.09.08 | 75.64  
| 510-1886 | Wheelabrator Baltimore, LP | Municipal waste combuster (rated at 1500 tpd) | COMAR 26.11.08.08 | 1,141.25  
| 510-2796 | Veolia Energy Baltimore Heating, LLP-Spring Gardens Plant | Fuel burning (oil-fired) equipment | COMAR 26.11.09.08 | 78.72  
| 510-2975 | Curtis Bay Energy, LP | Medical waste (regional) combustor | COMAR 26.11.08.08-2 | 39.60  
| 510-3237 | Trigen Energy - Inner Harbor East | Fuel burning (natural gas) equipment | COMAR 26.11.09.08 | 1.42  
| 510-3406 | NIH Bayview Acquisition, LLC | Medical laboratory, offices, library | NOX SM 25 tpy | 11.39  

Maryland 75 ppb NOx RACT SIP
Appendix C: COMAR 26.11.38 (EPA Approved Version)
.01 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) “Affected electric generating unit” means any one of the following coal-fired electric generating units:

(a) Brandon Shores Units 1 and 2;
(b) C.P. Crane Units 1 and 2;
(c) Chalk Point Units 1 and 2;
(d) Dickerson Units 1, 2, and 3;
(e) H.A. Wagner Units 2 and 3;
(f) Morgantown Units 1 and 2; and
(g) Warrior Run.

(2) “Operating day” means a 24-hour period beginning midnight of one day and ending the following midnight, or an alternative 24-hour period approved by the Department, during which time an installation is operating, consuming fuel, or causing emissions.

(3) “Ozone season” means the period beginning May 1 of any given year and ending September 30 of the same year.

(4) System.

(a) “System” means all affected electric generating units within the State of Maryland subject to this chapter that are owned, operated, or controlled by the same person and are located:

(i) In the same ozone nonattainment area as specified in 40 CFR Part 81; or
(ii) Outside any designated ozone nonattainment area as specified in 40 CFR Part 81.

(b) “System” includes at least two affected electric generating units.

(5) “System operating day” means any day in which an electric generating unit in a system operates.

(6) "30-day systemwide rolling average emission rate" means a value in lbs/MMBtu calculated by:

(a) Summing the total pounds of pollutant emitted from the system during the current system operating day and the previous 29 system operating days;
(b) Summing the total heat input to the system in MM Btu during the current system operating day and the previous 29 system operating days; and COMAR Final text Effective 8/31/15

(c) Dividing the total number of pounds of pollutant emitted during the 30 system operating days by the total heat input during the 30 system operating days.

(7) "24-hour block average emission rate" means a value in lbs/MBtu calculated by:

(a) Summing the total pounds of pollutant emitted from the unit during 24 hours between midnight of one day and ending the following midnight;

(b) Summing the total heat input to the unit in MMBtu during 24 hours between midnight of one day and ending the following midnight; and

(c) Dividing the total number of pounds of pollutant emitted during 24 hours between midnight of one day and ending the following midnight by the total heat input during 24 hours between midnight of one day and ending the following midnight.

.02 Applicability.

The provisions of this chapter apply to an affected electric generating unit as that term is defined in Regulation .01B of this chapter.

.03 2015 NOx Emission Control Requirements.

A. Daily NOx Reduction Requirements During the Ozone Season.

(1) Not later than 45 days after the effective date of this regulation, the owner or operator of an affected electric generating unit (the unit) shall submit a plan to the Department and EPA for approval that demonstrates how each affected electric generating unit will operate installed pollution control technology and combustion controls to meet the requirements of §A(2) of this regulation. The plan shall summarize the data that will be collected to demonstrate compliance with §A(2) of this regulation. The plan shall cover all modes of operation, including but not limited to normal operations, start-up, shut-down, and low load operations.

(2) Beginning on May 1, 2015, for each operating day during the ozone season, the owner or operator of an affected electric generating unit shall minimize NOx emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers' specifications, good engineering, and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 CFR §60.11(d)) for such equipment and the unit at all times the unit is in operation while burning any coal.

B. Ozone Season NOx Reduction Requirements.

(1) Except as provided in §8(3) of this regulation, the owner or operator of an affected electric generating unit shall not exceed a NOx 30-day systemwide rolling average emission rate of 0.15 lbs/MBtu during the ozone season.

(2) The owner or operator of an affected electric generating unit subject to the provisions of this regulation shall continue to meet the ozone season NOx reduction requirements in COMAR 26.11.27.

(3) Ownership of Single Electric Generating Facility.
(a) An affected electric generating unit is not subject to §8(1) of this regulation if the unit is located at an electric generating facility that is the only facility in Maryland directly or indirectly owned, operated, or controlled by the owner, operator, or controller of the facility.

(b) For the purposes of this subsection, the owner includes parent companies, affiliates, and subsidiaries of the owner.

C. Annual NOx Reduction Requirements. The owner or operator of an affected electric generating unit subject to the provisions of this regulation shall continue to meet the annual NOx reduction requirements in COMAR 26.11.27.

D. NOx Emission Requirements for Affected Electric Generating Units Equipped with Fluidized Bed Combustors. COMAR Final text Effective 8/31/15

(1) The owner or operator of an affected electric generating unit equipped with a fluidized bed combustor is not subject to the requirements of §§A, 8(1) and (2), and C of this regulation.

(2) The owner or operator of an affected electric generating unit equipped with a fluidized bed combustor shall not exceed a NOx24-hour block average emission rate of 0.10 lbs/MMBtu.

.04 Compliance Demonstration Requirements.

A. Procedures for Demonstrating Compliance with Regulation .03A of this Chapter.

(1) An affected electric generating unit shall demonstrate, to the Department’s satisfaction, compliance with Regulation .03A(2) of this chapter, using the information collected and maintained in accordance with Regulation .03A(1) of this chapter and any additional documentation available to and maintained by the affected electric generating unit.

(2) An affected electric generating unit shall not be required to submit a unit-specific report consistent with §A(3) of this regulation when the unit emits at levels that are at or below the following rates:

<table>
<thead>
<tr>
<th>Affected Unit</th>
<th>24-Hour Block Average NOx Emissions in lbs/MMBtu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandon Shores</td>
<td></td>
</tr>
<tr>
<td>Unit 1</td>
<td>0.08</td>
</tr>
<tr>
<td>Unit 2</td>
<td></td>
</tr>
<tr>
<td>&lt;650 MWg</td>
<td>0.07</td>
</tr>
<tr>
<td>≥650 MWg</td>
<td>0.15</td>
</tr>
<tr>
<td>C.P. Crane</td>
<td></td>
</tr>
<tr>
<td>Unit 1</td>
<td>0.30</td>
</tr>
<tr>
<td>Unit 2</td>
<td>0.28</td>
</tr>
<tr>
<td>Chalk Point</td>
<td></td>
</tr>
<tr>
<td>Unit 1 only</td>
<td>0.07</td>
</tr>
<tr>
<td>Unit 2 only</td>
<td>0.33</td>
</tr>
<tr>
<td>Units 1 and 2 combined</td>
<td>0.20</td>
</tr>
</tbody>
</table>
### Dickerson

<table>
<thead>
<tr>
<th>Unit</th>
<th>NOx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1 only</td>
<td>0.24</td>
</tr>
<tr>
<td>Unit 2 only</td>
<td>0.24</td>
</tr>
<tr>
<td>Unit 3 only</td>
<td>0.24</td>
</tr>
<tr>
<td>Two or more units combined</td>
<td>0.24</td>
</tr>
</tbody>
</table>

### H.A. Wagner

<table>
<thead>
<tr>
<th>Unit</th>
<th>NOx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 2</td>
<td>0.34</td>
</tr>
<tr>
<td>Unit 3</td>
<td>0.07</td>
</tr>
</tbody>
</table>

### Morgantown

<table>
<thead>
<tr>
<th>Unit</th>
<th>NOx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>0.07</td>
</tr>
<tr>
<td>Unit 2</td>
<td>0.07</td>
</tr>
</tbody>
</table>

(3) The owner or operator of an affected electric generating unit subject to Regulation .03A(2) of this chapter shall submit a unit-specific report for each day the unit exceeds its NOx emission rate under §A(2) of this regulation, which shall include the following information for the entire operating day:

(a) Hours of operation for the unit;

(b) Hourly averages of operating temperature of installed pollution control technology;

(c) Hourly averages of heat input (MMBtu/hr);

(d) Hourly averages of output (MWh);

(e) Hourly averages of ammonia or urea flow rates;

(f) Hourly averages of NOx emissions data (lbs/MMBtu and tons);

(g) Malfunction data;

(h) The technical and operational reason the rate was exceeded, such as:

(i) Operator error;

(ii) Technical events beyond the control of the owner or operator (e.g. acts of God, malfunctions); or

(iii) Dispatch requirements that mandate unplanned operation (e.g. start-ups and shut-downs, idling, and operation at low voltage or low load);

(i) A written narrative describing any actions taken to reduce emission rates; and

(j) Other information that the Department determines is necessary to evaluate the data or to ensure that compliance is achieved.

(4) An exceedance of the emissions rate under §A(2) of this regulation as a result of factors including but not limited to start-up, shut-down, days when the unit was directed by the electric grid operator to operate
at low load or to operate pursuant to any emergency generation operations required by the electric grid operator, including necessary testing for such emergency operations, or which otherwise occurred during operations which are deemed consistent with the unit’s technological limitations, manufacturers’ specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions, shall not be considered a violation of Regulation .03A(2) of this chapter provided that the provisions of the approved plan as required in Regulation .03A(1) of this chapter are met.

B. Procedures for Demonstrating Compliance with NO\textsubscript{x} Emission Rates under this Chapter.

(1) Compliance with the NO\textsubscript{x} emission rate limitations in Regulations .03B(1) and D(2) and .04A(2) of this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75.

(2) For Regulations .03B(1) of this chapter, in order to calculate the 30-day systemwide rolling average emission rates, if 29 system operating days are not available from the current ozone season, system operating days from the previous ozone season shall be used.

.05 Reporting Requirements.

A. Reporting Schedule.

(1) Beginning 30 days after the first month of the ozone season following the effective date of this chapter, each affected electric generating unit subject to the requirements of this chapter shall submit a monthly report to the Department detailing the status of compliance with this chapter during the ozone season.

(2) Each subsequent monthly report shall be submitted to the Department not later than 30 days following the end of the calendar month during the ozone season.

B. Monthly Reports During Ozone Season. Monthly reports during the ozone season shall include:

(1) Daily pass or fail of the NO\textsubscript{x} emission rates under Regulation .04A(2) of this chapter;

(2) The reporting information as required under Regulation .04A(3) of this chapter;

(3) The 30-day systemwide rolling average emission rate for each affected electric generating unit to demonstrate compliance with Regulation .03B(1) of this chapter;
Appendix D: COMAR 26.11.08.08-2 HMIWI REGULATION
Title 26 DEPARTMENT OF THE ENVIRONMENT
Subtitle 11 AIR QUALITY
Chapter 08 Control of Incinerators


.01 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) Bag Leak Detection System.

(a) “Bag leak detection system” means an instrument that is capable of monitoring PM loadings in the exhaust of a fabric filter in order to detect bag failures.

(b) “Bag leak detection system” includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light-transmittance, or other effects to monitor relative PM loadings.

(1-1) "Batch HMIWI" means an HMIWI that is designed so that neither waste charging nor ash removal can occur during combustion.

(5) "Bypass stack" means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(7-1) “Commercial HMIWI” means a HMIWI which offers incineration services for hospital/medical/infectious waste generated off site by firms unrelated to the firm that owns the HMIWI.

(8) "Continuous emission monitoring (CEMS)" means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.
(16) "High-air phase" means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

(17) "Hospital" is defined at 40 CFR §60.51c.

(18) "Hospital, medical and infectious waste incinerator (HMIWI)" means a special medical waste incinerator that combusts any amount of hospital, medical, and infectious waste.

(19) Hospital waste.

(a) "Hospital waste" means discards generated at a hospital, except unused items returned to the manufacturer.

(b) "Hospital waste" does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(20) Incinerator.

(a) "Incinerator" means a furnace or combustion unit that uses controlled flame combustion for the thermal destruction of municipal solid waste, industrial waste, special medical waste, or sewage sludge.

(b) "Incinerator" does not mean a hazardous waste incinerator.
(c) “Incinerator” does not mean any unit owned or operated by a government agency to destroy illegal or prohibited goods. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(21) "Incinerator operator" means:

(a) For a municipal waste combustor (MWC), the facility manager (chief facility operator), shift foreman (supervisor), and incinerator control room personnel;

(b) For any other incinerator, the person who controls the waste feed and performs the necessary equipment adjustments to ensure efficient performance.

(24) "Intermittent HMIWI" means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

(25) Large HMIWI.

(a) "Large HMIWI" means:

(i) an HMIWI that has a maximum design waste burning capacity of more than 500 pounds per hour;

(ii) A continuous or intermittent HMIWI that has a maximum charge rate of more than 500 pounds per hour; or

(iii) A batch HMIWI that has a maximum charge rate of more than 4,000 pounds per day.

(b) "Large HMIWI" does not mean:

(i) A continuous or intermittent HMIWI that has a maximum charge rate of less than or equal to 500 pounds per hour; or

(ii) A batch HMIWI that has a maximum charge rate of less than or equal to 4,000 pounds per day.
(29) "Maximum charge rate" means:

(a) For a continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits; or

(b) For a batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(30) "Maximum design waste burning capacity" means:

(a) For an intermittent and continuous HMIWI, the waste burning capacity as determined by the following formula:

\[ C = \frac{PV \times 15,000}{8,500} \]

(i) \( C \) = HMIWI capacity, pounds/hour

(ii) \( PV \) = primary chamber volume, cubic feet

(iii) 15,000 = primary chamber heat release rate factor, Btu/cubic foot/hour

(iv) 8,500 = standard waste heating value, Btu/pound;

(b) For a batch HMIWI, the waste burning capacity as determined by the following formula: \( C = \frac{PV \times 4.5}{8} \)

(i) \( C \) = HMIWI capacity, pounds/hour

(ii) \( PV \) = primary chamber volume, cubic feet

(iii) 4.5 = waste density, pounds/cubic foot

(iv) 8 = typical hours of operation of a batch HMIWI, hours.

(33) "Medical, infectious waste" is defined at 40 CFR Part 60.51c, Subpart Ec.

(34) Medium HMIWI.

(a) "Medium HMIWI" means:

(i) An HMIWI that has a maximum design waste burning capacity of more than 200 pounds per hour, but less than or equal to 500 pounds per hour;

(ii) A continuous or intermittent HMIWI that has a maximum charge rate more than 200 pounds per hour, but less than or equal to 500 pounds per hour; or
(iii) A batch HMIWI that has a maximum charge rate more than 1,600 pounds per day, but less than or equal to 4,000 pounds per day.

(b) "Medium HMIWI" does not mean:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour or more than 500 pounds per hour; or

(ii) A batch HMIWI that has a maximum charge rate more than 4,000 pounds per day or less than or equal to 1,600 pounds per day.

(35) "Minimum dioxin/furan sorbent flow rate" means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(36) "Minimum Hg sorbent flow rate" means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

(37) "Minimum hydrogen chloride (HCl) sorbent flow rate" means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(38) "Minimum horsepower or amperage" means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

(39) "Minimum pressure drop across the wet scrubber" means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

(40) "Minimum reagent flow rate" means 90 percent of the highest 3-hour average reagent flow rate at the inlet to the selective noncatalytic reduction technology (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the NOx emissions limit.

(41) "Minimum scrubber liquor flow rate" means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(42) "Minimum scrubber liquor pH" means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(43) "Modification or modified HMIWI" is defined at 40 CFR §60.51c.

(44) Municipal Solid Waste.

(a) "Municipal solid waste (MSW)" means municipal-type solid waste as defined in 40 CFR Part 60, Subpart Eb (Standards of Performance for Municipal Waste Combustors) as amended, which is incorporated by reference.
(46) "Operating day" means a 24-hour period between 12 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

(47) "Operation" means the period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

(50) "Primary chamber" means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

(52) "Secondary chamber" means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

(54) Shutdown.

(a) "Shutdown" means the period of time after all waste has been combusted in the primary chamber.

(b) "Shutdown" for a continuous HMIWI commences not less than 2 hours after the last charge to the incinerator.

(c) "Shutdown" for an intermittent HMIWI commences not less than 4 hours after the last charge to the incinerator.

(d) "Shutdown" for a batch HMIWI commences not less than 5 hours after the high-air phase of combustion has been completed.

(55) Small HMIWI.

(a) "Small HMIWI" means:

(i) An HMIWI that has a maximum design waste burning capacity less than or equal to 200 pounds per hour;

(ii) A continuous or intermittent HMIWI that has a maximum charge rate less than or equal to 200 pounds per hour; or

(iii) A batch HMIWI that has a maximum charge rate less than or equal to 1,600 pounds per day.
(b) "Small HMIWI" does not mean:

(i) A continuous or intermittent HMIWI that has a maximum charge rate more than 200 pounds per hour; or

(ii) A batch HMIWI that has a maximum charge rate more than 1,600 pounds per day.

(56) "Small rural area HMIWI" means a small HMIWI that is located more than 50 miles from the boundary of the nearest standard metropolitan statistical area and which burns less than 2,000 pounds per week of hospital, medical, and infectious waste (excluding those wastes burned during performance tests).

(57) Special medical waste.

(a) "Special medical waste" means:

(i) Any combination of organic and inorganic liquid or solid waste as defined in COMAR 26.13.11; or

(ii) Hospital general waste, when burned in conjunction with special medical waste generated at that hospital.

(b) "Special medical waste" includes hospital, medical, and infectious waste.

(59) "Standard metropolitan statistical area (SMSA)" means any area listed in OMB Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993.

(60) Startup.

(a) "Startup" means the period of time between the activation of the system and the first charge to the unit.

(b) "Startup" for a batch HMIWI means the period of time between activation of the system and ignition of the waste.

.02 Applicability.

A. Any source which is subject to the provisions of this chapter is also subject to the provisions of any other chapter. However, when this chapter establishes an emission standard for a specific installation which differs from the general emission standards in COMAR 26.11.06.01—.09, this chapter takes precedence.
.03 Prohibition of Certain Incinerators in Areas III and IV.

A. A person may not cause or permit the construction or use of any flue-fed, chute-fed, or single chamber incinerator.

B. Any incinerator, the use of which is prohibited under provisions of this regulation, shall be made inoperable in a manner approved by the control officer or the Department.

C. A person may not cause or permit the construction or use of any other incinerator except as listed below:

1. An incinerator that has a capacity of 5 tons (4,540 kilograms) per hour or greater and that is used to burn municipal solid waste;
2. Crematory incinerators;
3. An incinerator that has a capacity of 500 pounds (227 kilograms) per hour or greater and that is used to burn industrial waste;
4. Special medical waste incinerators that are approved for that purpose by the Department, although municipal solid waste generated at the site of a permitted special medical waste incinerator may be burned in combination with a special medical waste; and
5. Sewage sludge incinerators.

D. Householders are permitted to burn ordinary household trash originating on the premises, in incinerators, in those areas where public collection of municipal solid waste is not provided.

.04 Visible Emissions.
.05 Particulate Matter.
.06 Prohibition of Unapproved Hazardous Waste Incinerators.

.07 Requirements for Municipal Waste Combustors with a Capacity of 35 tons or greater per day and less than or equal to 250 Tons Per Day.

.08 Requirements for an Existing Large MWC with a Capacity Greater Than 250 Tons Per Day.

<table>
<thead>
<tr>
<th>Pollutant or Parameter</th>
<th>Emission Standards for a Large MWC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide*</td>
<td>100 ppmv - 4 hr block avg.</td>
</tr>
<tr>
<td>Dioxin/Furans*</td>
<td>Before April 28, 2009, 60 nanograms per dry standard cubic meter (total mass) for ESP-based control device and 30 nanograms per dry standard cubic meter (total mass) for non-ESP-based control device. On and after April 28, 2009, the emission limit for ESP-based control device is 35 nanograms per dry standard cubic meter and 30 nanograms per dry standard cubic meter for non-ESP-based emission control system.</td>
</tr>
</tbody>
</table>

EPA Reference Method 23. Annual test except as provided in 40 CFR §60.58b(g)(5)(iii). Applicable test procedures and methods as specified in 40 CFR §60.58b(g). Certified continuous automated sampling option in lieu of a stack test as specified in 40 CFR 60.58b(g)(10).
<table>
<thead>
<tr>
<th>Substance</th>
<th>Standard Before 2009</th>
<th>Standard After 2009</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter*</td>
<td>0.012 grains/SCFD</td>
<td>25 mg/dry SCM</td>
<td>EPA Reference Method 5. Annual test methods and procedures as specified in 40 CFR §60.58b(c). Certified CEMS option in lieu of a stack test for monitoring PM emissions discharged to the atmosphere as specified in 40 CFR §60.58b(c)(10).</td>
</tr>
<tr>
<td>Opacity</td>
<td>10% opacity with COMS</td>
<td>6 minutes</td>
<td>EPA Reference Method 9 and COMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(c). Quality assurance and quality control requirements are as in COMAR 26.11.31. Notwithstanding the requirements in COMAR 26.11.01.10B—(c), the Department may determine compliance and non-compliance with the visible emission limitations by performing EPA reference Method 9 observations based on a 6 minute block average.</td>
</tr>
<tr>
<td>Cd (Cadmium)*</td>
<td>40 micrograms</td>
<td>35 micrograms</td>
<td>EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d). Applicable test procedures and methods as specified in 40 CFR §60.58b(d). Certified CEMS option in lieu of a stack test as specified in 40 CFR §60.58b(d)(3) and §60.58(n).</td>
</tr>
<tr>
<td>Pb (Lead)*</td>
<td>440 micrograms</td>
<td>400 micrograms</td>
<td>EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d). Applicable test procedures and methods as specified in 40 CFR §60.58b(d). Certified CEMS option in lieu of a stack test as specified in 40 CFR §60.58b(d)(3) and §60.58(n).</td>
</tr>
<tr>
<td>Hg (Mercury)*</td>
<td>80 micrograms</td>
<td>50 micrograms</td>
<td>EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d) and (m). Applicable test procedures and methods as provided in 40 CFR §60.58b(d). Certified CEMS option in lieu of a stack test as specified in 40 CFR §60.58b(d)(4) and §60.58(n).</td>
</tr>
<tr>
<td>SO_2 Sulfur Dioxide</td>
<td>29 ppmv</td>
<td>75 percent reduction, whichever is less</td>
<td>CEMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(e).</td>
</tr>
<tr>
<td>HCl (Hydrogen Chloride)*</td>
<td>29 ppmv or 95 percent reduction, whichever is less restrictive</td>
<td>EPA Reference Method 26. Annual test except as provided in 40 CFR §60.58b(f). Applicable test procedures and methods as provided in 40 CFR §60.58b(f). Certified CEMS option in lieu of a stack test as specified in 40 CFR §60.58b(f)(8) and §60.58(n).</td>
<td></td>
</tr>
<tr>
<td>NOx Oxides of Nitrogen*</td>
<td>205 ppmv 12-hr arithmetic average</td>
<td>Mass burn refractory MWC is exempt. Mass burn refractory MWC is exempt. CEMS (only for sources to which an emission standard applies). Applicable test procedures and methods as provided in 40 CFR §60.58b(h). Continuous monitoring. Continuous monitoring. — 4-hr block arithmetic average steam load. Applicable test procedures and methods are as provided in 40 CFR §60.58b(i).</td>
<td></td>
</tr>
</tbody>
</table>

Load Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test. Continuous monitoring.
Temperature

The maximum particulate matter control device inlet temperature must not exceed by more than 17°C the temperature during the most recent dioxin/furan test demonstrating compliance.

Continuous monitoring. The temperature shall be calculated in 4-hour block arithmetic averages. Applicable test procedures and methods are as provided in 40 CFR §60.58b(i) and exemptions in 40 CFR §60.53b(c).

Fugitive Ash Emissions

Visible emissions less than 5 percent of the observation period (i.e., 9 minutes per 3-hour period) during ash transfer.

EPA Reference Method 22 observations as specified in 40 CFR §60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash conveying systems during maintenance and repair of ash conveying systems as specified in 40 CFR §60.55b.

* Corrected to 7 percent oxygen on dry basis. If a CO2 monitor is selected as the diluent monitor it must meet the requirements of 40CFR §60.58b(b)(6).

(3) The standards in §A(2) of this regulation apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a).

B. Monitoring Requirements.

(1) A person who owns or operates an existing MWC subject to this regulation shall:

(a) Install, calibrate, operate, and maintain continuous monitors for carbon monoxide, oxygen, opacity, oxides of nitrogen, and sulfur dioxide;

(b) Locate monitors downstream of the final air pollution control device to measure concentrations of oxygen, oxides of nitrogen, sulfur dioxide, and opacity of the exhaust gases;

(c) Install, operate, and maintain at a minimum, one temperature monitor to measure the temperature of the flue gas as it enters the particulate matter air pollution control device; and

(d) Meet the specifications in §A(2) of this regulation if an alternative monitoring or sampling method of compliance is selected in lieu of a stack test.

(2) If the percent removal option is to be used to show compliance with §B(1)(b) of this regulation, sulfur dioxide and oxygen monitors shall also be located upstream of the pollution control device. Monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide.

(3) The monitors required by §B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, and 26.11.01.11, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, all requirements in 40 CFR §60.58b, COMAR 26.11.31.

(4) A person shall apply for and receive written approval from the Department before installing any of the monitors required in this chapter.

C. Reporting and Record-Keeping Requirements.

(1) A person who owns an existing MWC subject to this regulation shall report and maintain records in accordance with 40 CFR §60.59b of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR Part 60, Subpart Eb;
(2) Continuous monitoring data reduction and data availability shall be as prescribed in COMAR 26.11.01.10 and 26.11.01.11. If there is any inconsistency between COMAR 26.11.01.10 and 26.11.01.11 and 40 CFR 60, the requirements of 40 CFR 60 govern.

D. Compliance Schedule and Date.

(1) A person who owns or operates an existing large MWC subject to this chapter shall comply with the standards in §A(2) of this regulation, according to the applicable schedule in §D(2).

(2) A person who owns or operates an existing large MWC subject to this chapter and is not planning an extensive emission control system upgrade shall submit a plan by October 1, 2007, to the Department that describes the increments of progress to be achieved as follows:

(a) Not later than December 1, 2007 — release purchase orders for initial testing and modifications;
(b) Not later than April 1, 2008 — begin modification and testing of control systems;
(c) Not later than September 1, 2008 — end modifications and debug system;
(d) Not later than December 1, 2008 — submit stack test protocol and test schedule; and
(e) On and after April 28, 2009 — achieve full compliance with the standards.

(3) A person who owns or operates an existing large MWC subject to this chapter and is planning an extensive emission control system upgrade shall submit a plan, containing an expeditious compliance schedule, for review and approval by the Department, that:

(a) Describes the control method to be used to achieve compliance with the applicable requirements;
(b) Includes a complete application for a permit to construct the control system and compliance schedule to the Department not later than September 1, 2008; and
(c) If approved, includes in the compliance schedule a schedule which is no less stringent than the increments of progress in §D(4) of this regulation.

(4) The following increments of progress shall be achieved if an extensive emission control system upgrade is planned:

(a) Not later than April 1, 2008 — complete control system and cost analysis;
(b) Not later than December 1, 2008 — release purchase orders for the purchase of primary components;
(c) Not later than April 1, 2009 — begin construction of control systems;
(d) Not later than September 1, 2010 — end construction, startup and debug system;
(e) Not later than December 1, 2010 — submit stack test protocol and test schedule; and
(f) Not later than March 10, 2011 — achieve full compliance.

(5) The interim dates in §D(2) and (4) of this regulation may be delayed upon approval by the Department and the U.S. EPA if the compliance dates of April 28, 2009, and March 10, 2011, are met.
.08-1 Emission Standards and Requirements for HMIWIs.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>115 (0.05)</td>
<td>69 (0.03)</td>
<td>34 (0.015)</td>
</tr>
<tr>
<td>Opacity (Areas III and IV no visible emissions)</td>
<td>6 minute block average percent</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
<td>125 (55) or 2.3 (1.0)</td>
<td>125 (55) or 2.3 (1.0)</td>
<td>125 (55) or 2.3 (1.0)</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume or percent reduction</td>
<td>100 or 93 percent</td>
<td>100 or 93 percent</td>
<td>100 or 93 percent</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction</td>
<td>1.2 (0.52) or 70 percent</td>
<td>1.2 (0.52) or 70 percent</td>
<td>1.2 (0.52) or 70 percent</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction</td>
<td>0.16 (0.07) or 65 percent</td>
<td>0.16 (0.07) or 65 percent</td>
<td>0.16 (0.07) or 65 percent</td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction</td>
<td>0.55 (0.24) or 85 percent</td>
<td>0.55 (0.24) or 85 percent</td>
<td>0.55 (0.24) or 85 percent</td>
</tr>
</tbody>
</table>
Waste Management Plan. A person who owns or operates an HMIWI subject to this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid waste segregation or material substitution to reduce the amount of toxics emissions. The Waste Management Plan shall meet the requirements of 40 CFR Part 60.55c, Subpart Ec.

Compliance and Performance Testing. A person who owns or operates an HMIWI subject to this regulation shall complete the initial and subsequent tests using the procedures, conditions, and test methods in 40 CFR Part 60.56c, Subpart Ec, excluding the fugitive emissions testing requirements under 40 CFR §60.56c(b)(12) and (c)(3).

Monitoring Requirements. A person who owns or operates an HMIWI subject to this regulation shall comply with the monitoring requirements in 40 CFR Part 60.57c, Subpart Ec.

Reporting and Recordkeeping Requirements. A person who owns or operates an HMIWI subject to this regulation shall report and maintain records in accordance with the requirements listed in 40 CFR Part 60.58c(b), (c), (d), (e), and (f) of Subpart Ec, excluding 40 CFR §60.58c(b)(2)(ii) (fugitive emissions) and 40 CFR §60.58c(b)(7) (siting).

B. Emission Limits and Requirements for Small Rural Area HMIWIs.

(1) The emission limits and requirements in §B(2)–(6) of this regulation apply to a person who owns or operates a small rural area HMIWI, and remain applicable until such HMIWI comes into full and final compliance in accordance with Regulation 08–2 of this chapter and its related 111(d)/129 plan revision.

(2) Emission Limits.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>HMIWI Emission limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>197 (0.086)</td>
</tr>
<tr>
<td>Opacity</td>
<td>6 minute block average percent</td>
<td>10</td>
</tr>
<tr>
<td>CO</td>
<td>Parts per million by volume</td>
<td>40</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or Nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
<td>800 (350) or 15 (6.6)</td>
</tr>
<tr>
<td>HCl</td>
<td>Parts per million by volume</td>
<td>3,100</td>
</tr>
<tr>
<td>SO₂</td>
<td>Parts per million by volume</td>
<td>55</td>
</tr>
<tr>
<td>NOₓ</td>
<td>Parts per million by volume</td>
<td>250</td>
</tr>
<tr>
<td>Pb</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>10 (4.4)</td>
</tr>
<tr>
<td>Cd</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>4 (1.7)</td>
</tr>
<tr>
<td>Hg</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>7.5 (3.3)</td>
</tr>
</tbody>
</table>
(3) Inspection Requirements. 

(a) Each small rural area HMIWI shall undergo an initial equipment inspection by March 15, 2001, that at a minimum includes 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 lubricate 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; clean and repair or replace lining as necessary;

(viii) Inspect incinerator shell for corrosion or hot spots, or both;

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

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

(xi) Visually inspect waste bed (grates), and repair or seal, as appropriate;

(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 device or 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.

(b) Within 10 operating days following an equipment inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Department for a different date to complete all necessary repairs.

(c) Each small rural area HMIWI shall undergo an equipment inspection annually (no more than 12 months following the previous annual equipment inspection), as outlined in §B(3)(a) and (b) of this regulation.

(4) Waste Management Plan. A person who owns or operates a small rural area HMIWI subject to this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid
waste segregation
or material substitution to reduce the amount of toxics emissions. The Waste Management Plan shall meet the requirements of 40 CFR Part 60.55c, Subpart Ec.

(5) Compliance and Performance Testing.

(a) A person who owns or operates a small rural area HMIWI shall conduct the performance test in 40 CFR Part 60.56c(a), (b)(1) — (9), (b)(11)(Hg only), and (c)(1), Subpart Ec. The 2,000 pound per week limit does not apply during performance tests.

(b) During the test required in §B(5)(a) of this regulation, a maximum charge rate and minimum secondary chamber temperature shall be established as site-specific operating parameters to determine compliance with applicable emission limits as required in 40 CFR §60.37e(b)(2).

(c) Following the date on which the initial performance test is completed, a person may not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, and malfunction. 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 or parameters.

(d) Except as provided in §B(5)(e) of this regulation, operation of an HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(e) The owner or operator of an HMIWI may conduct a repeat performance test within 30 days of violation of applicable operating parameter or parameters to demonstrate that the HMIWI is not in violation of the applicable emission limit or limits. Repeat performance tests conducted pursuant to this regulation shall be conducted after notification to the Department using the identical operating parameters that indicated a violation as required in 40 CFR §60.37e(b)(5).

(6) Monitoring Requirements. A person who owns or operates a small rural area HMIWI shall meet the following monitoring requirements:

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

(c) 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 75 percent of the operating hours per day and for 90 percent of the operating hours per calendar quarter that the designated facility is combusting hospital waste or medical/infectious waste, or both.

(7) Reporting and Recordkeeping. A person who owns or operates a small rural area HMIWI shall:

(a) Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the time frame established by the Department; and

(b) Submit an annual report containing information recorded under §B(7)(a) of this regulation not later than 60 days following the year in which data were collected. Subsequent reports shall be sent not later than 12 calendar months following the previous report. The owner or operator of a source subject to
the permitting requirements under Title V of the federal Clean Air Act shall submit these reports semiannually. The report shall be signed by the facility manager.

C. Compliance Schedules.

(1) Except as provided in §C(2) of this regulation, a person who owns or operates an HDR or a small rural area HDR subject to this chapter shall:

(a) Achieve compliance with all the requirements on or before March 15, 2001; or

(b) Submit to the Department and the EPA for approval, a compliance plan that includes the following increments of progress:

(i) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device or devices, or modification;

(ii) Date for obtaining design drawings of the air pollution control device or devices, or modification;

(iii) Date for ordering the air pollution control device or devices, or modification;

(iv) Date for obtaining the major components of the air pollution control device or devices, or modification;

(v) Date for initiation of site preparation for installation of the air pollution control device or devices, or modification;

(vi) Date for initiation of installation of the air pollution control device or devices, or modification;

(vii) Date for initial startup of the air pollution control device or devices, or modification;

(viii) Date for initial compliance test or tests of the air pollution control device or devices, or modification; and

(ix) Date for achieving compliance which is not later than March 15, 2002.

(2) The compliance plan required in §C(1)(b) of this regulation shall be submitted to the Department on or before September 15, 2000, in accordance with the requirements in 40 CFR §60.39e(d)(1)(i) and (ii).

(3) The compliance plan submitted by an affected facility that proposes to treat HDR generated at another site shall identify the off-site facility in the compliance plan. When the Department approves the compliance plan, the plan shall constitute the compliance plan for the off-site facility.

D. Permit Requirements.

(1) A person who owns or operates an HDR or a small rural area HDR subject to this chapter shall, not later than July 15, 2000, submit a complete application for a Part 70 permit in accordance with COMAR 26.11.03.

(2) On or before September 15, 2000, the Department shall make a completeness determination of the Part 70 application in accordance with the requirements in Clean Air Act §503 and 40 CFR Parts 70 and 71.
.08-2 Emission Standards and Requirements for HMIWIs Under 40 CFR 60 Subpart Ce as Revised October 6, 2009.

A. Applicability and Emission Standards. The emission standards and requirements of §B(1)–(7) and §C(1)–(6) of this regulation apply to a person who owns or operates an HMIWI subject to 40 CFR Part 60, Subpart Ce, as revised, October 6, 2009.

B. Emission Limits and Requirements for Small, Medium, and Large HMIWIs.

(1) A person who owns or operates a small, medium, or large HMIWI for which construction was commenced on or before June 20, 1996 or for which modification commenced on or before March 16, 1998 shall comply with the following emission limits.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>Emission limits</th>
<th>Test Method</th>
<th>Averaging Time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
<td>Medium</td>
<td>Large</td>
<td>EPA Reference Method 5 of Appendix A-3 of 40 CFR Part 60, or EPA reference Method 26A or 29 of Appendix A-8 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td></td>
<td>Particulate matter</td>
<td></td>
<td></td>
<td>EPA Method 9 and PM CEMS. Alternative use of PM CEMS as stipulated under 40 CFR §60.56c(b)(9) in lieu of EPA Method 9, Appendix A-4 or Bag leak detection system</td>
<td>6 minute block average</td>
</tr>
<tr>
<td></td>
<td>Opacity</td>
<td></td>
<td></td>
<td>EPA Method 9 and PM CEMS. Alternative use of PM CEMS as stipulated under 40 CFR §60.56c(b)(9) in lieu of EPA Method 9, Appendix A-4 or Bag leak detection system</td>
<td>6 minute block average</td>
</tr>
<tr>
<td></td>
<td>Carbon monoxide</td>
<td></td>
<td></td>
<td>EPA Reference Method 10 of Appendix A-4 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td></td>
<td>Dioxins/furans</td>
<td></td>
<td></td>
<td>EPA Reference Method 23 of Appendix A-7 of 40 CFR Part 60</td>
<td>3 run average (4 hr minimum sample time per run)</td>
</tr>
<tr>
<td></td>
<td>Hydrogen chloride</td>
<td></td>
<td></td>
<td>EPA Reference Method 26 or 26A of Appendix A-8 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td></td>
<td>Sulfur dioxide</td>
<td></td>
<td></td>
<td>EPA Reference Method 6 or 6C of Appendix A-4 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Pollutant</td>
<td>Units (7 percent oxygen, dry basis)</td>
<td>Emission limits</td>
<td>Test Method</td>
<td>Averaging Time</td>
<td></td>
</tr>
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<tr>
<td></td>
<td></td>
<td>Small</td>
<td>Medium</td>
<td>Large</td>
<td></td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>190</td>
<td>190</td>
<td>140</td>
<td>EPA Reference Method 7 or 7E of Appendix A-4</td>
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<td>of 40 CFR Part 60</td>
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<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic</td>
<td>0.018</td>
<td>0.018</td>
<td>0.036</td>
<td>EPA Reference Method 29 of Appendix A-8</td>
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<td></td>
<td>cubic meter (grains per thousand</td>
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<td></td>
<td>dry standard cubic feet)</td>
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<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic</td>
<td>0.013</td>
<td>0.0092</td>
<td>0.0092</td>
<td>EPA Reference Method 29 of Appendix A-8</td>
</tr>
<tr>
<td></td>
<td>cubic meter (grains per thousand</td>
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<td>dry standard cubic feet)</td>
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<td></td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic</td>
<td>0.025</td>
<td>0.036</td>
<td>0.018</td>
<td>EPA Reference Method 29 of Appendix A-8</td>
</tr>
<tr>
<td></td>
<td>cubic meter (grains per thousand</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>dry standard cubic feet)</td>
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</tr>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic</td>
<td>34</td>
<td>25</td>
<td>25</td>
<td>EPA Reference Method 5 of Appendix A-8</td>
</tr>
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<td></td>
<td>cubic meter (grains per dry standard cubic foot)</td>
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<tr>
<td></td>
<td>opacity</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>EPA Method 9 and PM CEMS. Alternative use of</td>
</tr>
<tr>
<td></td>
<td>6 minute block average percent</td>
<td></td>
<td></td>
<td></td>
<td>PM CEMS as stipulated under 40 CFR §60.56c(b)</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>(9) in lieu of EPA Method 9, Appendix A-4</td>
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<td></td>
<td>Bag leak detection system 6 minute block</td>
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<td></td>
<td>opacity block average percent</td>
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<td>average</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>20</td>
<td>5.5</td>
<td>11</td>
<td>EPA Reference Method 10 of Appendix A-8</td>
</tr>
<tr>
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</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic</td>
<td>16</td>
<td>0.85</td>
<td>9.3</td>
<td>EPA Reference Method 23 of Appendix A-7</td>
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<tr>
<td></td>
<td>cubic meter total dioxins/furans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(grains per billion dry standard</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>cubic feet)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Nanograms per dry standard</td>
<td>0.013</td>
<td>0.020</td>
<td>0.054</td>
<td>EPA Reference Method 23 of Appendix A-7</td>
</tr>
<tr>
<td></td>
<td>cubic meter TEQ (grains per billion</td>
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<tr>
<td></td>
<td>dry standard cubic feet)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Nanograms per dry standard</td>
<td>0.013</td>
<td>0.020</td>
<td>0.054</td>
<td>EPA Reference Method 23 of Appendix A-7</td>
</tr>
<tr>
<td></td>
<td>cubic meter TEQ (grains per billion</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>dry standard cubic feet)</td>
<td></td>
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</tr>
</tbody>
</table>

1. Averaging Time

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Maryland 75 ppb NOx RACT SIP
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>Emission limits HMIWI size</th>
<th>Test Method</th>
<th>Averaging Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
<td>Medium</td>
<td>Large</td>
<td></td>
</tr>
<tr>
<td>chlorid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfur</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Lead</td>
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</tr>
<tr>
<td>Cadmium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercury</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

1 Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.

(3) Waste
Management Plan.

(a) A person who owns or operates an HMIWI subject to §B of this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid waste segregation or material substitution to reduce the amount of toxics emissions.

(b) The Waste Management Plan shall meet the requirements of 40 CFR §60.55c.

(c) A revised Waste Management Plan shall be submitted to the Department within 60 days of completion of the required initial compliance tests under this regulation.

(4) Compliance and Performance Testing.

(a) A person who owns or operates an HMIWI subject to §B of this regulation shall complete the initial and subsequent tests which meet the conditions and requirements using test methods and procedures listed under 40 CFR §§60.56c(b)(1) to (b)(6) and (b)(9) to (b)(14), except for annual fugitive and CO emissions testing requirements, which shall comply with 40 CFR §§60.56c(c)(3) and (4).

(b) In addition to the specified test method, compliance with the emissions limits in §B may be demonstrated by use of CEMS or any approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

(5) Monitoring Requirements. A person who owns or operates an HMIWI subject to §B of this regulation shall comply with the monitoring requirements under 40 CFR §60.57c.
(a) Exemptions. A person may elect to use the exemptions listed under 40 CFR §§60.56c(c)(5)(ii) through (v), (c)(6), (c)(7), (e)(6) through (10), (f)(7) through (10), (g)(6) through (10), and (h) for HMIWI units subject to .08-2B(1).

(6) Reporting and Record-Keeping Requirements. A person who owns or operates an HMIWI subject to §B of this regulation shall report to the Department and EPA and maintain records in accordance with the requirements listed in 40 CFR Part 60.58c(b) through (g), excluding 40 CFR §§60.58c(b)(2)(viii) and (b)(2)(xvii), (b)(2)(xviii) and (b)(2)(xix).

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>HMIWI Emission limits</th>
<th>Test Method</th>
<th>Averaging Time¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Averaging Time: 3 run average (1 hr minimum sample time per run)
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>HMIWI Emission limits</th>
<th>Test Method</th>
<th>Averaging Time¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.114 (0.048)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average(1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>7.5 (3.3)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average(1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>87 (0.038)</td>
<td>EPA Reference Method 5 of Appendix A - 3 of 40 CFR Part 60, or EPA Reference Method 26A or 29 of Appendix A - 3 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Opacity</td>
<td>6 minute block average percent</td>
<td></td>
<td>EPA Method 9 and PM CEMS.</td>
<td>6 minute block average</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>20</td>
<td>EPA Reference Method 10 of Appendix A - 4 of 40 CFR Part 60</td>
<td>3 run average(1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or Nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
<td>240 (100) or 5.1 (2.2)</td>
<td>EPA Reference Method 23 of Appendix A - 7 of 40 CFR Part 60</td>
<td>3 run average(4 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume or percent reduction</td>
<td>810</td>
<td>EPA Reference Method 26 or 26A of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average(1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
<td>55</td>
<td>EPA Reference Method 6 or 6C of Appendix A - 4 of 40 CFR Part 60</td>
<td>3 run average(1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>130</td>
<td>EPA Reference Method 7 or 7E of Appendix A - 4 of 40 CFR</td>
<td>3 run average(1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.5 (0.22)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average(1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Pollutant</td>
<td>Units (7 percent oxygen, dry basis)</td>
<td>HMIWI Emission limits</td>
<td>Test Method</td>
<td>Averaging Time</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------------------</td>
<td>-----------------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.0051 (0.0022)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
</tbody>
</table>

1. Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.

   (a) A person who owns or operates a small rural area HMIWI subject to §C of this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid waste segregation or material substitution to reduce the amount of toxics emissions.
   (b) The Waste Management Plan shall meet the requirements of 40 CFR Part §60.55c.
   (c) A revised Waste Management Plan shall be submitted to the Department within 60 days of completion of the required initial compliance tests under this regulation.

   (a) A person who owns or operates a small rural area HMIWI shall conduct the performance test in accordance with 40 CFR Part §60.56c, with the following requirements and exemptions:
      (i) The compliance test load and frequency shall be conducive to meeting the 2000 lbs/week limitation.
      (ii) For an HMIWI subject to §C(1) of this regulation, the test methods listed in 40 CFR §§60.56c(b)(7),(8), (12),(13)(Pb and Cd), and (14) and the annual PM, CO, and HCl emissions testing requirements under 40 CFR §60.56c(c)(2) and the fugitive emissions testing requirements under 40 CFR §60.56c(c)(3) do not apply.
      (iii) For an HMIWI subject to §C(2) of this regulation the annual fugitive emissions testing requirements under 40 CFR §60.56c(c)(3) do not apply.
   (b) A person who owns or operates a small rural area HMIWI not equipped with an air pollution control device shall:
      (i) Establish the 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 as required in 40 CFR §60.37e(b)(2).
      (ii) Following the date on which the initial performance test is completed, an owner operator may not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at any time, except during performance tests.
      (iii) Except as provided in §C(5)(b)(iii) of this regulation, operation of a small rural area HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.
(iv) Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameters.

(v) The owner or operator may conduct a repeat performance test within 30 days of violation of any applicable operating parameter to demonstrate that the HMIWI is not in violation of the applicable emission limit.

(vi) Repeat performance tests conducted pursuant to §C(4)(b)(v) of this regulation shall be conducted after notification to the Department.

(c) In addition to the specified test method, compliance with the emissions limits in §C may be demonstrated by use of CEMS or any approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

(5) Monitoring Requirements.

(a) A person who owns or operates a small rural area HMIWI shall comply with 40 CFR Part §60.57c.

(b) A person who owns or operates a small rural area HMIWI without an air pollution control device shall comply with the following requirements:

(i) Install, calibrate (to manufacturers' specifications), 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;

(ii) Install, calibrate (to manufacturers' specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI; and

(iii) At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and 90 percent of the operating hours per calendar quarter that the HMIWI is combusting hospital waste or medical/infectious waste, or both.

(c) Exemptions.

(i) For an HMIWI subject to the requirements of §C(1) of this regulation, the CO CEMS requirements under 40 CFR §60.56c(c)(4), and the compliance requirements for monitoring listed in 40 CFR §§60.56c(c)(5) through (7) and (d) through (k) do not apply.

(ii) For an HMIWI subject to the requirements of §C(2) of this regulation, CO CEMS requirements under 40 CFR §60.56c(c)(4), and the compliance requirements for monitoring listed in 40 CFR §§60.56c(c)(5)(ii) through (v), (c)(6) through (10), (e)(6) through (10), (f)(7) through (10), and (g)(6) through (10) do not apply.

(6) Reporting and Record-Keeping. A person who owns or operates a small rural area HMIWI shall:

(a) Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the time frame established by the Department; and

(b) Submit a report signed by the facility manager containing the information recorded under §B(6)(a) of this regulation in accordance with the following schedule:

(i) For a source subject to the permitting requirements under Title V of the federal Clean Air Act, the report shall be submitted semiannually.
(ii) For a source other than one subject to Title V of the federal Clean Air Act, the report shall be submitted annually, and not later than 60 days following the year in which the data was collected.

(c) Those records required by 40 CFR §§60.58c(b)(2)(viii) and (b)(2)(xvii), (b)(2)(xviii), and (b)(2)(xix), and (b)(7) are not required under §C(6) of this regulation.

D. Equipment Inspection Requirements.

(1) Each HMIWI shall undergo by June 15, 2012 an initial equipment inspection and subsequent annual inspections that at a minimum include the following:

(a) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot flame sensor, as necessary;

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

(c) Inspect hinges and door latches, and lubricate as necessary;

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

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

(f) Inspect motors for proper operation;

(g) Inspect primary chamber refractory lining; clean and repair or replace lining as necessary;

(h) Inspect incinerator shell for corrosion or hot spots, or both;

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

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

(k) Visually inspect waste bed (grates), and repair or seal, as appropriate;

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

(m) Inspect air pollution control device or devices for proper operation, if applicable;

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

(o) Inspect bypass stack components;

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

(q) Generally observe that the equipment is maintained in good operating condition.

(2) Within 10 operating days following an equipment inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Department for a different date to complete all necessary repairs.
E. Compliance Schedules.

(1) A person who owns or operates a HMIWI subject to this regulation shall:

(a) Comply with all the requirements of §E of this regulation and related 40 CFR Part 62, Subpart V revision requirements by June 15, 2012 or as expeditiously as practicable; or

(b) Submit to the Department and the EPA for approval, a compliance plan by December 15, 2011 that includes the following increments of progress:

   (i) Award contracts for control systems or process modifications or orders for purchase of components no later than June 15, 2012;

   (ii) Initiate on-site construction or installation of the air pollution control device(s) or process changes no later than December 15, 2012;

   (iii) Complete on-site construction or installation of control equipment or process changes by no later than December 15, 2013;

   (iv) Comply with the requirements of this regulation and related 40 CFR Part 62, Subpart V revision as expeditiously as practicable, but no later than October 6, 2014; and

   (v) Complete the compliance testing within 180 days after the final compliance date.

(2) A person who anticipates an inability to comply with the interim compliance dates described in §E(1)(b)(i)—(iii) of this regulation may submit to the Department and the EPA an alternative compliance plan designed to achieve compliance with §E(1)(b)(iv)—(v) of this regulation, and shall be bound by such plan upon the Department’s and the EPA’s approval.

F. Compliance Based on Previous Test Results. A person who owns or operates an HMIWI subject to this regulation may use previous emissions tests to demonstrate compliance with the requirements of this regulation provided:
(1) The test was conducted using the applicable procedures and test methods listed in 40 CFR §60.56c(b) or EPA-accepted voluntary consensus standards;

(2) The HMIWI is to 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);

(3) The HMIWI has not been modified such that emissions would be expected to exceed (notwithstanding normal test-to-test variability) the results from previous emissions test(s); and

(4) The previous emissions test(s) were conducted in 1996 or later.
(3) Is present at all times whenever the incinerator is in operation.

C. Training Course for Operators of Special Medical Waste or Industrial Waste Incinerators.

(1) For any incinerator operator who operates a special medical waste incinerator or an industrial waste incinerator, the training course shall be the "Hospital Incinerator Operator Training Course" Volumes I—III (EPA-450/3-89-003, EPA-450/3-89-004, and EPA-450/3-89-010, respectively), Control Technology Center, March 1989, which is incorporated by reference, and "Operation and Maintenance of Hospital Medical Waste Incinerators" (EPA-450/3-89-002), Control Technology Center, March 1989, which is incorporated by reference.

(2) For the operator of any special medical waste incinerator or an industrial waste incinerator, completing a training course means:

(a) Completing an initial training course approved by the Department of at least 3 days (24 hours) duration; and

(b) Passing a written test approved by the Department.

(3) The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1 day (8 hours) duration.

(4) For an HMIWI subject to the requirements of this chapter, a person is qualified to operate an HMIWI if the person passes the training course required in §C(2) and (3) of this regulation and complies with the requirements in 40 CFR §60.53(c)(d).

(5) An owner or operator of an HMIWI shall maintain documentation of training (operator training manual) on site and update the documentation annually at the time of the annual review course. The documentation shall be as specified in 40 CFR §60.53c(h).

(6) The requirements of §C(5) of this regulation shall be effective March 1, 2001.


(1) For any incinerator operator who operates a municipal waste combustor (MWC), sewage sludge incinerator (SSI), or hazardous waste incinerator (HWI), the training course shall address the following subjects in detail:

(a) Overall operation, maintenance, and performance of the facility;

(b) Start-up and shut-down of the facility;

(c) Applicable federal, State, and local environmental regulations, and sanctions for violation;

(d) Policies and procedures for proper and safe plant operations;

(e) Maintaining records of facility operations;

(f) Actions to correct upsets or emergencies;

(g) Control room operations;

(h) Ash handling and disposal;
(i) Combustion theory; (j) Air pollution control technology; and (k) Continuous emission monitors and their calibration, and quality assurance requirements.

(2) For the operator of any municipal waste combustor (MWC) or hazardous waste incinerator (HWI), completing a training course means:

(a) Completing an initial training course approved by the Department of at least 5 days (40 hours) duration; and

(b) Passing a written test approved by the Department.

(3) For the operator of any sewage sludge incinerator (SSI), completing a training course means:

(a) Completing an initial training course approved by the Department of at least 3 days (24 hours) duration; and

(b) Passing a written test approved by the Department.

(4) The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1 day (8 hours) duration.

E. Application for Approval of a Training Course.

(1) A person may apply for approval of a training course for operators of a special medical waste incinerator or an industrial waste incinerator by submitting a written application to the Department on a form provided by the Department.

(2) A person may apply for approval of a training course for operators of a municipal waste combustor, sewage sludge incinerator, or hazardous waste incinerator by submitting a written application to the Department and a copy of the training materials which meet the requirements of §D(1) of this regulation.

(3) The application shall include the following:

(a) The names and qualifications of persons who will conduct the training and evaluate test results;

(b) A description of the training facilities and equipment to be used in conducting the training;

(c) A copy of the test to be administered; and

(d) A description of the curriculum satisfying the requirements of §C(1) or D(1) of this regulation.

F. Action on an Application for a Training Course.

(1) The Department shall acknowledge receipt of an application for approval of a training course within 10 days after receiving the application.

(2) The Department shall act on an application within 60 days after the application is complete.

(3) The Department shall approve a training course if it meets the following:
(a) The course substantially satisfies the course contents described in §C or D of this regulation and is updated annually;

(b) The test to be administered is adequate to show that the operator is capable of operating an incinerator safely and properly;

(c) The person who conducts the training course owns or has access to a classroom facility to conduct classroom training;

(d) The applicant owns or has access to incineration equipment that is similar in design to the equipment for which operators will be trained;

(e) The applicant provides staff that is experienced in training or teaching or experienced in organizing and coordinating technical training courses;

(f) The applicant has direct knowledge of the principles of combustion and incineration or a similar technical field;

(g) The applicant is familiar with the design, operation, and maintenance of air pollution control devices and equipment and instruments used to monitor air pollutants;

(h) The applicant provides staff that is capable of conducting hands-on training and a staff that is familiar with incinerator design features and variability in design parameters; and

(i) The applicant has the ability to evaluate test results and hands-on training to determine whether a person is adequately trained to operate an incinerator.

(4) The Department may deny or revoke approval of a training course under the following conditions:

(a) The course does not substantially satisfy the required course contents;

(b) The Department determines that the course instructors are not qualified to conduct the training; or

(c) The documentation or other information provided by the applicant pertaining to training or testing is fraudulent.

G. Records and Notification. Within 10 days after training is complete, the person who conducts an approved incinerator operator training course shall:

(1) Notify the Department, in writing, of the names, employee identification numbers, and employer of those incinerator operators who have successfully completed the training course; and

(2) Provide a certificate to each incinerator operator who has satisfactorily completed the training course and has passed the required examination.


(1) The owner or operator of a large MWC as defined in Regulation .01B(5-1) of this chapter shall develop and maintain on-site an operations and maintenance manual that contains, at a minimum, all of the course content requirements in §D(1) of this regulation and in 40 CFR §60.54b(e).

(2) The operations and maintenance manual shall be updated annually.
Appendix E: COMAR 26.11.08.08 MWC REGULATION
.01 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(8) “Continuous emission monitoring (CEMS)” means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.
(12) "Existing municipal waste combustor (existing MWC)" means a municipal waste combustor for which the Department issued a permit to construct or for which construction began on or before September 20, 1994.

(13) "Fabric filter or baghouse" means an add-on air pollution control system that removes particulate matter (PM) and nonvaporous metal emissions by passing flue gas through filter bags.

(14) "Facilities manager" means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

(15) "Hazardous waste incinerator" means a hazardous waste incinerator as defined in COMAR 26.13.01.03B(33).

(16) "High-air phase" means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

(17) "Hospital" is defined at 40 CFR §60.51c.

(18) "Hospital, medical and infectious waste incinerator (HMIWI)" means a special medical waste incinerator that combusts any amount of hospital, medical, and infectious waste.

(19) "Hospital waste." (a) "Hospital waste" means discards generated at a hospital, except unused items returned to the manufacturer. "Hospital waste" does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(20) "Incinerator." (a) "Incinerator" means a furnace or combustion unit that uses controlled flame combustion for the thermal destruction of municipal solid waste. "Incinerator" does not mean a hazardous waste incinerator.
(c) “Incinerator” does not mean any unit owned or operated by a government agency to destroy illegal or prohibited goods. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(21) "Incinerator operator" means:

(a) For a municipal waste combustor (MWC), the facility manager (chief facility operator), shift foreman (supervisor), and incinerator control room personnel;

(b) For any other incinerator, the person who controls the waste feed and performs the necessary equipment adjustments to ensure efficient performance.

(22) "Industrial waste" means any solid, liquid, or semiliquid waste, generated by a manufacturing industry, that does not contain hazardous waste.

(23) "Infectious agent" means any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

(24) "Intermittent HMIWI" means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

(25) "Large HMIWI.

(a) "Large HMIWI" means:

(i) an HMIWI that has a maximum design waste burning capacity of more than 500 pounds per hour;

(ii) A continuous or intermittent HMIWI that has a maximum charge rate of more than 500 pounds per hour; or

(iii) A batch HMIWI that has a maximum charge rate of more than 4,000 pounds per day.

(b) "Large HMIWI" does not mean:

(i) A continuous or intermittent HMIWI that has a maximum charge rate of less than or equal to 500 pounds per hour; or

(ii) A batch HMIWI that has a maximum charge rate of less than or equal to 4,000 pounds per day.

(26) "Large MWC" means an existing municipal waste combustor that has a capacity greater than 250 tons per day.

(27) "Low-level radioactive waste" means:

(a) A waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or State standards for unrestricted release; or

(b) A low-level radioactive waste that is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. §2014(e)(2)).

(28) "Malfunction" is defined at 40 CFR §60.51c.
(29) “Maximum charge rate” means:
(a) For a continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits; or
(b) For a batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(30) “Maximum design waste burning capacity” means:
(a) For an intermittent and continuous HMIWI, the waste burning capacity as determined by the following formula:

\[ C = \frac{PV \times 15,000}{8,500} \]

where:
(i) \( C \) = HMIWI capacity, pounds/hour
(ii) \( PV \) = primary chamber volume, cubic feet
(iii) 15,000 = primary chamber heat release rate factor, Btu/cubic foot/hour
(iv) 8,500 = standard waste heating value, Btu/pound;
(b) For a batch HMIWI, the waste burning capacity as determined by the following formula:

\[ C = \frac{PV \times 4.5}{8} \]

where:
(i) \( C \) = HMIWI capacity, pounds/hour
(ii) \( PV \) = primary chamber volume, cubic feet
(iii) 4.5 = waste density, pounds/cubic foot
(iv) 8 = typical hours of operation of a batch HMIWI, hours.

(31) “Maximum fabric filter inlet temperature” means 110 percent of the lowest 3-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(32) “Maximum flue gas temperature” means 110 percent of the lowest 3-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

(33) “Medical, infectious waste” is defined at 40 CFR Part 60, Subpart Ec.

(34) Medium HMIWI.
(a) “Medium HMIWI” means:
(i) An HMIWI that has a maximum design waste burning capacity of more than 200 pounds per hour, but less than or equal to 500 pounds per hour;
(ii) A continuous or intermittent HMIWI that has a maximum charge rate more than 200 pounds per hour, but less than or equal to 500 pounds per hour; or
(iii) A batch HMIWI that has a maximum charge rate more than 1,600 pounds per day, but less than or equal to 4,000 pounds per day.

(b) "Medium HMIWI" does not mean:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour or more than 500 pounds per hour; or

(ii) A batch HMIWI that has a maximum charge rate more than 4,000 pounds per day or less than or equal to 1,600 pounds per day.

(35) "Minimum dioxin/furan sorbent flow rate" means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

(36) "Minimum Hg sorbent flow rate" means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

(37) "Minimum hydrogen chloride (HCl) sorbent flow rate" means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(38) "Minimum horsepower or amperage" means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

(39) "Minimum pressure drop across the wet scrubber" means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

(40) "Minimum reagent flow rate" means 90 percent of the highest 3-hour average reagent flow rate at the inlet to the selective noncatalytic reduction technology (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the NOx emissions limit.

(40-1) "Minimum scrubber liquor flow rate" means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(41) "Minimum scrubber liquor pH" means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

(42) "Minimum secondary chamber temperature" means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, CO, and dioxin/furan emission limits.

(43) "Modification or modified HMIWI" is defined at 40 CFR §60.51c.

(44) Municipal Solid Waste.

(a) "Municipal solid waste (MSW)" means municipal-type solid waste as defined in 40 CFR Part 60, Subpart Eb (Standards of Performance for Municipal Waste Combustors) as amended, which is incorporated by reference.
(b) "Municipal solid waste" does not include special medical waste.

(45) "Municipal waste combustor (MWC)" means an incinerator that burns only municipal solid waste.

(46) "Operating day" means a 24-hour period between 12 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

(47) "Operation" means the period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

(48) "Particulate matter (PM)" means the total particulate matter emitted from an HMIWI as measured by EPA Reference Method 5 or EPA Reference Method 29.

(49) "Pathological waste" means waste material consisting of only human or animal remains, anatomical parts or tissue, the bags or containers used to collect and transport the waste material, and animal bedding (if applicable).

(50) "Primary chamber" means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

(51) "Pyrolysis" means the endothermic gasification of hospital, medical, or infectious waste, or a combination of hospital, medical, and infectious waste using external energy.

(52) "Secondary chamber" means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

(53) "Sewage sludge" means a waste containing accumulated semiliquid suspension, settled solids, or dried residue of these solids from sewage in a waste water treatment plant.

(54) Shutdown.

(a) "Shutdown" means the period of time after all waste has been combusted in the primary chamber.

(b) "Shutdown" for a continuous HMIWI commences not less than 2 hours after the last charge to the incinerator.

(c) "Shutdown" for an intermittent HMIWI commences not less than 4 hours after the last charge to the incinerator.

(d) "Shutdown" for a batch HMIWI commences not less than 5 hours after the high-air phase of combustion has been completed.

(55) Small HMIWI.

(a) "Small HMIWI" means:

(i) An HMIWI that has a maximum design waste burning capacity less than or equal to 200 pounds per hour;

(ii) A continuous or intermittent HMIWI that has a maximum charge rate less than or equal to 200 pounds per hour; or

(iii) A batch HMIWI that has a maximum charge rate less than or equal to 1,600 pounds per day.
(b) "Small HMIWI" does not mean:

(i) A continuous or intermittent HMIWI that has a maximum charge rate more than 200 pounds per hour; or

(ii) A batch HMIWI that has a maximum charge rate more than 1,600 pounds per day.

(56) "Small rural area HMIWI" means a small HMIWI that is located more than 50 miles from the boundary of the nearest standard metropolitan statistical area and which burns less than 2,000 pounds per week of hospital, medical, and infectious waste (excluding those wastes burned during performance tests).

(57) Special medical waste.

(a) "Special medical waste" means:

(i) Any combination of organic and inorganic liquid or solid waste as defined in COMAR 26.13.11; or

(ii) Hospital general waste, when burned in conjunction with special medical waste generated at that hospital.

(b) "Special medical waste" includes hospital, medical, and infectious waste.

(58) "Standard conditions" means a temperature of 20°C and a pressure of 101.3 kilopascals.

(59) "Standard metropolitan statistical area (SMSA)" means any area listed in OMB Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993.

(60) Startup.

(a) "Startup" means the period of time between the activation of the system and the first charge to the unit.

(b) "Startup" for a batch HMIWI means the period of time between activation of the system and ignition of the waste.

(61) "Wet scrubber" means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) or to absorb and neutralize acid gases, or both.

.02 Applicability.

A. Any source which is subject to the provisions of this chapter is also subject to the provisions of any other chapter. However, when this chapter establishes an emission standard for a specific installation which differs from the general emission standards in COMAR 26.11.06.01—.09, this chapter takes precedence.

B. Regulation .07 of this chapter applies to an MWC that was constructed on or before August 30, 1999 and has a capacity of at least 35 tons and less than or equal to 250 tons per day.

C. Regulation .08 of this chapter applies to an existing MWC with a capacity greater than 250 tons per day as determined in accordance with 40 CFR §60.58b(j).

D. An MWC with a capacity greater than 250 tons per day for which construction began after December 20, 1989, and on or before September 20, 1994, and modification or reconstruction began after December 20, 1989,
and on or before June 19, 1996, is also subject to the requirements of 40 CFR Part 60, Subpart Ea, Standards of Performance for Municipal Waste Combustors, as amended, incorporated by reference at COMAR 26.11.06.12.

E. An MWC with a capacity greater than 250 tons per day for which construction began after September 20, 1994, or modification or reconstruction began after June 19, 1996, is also subject to the requirements of 40 CFR Part 60 Subpart Eb, Standards of Performance for Municipal Waste Combustors, as amended, incorporated by reference at COMAR 26.11.06.12.

F. A person who owns an existing MWC with a total capacity greater than 250 tons per day which was not in operation on or after December 19, 1995, may not operate the MWC unless the applicable requirements of this chapter are met.

03 Prohibition of Certain Incinerators in Areas III and IV.

A. A person may not cause or permit the construction or use of any flue-fed, chute-fed, or single-chamber incinerator.

B. Any incinerator, the use of which is prohibited under provisions of this regulation, shall be made inoperable in a manner approved by the control officer or the Department.

C. A person may not cause or permit the construction or use of any other incinerator except as listed below:

1. An incinerator that has a capacity of 5 tons (4,540 kilograms) per hour or greater and that is used to burn municipal solid waste;

2. Crematory incinerators;

3. An incinerator that has a capacity of 500 pounds (227 kilograms) per hour or greater and that is used to burn industrial waste;

4. Special medical waste incinerators that are approved for that purpose by the Department, although municipal solid waste generated at the site of a permitted special medical waste incinerator may be burned in combination with a special medical waste; and

5. Sewage sludge incinerators.

D. Householders are permitted to burn ordinary household trash originating on the premises, in incinerators, in those areas where public collection of municipal solid waste is not provided.

04 Visible Emissions.

A. In Areas I, II, V, and VI, the following apply:
.05 Particulate Matter.

.05 Particulate Matter.
.06 Prohibition of Unapproved Hazardous Waste Incinerators.

.07 Requirements for Municipal Waste Combustors with a Capacity of 35 tons or greater per day and less than or equal to 250 Tons Per Day.

A person may not operate a municipal waste combustor that has a burning capacity of 35 tons or more per day and less than or equal to 250 tons per day that was constructed on or before August 30, 1999 which results in violation of the provisions of 40 CFR 62 Subpart JJJ.

.08 Requirements for an Existing Large MWC with a Capacity Greater Than 250 Tons Per Day.

A. Emission Standards and General Requirements.

1. A person who owns or operates an existing large MWC subject to this regulation may not violate any of the emission standards or general requirements in §A(2) of this.

2. Emission Standards and General Requirements.

<table>
<thead>
<tr>
<th>Pollutant or Parameter</th>
<th>Emission Standards for a Large MWC</th>
<th>Performance and Compliance Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide*</td>
<td>100 ppmv - 4 hr block avg.</td>
<td></td>
</tr>
<tr>
<td>Dioxin/Furans*</td>
<td>Before April 28, 2009, 60 nanograms per dry standard cubic meter (total mass) for ESP-based control device and 30 nanograms per dry standard cubic meter (total mass) for non-ESP-based control device. On and after April 28, 2009, the emission limit for ESP-based control device is 35 nanograms per dry standard cubic meter and 30 nanograms per dry standard cubic meter for non-ESP-based emission control system.</td>
<td>EPA Reference Method 23. Annual test except as provided in 40 CFR §60.58b(g)(5)(iii). Applicable test procedures and methods as specified in 40 CFR §60.58b(g). Certified continuous automated sampling option in lieu of a stack test as specified in 40 CFR 60.58b(g)(10).</td>
</tr>
<tr>
<td>Particulate Matter*</td>
<td>Before April 28, 2009, 0.012 EPA Reference Method 5. Annual test methods and</td>
<td></td>
</tr>
</tbody>
</table>
Maryland 75 ppb NOx RACT SIP

- **Cd (Cadmium)**
  - Before April 28, 2009, 40 micrograms per dry standard cubic meter.
  - On and after April 28, 2009, 35 micrograms per dry standard cubic meter.
- **Pb (Lead)**
  - Before April 28, 2009, 440 micrograms per dry standard cubic meter.
  - On and after April 28, 2009, 400 micrograms per dry standard cubic meter.
- **Hg (Mercury)**
  - Before April 28, 2009, 80 micrograms per dry standard cubic meter or 85 percent reduction by weight, whichever is less restrictive.
  - On and after April 28, 2009, 50 micrograms per dry standard cubic meter or 85 percent reduction by weight, whichever is less restrictive.
- **SO2 (Sulfur Dioxide)**
  - 29 ppmv—24-hr geometric mean or 75 percent reduction, whichever is less restrictive.
- **HCl (Hydrogen Chloride)**
  - 29 ppmv or 95 percent reduction, whichever is less restrictive.
- **NOx (Oxides of Nitrogen)**
  - 205 ppmv 24-hr arithmetic average. Mass burn refractory MWC is exempt.
  - CEMS (only for sources to which an emission standard applies). Applicable test procedures and methods as provided in 40 CFR §60.58b(h).

Load Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test. Continuous monitoring. —4-hr block arithmetic average steam load. Applicable test procedures and methods are as provided in 40 CFR §60.58b(i).
Temperature

The maximum particulate matter control device inlet temperature must not exceed by more than 17°C the temperature during the most recent dioxin/furan test demonstrating compliance.

Continuous monitoring. The temperature shall be calculated in 4-hr block arithmetic averages. Applicable test procedures and methods are as provided in 40 CFR §60.58b(i) and exemptions in 40 CFR §60.53b(c).

Fugitive Ash Emissions

Visible emissions less than 5 percent of the observation period (i.e., 9 minutes per 3-hour period) during ash transfer.

EPA Reference Method 22 observations as specified in 40 CFR §60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash-conveying systems during maintenance and repair of ash-conveying systems as specified in 40 CFR §60.55b.

* Corrected to 7 percent oxygen on dry basis. If a CO₂ monitor is selected as the dilutent monitor it must meet the requirements of 40CFR §60.58b(b)(6).

(3) The standards in §A(2) of this regulation apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a).

B. Monitoring Requirements.

(1) A person who owns or operates an existing MWC subject to this regulation shall:

   (a) Install, calibrate, operate, and maintain continuous monitors for oxides of nitrogen, and sulfur dioxide;

   (b) Locate monitors downstream of the final air pollution control device to measure concentrations of oxygen, oxides of nitrogen, and sulfur dioxide of the exhaust gases;

   (c) Install, operate, and maintain at a minimum, one temperature monitor to measure the temperature of the flue gas as it enters the particulate matter air pollution control device;

   (d) Meet the specifications in §A(2) of this regulation if an alternative monitoring or sampling method of compliance is selected in lieu of a stack test.

(2) If the percent removal option is to be used to show compliance with §B(1)(b) of this regulation, sulfur dioxide and oxygen monitors shall also be located upstream of the pollution control device. Monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide.

(3) The monitors required by §B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, and 26.11.01.11, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, all requirements in 40 CFR §60.58b, COMAR 26.11.31.

(4) A person shall apply for and receive written approval from the Department before installing any of the monitors required in this chapter.

C. Reporting and Record-Keeping Requirements.

(1) A person who owns an existing MWC subject to this regulation shall report and maintain records in accordance with 40 CFR §60.59b of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR Part 60, Subpart Eb;
(2) Continuous monitoring data reduction and data availability shall be as prescribed in COMAR 26.11.01.10 and 26.11.01.11. If there is any inconsistency between COMAR 26.11.01.10 and 26.11.01.11 and 40 CFR 60, the requirements of 40 CFR 60 govern.
.08-1 Emission Standards and Requirements for HMIWIs.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
</tr>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
</tr>
<tr>
<td>Opacity (Areas III and IV no visible emissions)</td>
<td>6 minute block average percent</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume or percent reduction</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction</td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction</td>
</tr>
</tbody>
</table>
(4) Waste Management Plan. A person who owns or operates an HMIWI subject to this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid waste segregation or material substitution to reduce the amount of toxics emissions. The Waste Management Plan shall meet the requirements of 40 CFR Part 60.55c, Subpart Ec.

(5) Compliance and Performance Testing. A person who owns or operates an HMIWI subject to this regulation shall complete the initial and subsequent tests using the procedures, conditions, and test methods in 40 CFR Part 60.56c, Subpart Ec, excluding the fugitive emissions testing requirements under 40 CFR §60.56c(b)(12) and (c)(3).

(6) Monitoring Requirements. A person who owns or operates an HMIWI subject to this regulation shall comply with the monitoring requirements in 40 CFR Part 60.57c, Subpart Ec.

(7) Reporting and Recordkeeping Requirements. A person who owns or operates an HMIWI subject to this regulation shall report and maintain records in accordance with the requirements listed in 40 CFR Part 60.58c(b), (c), (d), (e), and (f) of Subpart Ec, excluding 40 CFR §60.58c(b)(2)(ii) (fugitive emissions) and 40 CFR §60.58c(b)(7) (siting).

B. Emission Limits and Requirements for Small Rural Area HMIWIs.

(1) The emission limits and requirements in §B(2) — (6) of this regulation apply to a person who owns or operates a small rural area HMIWI, and remain applicable until such HMIWI comes into full and final compliance in accordance with Regulation .08-2 of this chapter and its related 111(d)/129 plan revision.

(2) Emission Limits.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>HMIWI Emission limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>197 (0.086)</td>
</tr>
<tr>
<td>Opacity</td>
<td>6 minute block average percent</td>
<td>10</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>40</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or Nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
<td>800 (350) or 15 (6.6)</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume</td>
<td>3,100</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
<td>55</td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>250</td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>10 (4.4)</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>4 (1.7)</td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>7.5 (3.3)</td>
</tr>
</tbody>
</table>
(3) Inspection Requirements.

(a) Each small rural area HMIWI shall undergo an initial equipment inspection by March 15, 2001, that at a minimum includes 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 lubricate 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; clean and repair or replace lining as necessary;

(viii) Inspect incinerator shell for corrosion or hot spots, or both;

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

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

(xi) Visually inspect waste bed (grates), and repair or seal, as appropriate;

(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 device or 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.

(b) Within 10 operating days following an equipment inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Department for a different date to complete all necessary repairs.

(c) Each small rural area HMIWI shall undergo an equipment inspection annually (no more than 12 months following the previous annual equipment inspection), as outlined in §B(3)(a) and (b) of this regulation.

(4) Waste Management Plan. A person who owns or operates a small rural area HMIWI subject to this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid
waste segregation or material substitution to reduce the amount of toxics emissions. The Waste Management Plan shall meet the requirements of 40 CFR Part 60.55c, Subpart Ec.

(5) Compliance and Performance Testing.

(a) A person who owns or operates a small rural area HMIWI shall conduct the performance test in 40 CFR Part 60.56c(a), (b)(1)–(9), (b)(11)(Hg only), and (c)(1), Subpart Ec. The 2,000 pound per week limit does not apply during performance tests.

(b) During the test required in §B(5)(a) of this regulation, a maximum charge rate and minimum secondary chamber temperature shall be established as site-specific operating parameters to determine compliance with applicable emission limits as required in 40 CFR §60.37e(b)(2).

(c) Following the date on which the initial performance test is completed, a person may not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown, and malfunction. 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 or parameters.

(d) Except as provided in §B(5)(e) of this regulation, operation of an HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(e) The owner or operator of an HMIWI may conduct a repeat performance test within 30 days of violation of applicable operating parameter or parameters to demonstrate that the HMIWI is not in violation of the applicable emission limit or limits. Repeat performance tests conducted pursuant to this regulation shall be conducted after notification to the Department using the identical operating parameters that indicated a violation as required in 40 CFR §60.37e(b)(5).

(6) Monitoring Requirements. A person who owns or operates a small rural area HMIWI shall meet the following monitoring requirements:

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

(c) 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 75 percent of the operating hours per day and for 90 percent of the operating hours per calendar quarter that the designated facility is combusting hospital waste or medical/infectious waste, or both.

(7) Reporting and Recordkeeping. A person who owns or operates a small rural area HMIWI shall:

(a) Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the time frame established by the Department;

(b) Submit an annual report containing information recorded under §B(7)(a) of this regulation not later than 60 days following the year in which data were collected. Subsequent reports shall be sent not later than 12 calendar months following the previous report. The owner or operator of a source subject to
the permitting requirements under Title V of the federal Clean Air Act shall submit these reports semiannually. The report shall be signed by the facility manager.

C. Compliance Schedules.

(1) Except as provided in §C(2) of this regulation, a person who owns or operates an HMIWI or a small rural area HMIWI subject to this chapter shall:

(a) Achieve compliance with all the requirements on or before March 15, 2001; or

(b) Submit to the Department and the EPA for approval, a compliance plan that includes the following increments of progress:

(i) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device or devices, or modification;

(ii) Date for obtaining design drawings of the air pollution control device or devices, or modification;

(iii) Date for ordering the air pollution control device or devices, or modification;

(iv) Date for obtaining the major components of the air pollution control device or devices, or modification;

(v) Date for initiation of site preparation for installation of the air pollution control device or devices, or modification;

(vi) Date for initiation of installation of the air pollution control device or devices, or modification;

(vii) Date for initial startup of the air pollution control device or devices, or modification;

(viii) Date for initial compliance test or tests of the air pollution control device or devices, or modification; and

(ix) Date for achieving compliance which is not later than March 15, 2002.

(2) The compliance plan required in §C(1)(b) of this regulation shall be submitted to the Department on or before September 15, 2000, in accordance with the requirements in 40 CFR §60.39e(d)(1)(i) and (ii).

(3) The compliance plan submitted by an affected facility that proposes to treat HMIWI generated at another site shall identify the off-site facility in the compliance plan. When the Department approves the compliance plan, the plan shall constitute the compliance plan for the off-site facility.

D. Permit Requirements.

(1) A person who owns or operates an HMIWI or a small rural area HMIWI subject to this chapter shall, not later than July 15, 2000, submit a complete application for a Part 70 permit in accordance with COMAR 26.11.03.

(2) On or before September 15, 2000, the Department shall make a completeness determination of the Part 70 application in accordance with the requirements in Clean Air Act §503 and 40 CFR Parts 70 and 71.
.08-2 Emission Standards and Requirements for HMIWIs Under 40 CFR 60 Subpart Ce as Revised October 6, 2009.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>Emission limits</th>
<th>Test Method</th>
<th>Averaging Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>66 (0.029)</td>
<td>EPA Reference Method 5 of Appendix A - 3 of 40 CFR Part 60, or EPA reference Method 26A or 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>20</td>
<td>EPA Reference Method 10 of Appendix A - 4 of 40 CFR Part 60</td>
<td>3 run average</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard</td>
<td>16 (7.0) or 0.013 (0.0057)</td>
<td>EPA Reference Method 23 of Appendix A - 7 of 40 CFR Part 60</td>
<td>3 run average</td>
</tr>
</tbody>
</table>

Opacity
6 minute block average percent: 10

Carbon monoxide
5.5

Dioxins/furans
9.3 (4.1) or 0.054 (0.024)

EPA Method 9 and PM CEMS. Alternative use of PM CEMS as stipulated under 40 CFR §60.56c(b)(9) in lieu of EPA Method 9, Appendix A - 4 or Bag leak detection system: 6 minute block average.
<table>
<thead>
<tr>
<th>Substance</th>
<th>Unit</th>
<th>Measurement 1</th>
<th>Measurement 2</th>
<th>Measurement 3</th>
<th>Reference Method</th>
<th>Measurement 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume</td>
<td>44</td>
<td>7.7</td>
<td>6.6</td>
<td>EPA Reference Method 26 or 26A</td>
<td>-</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
<td>4.2</td>
<td>4.2</td>
<td>9.0</td>
<td>EPA Reference Method 6 or 6C of Appendix A</td>
<td>-</td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>190</td>
<td>190</td>
<td>140</td>
<td>EPA Reference Method 7 or 7E of Appendix A</td>
<td>-</td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.31 (0.14)</td>
<td>0.018 (0.0079)</td>
<td>0.036 (0.016)</td>
<td>EPA Reference Method 29 of Appendix A</td>
<td>-</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.017 (0.0074)</td>
<td>0.013 (0.0057)</td>
<td>0.0092 (0.0040)</td>
<td>EPA Reference Method 29 of Appendix A</td>
<td>-</td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.014 (0.0061)</td>
<td>0.025 (0.011)</td>
<td>0.018 (0.0079)</td>
<td>EPA Reference Method 29 of Appendix A</td>
<td>-</td>
</tr>
</tbody>
</table>

1. Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.
2. A person who owns or operates a small, medium, or large HMIWI for which construction was commenced after June 20, 1996 but no later than December 1, 2008, or for which modification commenced after March 16, 1998 but no later than April 6, 2010, shall comply with the following emission limits.
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>Emission limits</th>
<th>HMIWI size</th>
<th>Test Method</th>
<th>Averaging Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>66 (0.029)</td>
<td>34 (0.015)</td>
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<tr>
<td></td>
<td>EPA Reference Method 5 of Appendix A</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40 CFR Part 60, or EPA reference Method 26A or 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opacity</td>
<td>6 minute block average percent</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA Method 9 and PM CEMS. Alternative use of PM CEMS as stipulated under 40 CFR §60.56c(b)(9) in lieu of EPA Method 9, Appendix A - 4 or Bag leak detection system</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>20</td>
<td>5.5</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA Reference Method 10 of Appendix A</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40 CFR Part 60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
<td>16 (7.0)</td>
<td>0.85</td>
<td>9.3 (4.1)</td>
<td></td>
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<tr>
<td></td>
<td>EPA Reference Method 23 of Appendix A - 7 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td>3 run average (4 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume or percent reduction</td>
<td>15 or 99%</td>
<td>7.7</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA Reference Method 26 or 26A of Appendix A - 8 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
<td>4.2</td>
<td>4.2</td>
<td>9.0</td>
<td></td>
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<tr>
<td></td>
<td>EPA Reference Method 6 or 6C of Appendix A - 4 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>190</td>
<td>190</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA Reference Method 7 or 7E of Appendix A - 4 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.31 (0.14)</td>
<td>0.018</td>
<td>0.036</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.017 (0.0074)</td>
<td>0.013</td>
<td>0.0092</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.014 (0.0061)</td>
<td>0.025</td>
<td>0.018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td></td>
<td></td>
<td>3 run average (1 hr minimum sample time per run)</td>
<td></td>
</tr>
</tbody>
</table>

1 Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.
(3) Waste Management Plan.

(a) A person who owns or operates an HMIWI subject to §B of this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid waste segregation or material substitution to reduce the amount of toxics emissions.

(b) The Waste Management Plan shall meet the requirements of 40 CFR §60.55c.

(c) A revised Waste Management Plan shall be submitted to the Department within 60 days of completion of the required initial compliance tests under this regulation.

(4) Compliance and Performance Testing.

(a) A person who owns or operates an HMIWI subject to §B of this regulation shall complete the initial and subsequent tests which meet the conditions and requirements using test methods and procedures listed under 40 CFR §§60.56c(b)(1) to (b)(6) and (b)(9) to (b)(14), except for annual fugitive and CO emissions testing requirements, which shall comply with 40 CFR §§60.56c(c)(3) and (4).

(b) In addition to the specified test method, compliance with the emissions limits in §B may be demonstrated by use of CEMS or any approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

(5) Monitoring Requirements. A person who owns or operates an HMIWI subject to §B of this regulation shall comply with the monitoring requirements under 40 CFR §60.57c.

(a) Exemptions. A person may elect to use the exemptions listed under 40 CFR §§60.56c(c)(5)(ii) through (v), (c)(6), (c)(7), (e)(6) through (10), (f)(7) through (10), (g)(6) through (10), and (h) for HMIWI units subject to .08-

(b) Alternative Compliance Option. A person may elect to use CO CEMS as specified under 40 CFR §60.56c(c)(4) or bag leak detection systems as specified under 40 CFR §60.57c(h).

(6) Reporting and Record-Keeping Requirements. A person who owns or operates an HMIWI subject to §B of this regulation shall report to the Department and EPA and maintain records in accordance with the requirements listed in 40 CFR Part 60.58c(b) through (g), excluding 40 CFR §§60.58c(b)(2)(viii) and (b)(2)(xvii),(b)(2)(xviii) and (b)(2)(xix).

C. Emission Limits and Requirements for Small Rural Area HMIWIs.

(1) A person who owns or operates a small rural area HMIWI for which construction was commenced on or before June 20, 1996, or for which modification commenced on or before March 16, 1998, shall comply with the following emission limits.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units (7 percent oxygen, dry basis)</th>
<th>HMIWI Emission limits</th>
<th>Test Method</th>
<th>Averaging Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>197 (0.086)</td>
<td>EPA Reference Method 5 of Appendix A-3 of 40 CFR Part 60, or EPA reference Method 26A or 29 of Appendix A-3 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td></td>
<td>Opacity</td>
<td>6 minute block average percent</td>
<td>EPA Method 9 and PM CEMS.</td>
<td>Alternative use of PM CEMS as stipulated under 40 CFR 6 minute block average</td>
</tr>
<tr>
<td>Pollutant</td>
<td>Units (7 percent oxygen, dry basis)</td>
<td>HMIWI Emission limits</td>
<td>Test Method</td>
<td>Averaging Time</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------</td>
<td>-----------------------</td>
<td>-------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>40</td>
<td>EPA Reference Method 10 of Appendix A - 4 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or Nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
<td>800 (350) or 15 (6.6)</td>
<td>EPA Reference Method 23 of Appendix A - 7 of 40 CFR Part 60</td>
<td>3 run average (4 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume or percent reduction</td>
<td>3,100</td>
<td>EPA Reference Method 26 or 26A of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
<td>55</td>
<td>EPA Reference Method 6 or 6C of Appendix A - 4 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>250</td>
<td>EPA Reference Method 7 or 7E of Appendix A - 4 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>10 (4.4)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>4 (1.7)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>7.5 (3.3)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
<td>3 run average (1 hr minimum sample time per run)</td>
</tr>
</tbody>
</table>

1 Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.

(2) A person who owns or operates a small rural area HMIWI for which construction commenced after June 20, 1996 but no later than December 1, 2008, or for which modification was commenced after March 16, 1998 but no later than April 6, 2010, shall comply with the following emission limits.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Method</th>
<th>MD 75 ppb NOx RACT SIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate matter</td>
<td>Milligrams per dry standard cubic meter (grains per dry standard cubic foot)</td>
<td>87 (0.038)</td>
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</tr>
<tr>
<td>Opacity</td>
<td>6 minute block average percent</td>
<td>6</td>
<td>EPA Method 9 and PM CEMS. Alternative use of PM CEMS as stipulated under 40 CFR §60.56c(b)(9) in lieu of EPA Method 9, Appendix A - 4 or Bag leak detection system 6 minute block average</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Parts per million by volume</td>
<td>20</td>
<td>EPA Reference Method 10 of Appendix A - 4 of 40 CFR Part 60</td>
</tr>
<tr>
<td>Dioxins/furans</td>
<td>Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or Nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)</td>
<td>240 (100) or 5.1 (2.2)</td>
<td>EPA Reference Method 23 of Appendix A - 7 of 40 CFR Part 60</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>Parts per million by volume or percent reduction</td>
<td>810</td>
<td>EPA Reference Method 26 or 26A of Appendix A - 8 of 40 CFR</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Parts per million by volume</td>
<td>55</td>
<td>EPA Reference Method 6 or 6C of Appendix A - 4 of 40 CFR Part 60</td>
</tr>
<tr>
<td>Nitrogen oxides</td>
<td>Parts per million by volume</td>
<td>130</td>
<td>EPA Reference Method 7 or 7E of Appendix A - 4 of 40 CFR Part 60</td>
</tr>
<tr>
<td>Lead</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.5 (0.22)</td>
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<tr>
<td>Cadmium</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.114 (0.048)</td>
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<tr>
<td>Mercury</td>
<td>Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)</td>
<td>0.0051 (0.0022)</td>
<td>EPA Reference Method 29 of Appendix A - 8 of 40 CFR Part 60</td>
</tr>
</tbody>
</table>
(3) Waste Management Plan.

(a) A person who owns or operates a small rural area HMIWI subject to §C of this regulation shall prepare a Waste Management Plan that identifies the feasibility and the approach to solid waste segregation or material substitution to reduce the amount of toxics emissions.

(b) The Waste Management Plan shall meet the requirements of 40 CFR Part §60.55c.

(c) A revised Waste Management Plan shall be submitted to the Department within 60 days of completion of the required initial compliance tests under this regulation.

(4) Compliance and Performance Testing.

(a) A person who owns or operates a small rural area HMIWI shall conduct the performance test in accordance with 40 CFR Part §60.56c, with the following requirements and exemptions:

(i) The compliance test load and frequency shall be conducive to meeting the 2000 lbs/week limitation.

(ii) For an HMIWI subject to §C(1) of this regulation, the test methods listed in 40 CFR §§60.56c(b)(7),(8), (12),(13)(Pb and Cd), and (14) and the annual PM, CO, and HCl emissions testing requirements under 40 CFR §60.56c(c)(2) and the fugitive emissions testing requirements under 40 CFR §60.56c(c)(3) do not apply.

(iii) For an HMIWI subject to §C(2) of this regulation, the annual fugitive emissions testing requirements under 40 CFR §60.56c(c)(3) do not apply.

(b) A person who owns or operates a small rural area HMIWI not equipped with an air pollution control device shall:

(i) Establish the 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 as required in 40 CFR §60.37e(b)(2).

(ii) Following the date on which the initial performance test is completed, an owner operator may not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at any time, except during performance tests.

(iii) Except as provided in §C(5)(b)(iii) of this regulation, operation of a small rural area HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(iv) Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameters.

(v) The owner or operator may conduct a repeat performance test within 30 days of violation of any applicable operating parameter to demonstrate that the HMIWI is not in violation of the applicable emission limit.

(vi) Repeat performance tests conducted pursuant to §C(4)(b)(v) of this regulation shall be conducted after notification to the Department.
In addition to the specified test method, compliance with the emissions limits in §C may be demonstrated by use of CEMS or any approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

(5) Monitoring Requirements.

(a) A person who owns or operates a small rural area HMIWI shall comply with 40 CFR Part §60.57c.

(b) A person who owns or operates a small rural area HMIWI without an air pollution control device shall comply with the following requirements:

(i) Install, calibrate (to manufacturers' specifications), 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;

(ii) Install, calibrate (to manufacturers' specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI; and

(iii) At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and 90 percent of the operating hours per calendar quarter that the HMIWI iscombusting hospital waste or medical/infectious waste, or both.

(c) Exemptions.

(i) For an HMIWI subject to the requirements of §C(1) of this regulation, the CO CEMS requirements under 40 CFR §60.56c(c)(4), and the compliance requirements for monitoring listed in 40 CFR §§60.56c(c)(5) through (7) and (d) through (k) do not apply.

(ii) For an HMIWI subject to the requirements of §C(2) of this regulation, CO CEMS requirements under 40 CFR §60.56c(c)(4), and the compliance requirements for monitoring listed in 40 CFR §§60.56c(c)(5)(ii) through (v), (c)(6) through (10), (e)(6) through (10), (f)(7) through (10), and g(6) through (10) do not apply.

(6) Reporting and Record-Keeping. A person who owns or operates a small rural area HMIWI shall:

(a) Maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the time frame established by the Department; and

(b) Submit a report signed by the facility manager containing the information recorded under §B(6)(a) of this regulation in accordance with the following schedule:

(i) For a source subject to the permitting requirements under Title V of the federal Clean Air Act, the report shall be submitted semiannually.

(ii) For a source other than one subject to Title V of the federal Clean Air Act, the report shall be submitted annually, and not later than 60 days following the year in which the data was collected.

(c) Those records required by 40 CFR §§60.58c(b)(2)(viii) and (b)(2)(xvii), (b)(2)(xviii), and (b)(2)(xix), and (b)(7) are not required under §C(6) of this regulation.

D. Equipment Inspection Requirements.

(1) Each HMIWI shall undergo by June 15, 2012 an initial equipment inspection and subsequent annual inspections that at a minimum include the following:
(a) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot flame sensor, as necessary;

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

(c) Inspect hinges and door latches, and lubricate as necessary;

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

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

(f) Inspect motors for proper operation;

(g) Inspect primary chamber refractory lining; clean and repair or replace lining as necessary;

(h) Inspect incinerator shell for corrosion or hot spots, or both;

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

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

(k) Visually inspect waste bed (grates), and repair or seal, as appropriate;

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

(m) Inspect air pollution control device or devices for proper operation, if applicable;

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

(o) Inspect bypass stack components;

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

(q) Generally observe that the equipment is maintained in good operating condition.

(2) Within 10 operating days following an equipment inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Department for a different date to complete all necessary repairs.

(3) Each HMIWI shall undergo an equipment inspection annually (within 12 months following the previous annual equipment inspection), in accordance with the requirements of §D(1) of this regulation.

(4) The control device of an HMIWI shall undergo by June 15, 2012, an initial inspection that at a minimum includes the following:

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

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

(c) Generally observe that the equipment is maintained in good operating condition; and
(d) Within 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 Department establishing a date whereby all necessary repairs of the designated facility shall be completed.

(5) The control device of HMIWI shall undergo an inspection annually (within 12 months following the previous annual inspection), in accordance with the requirements of §D(4) of this regulation.

E. Compliance Schedules.

(1) A person who owns or operates a HMIWI subject to this regulation shall:

(a) Comply with all the requirements of §E of this regulation and related 40 CFR Part 62, Subpart V revision requirements by June 15, 2012 or as expeditiously as practicable; or

(b) Submit to the Department and the EPA for approval, a compliance plan by December 15, 2011 that includes the following increments of progress:

(i) Award contracts for control systems or process modifications or orders for purchase of components no later than June 15, 2012;

(ii) Initiate on-site construction or installation of the air pollution control device(s) or process changes no later than December 15, 2012;

(iii) Complete on-site construction or installation of control equipment or process changes by no later than December 15, 2013;

(iv) Comply with the requirements of this regulation and related 40 CFR Part 62, Subpart V revision as expeditiously as practicable, but no later than October 6, 2014; and

(v) Complete the compliance testing within 180 days after the final compliance date.

(2) A person who anticipates an inability to comply with the interim compliance dates described in §E(1)(b)(i)—(iii) of this regulation may submit to the Department and the EPA an alternative compliance plan designed to achieve compliance with §E(1)(b)(iv)—(v) of this regulation, and shall be bound by such plan upon the Department's and the EPA's approval.

F. Compliance Based on Previous Test Results. A person who owns or operates an HMIWI or a small rural area HMIWI subject to this regulation may use previous emissions tests to demonstrate compliance with the requirements of this regulation provided:

(1) The test was conducted using the applicable procedures and test methods listed in 40 CFR §60.56c(b) or EPA-accepted voluntary consensus standards;

(2) The HMIWI is to 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);

(3) The HMIWI has not been modified such that emissions would be expected to exceed (notwithstanding test-to-test variability) the results from previous emissions test(s); and

(4) The previous emissions test(s) were conducted in 1996 or later.

G. HMIWI Shutdown.
.09 Incinerator Operator Training.

A. Applicability. This regulation applies to any person in this State who owns or operates an incinerator.

B. Certification and Operation. A person may not operate or allow an incinerator to be operated unless the owner certifies to the Department on a form provided by the Department that the incinerator operator:

(1) Has completed an initial training course approved by the Department which meets the requirements of §C or D of this regulation;

(2) Annually, after initial certification, completes a review course approved by the Department; and

(3) Is present at all times whenever the incinerator is in operation.

C. Training Course for Operators of Special Medical Waste or Industrial Waste Incinerators.

(1) For any incinerator operator who operates a special medical waste incinerator or an industrial waste incinerator, the training course shall be the "Hospital Incinerator Operator Training Course" Volumes I—III (EPA-450/3-89-003, EPA-450/3-89-004, and EPA-450/3-89-010, respectively), Control Technology Center, March 1989, which is incorporated by reference, and "Operation and Maintenance of Hospital Medical Waste Incinerators" (EPA-450/3-89-002), Control Technology Center, March 1989, which is incorporated by reference.

(2) For the operator of any special medical waste incinerator or an industrial waste incinerator, completing a training course means:
(a) Completing an initial training course approved by the Department of at least 3 days (24 hours) duration; and
(b) Passing a written test approved by the Department.

(3) The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1 day (8 hours) duration.

(4) For an HMIWI subject to the requirements of this chapter, a person is qualified to operate an HMIWI if the person passes the training course required in §C(2) and (3) of this regulation and complies with the requirements in 40 CFR §60.53(c)(d).

(5) An owner or operator of an HMIWI shall maintain documentation of training (operator training manual) on site and update the documentation annually at the time of the annual review course. The documentation shall be as specified in 40 CFR §60.53c(h).

(6) The requirements of §C(5) of this regulation shall be effective March 1, 2001.


(1) For any incinerator operator who operates a municipal waste combustor (MWC), sewage sludge incinerator (SSI), or hazardous waste incinerator (HWI), the training course shall address the following subjects in detail:
   (a) Overall operation, maintenance, and performance of the facility;
   (b) Start-up and shut-down of the facility;
   (c) Applicable federal, State, and local environmental regulations, and sanctions for violation;
   (d) Policies and procedures for proper and safe plant operations;
   (e) Maintaining records of facility operations;
   (f) Actions to correct upsets or emergencies;
   (g) Control room operations;
   (h) Ash handling and disposal;
   (i) Combustion theory;
   (j) Air pollution control technology; and
   (k) Continuous emission monitors and their calibration, and quality assurance requirements.

(2) For the operator of any municipal waste combustor (MWC) or hazardous waste incinerator (HWI), completing a training course means:
   (a) Completing an initial training course approved by the Department of at least 5 days (40 hours) duration; and
   (b) Passing a written test approved by the Department.
(3) For the operator of any sewage sludge incinerator (SSI), completing a training course means:
(a) Completing an initial training course approved by the Department of at least 3 days (24 hours) duration; and
(b) Passing a written test approved by the Department.

(4) The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1 day (8 hours) duration.

E. Application for Approval of a Training Course.
(1) A person may apply for approval of a training course for operators of a special medical waste incinerator or an industrial waste incinerator by submitting a written application to the Department on a form provided by the Department.

(2) A person may apply for approval of a training course for operators of a municipal waste combustor, sewage sludge incinerator, or hazardous waste incinerator by submitting a written application to the Department and a copy of the training materials which meet the requirements of §D(1) of this regulation.

(3) The application shall include the following:
(a) The names and qualifications of persons who will conduct the training and evaluate test results;
(b) A description of the training facilities and equipment to be used in conducting the training;
(c) A copy of the test to be administered; and
(d) A description of the curriculum satisfying the requirements of §C(1) or D(1) of this regulation.

F. Action on an Application for a Training Course.
(1) The Department shall acknowledge receipt of an application for approval of a training course within 10 days after receiving the application.

(2) The Department shall act on an application within 60 days after the application is complete.

(3) The Department shall approve a training course if it meets the following:
(a) The course substantially satisfies the course contents described in §C or D of this regulation and is updated annually;
(b) The test to be administered is adequate to show that the operator is capable of operating an incinerator safely and properly;
(c) The person who conducts the training course owns or has access to a classroom facility to conduct classroom training;
(d) The applicant owns or has access to incineration equipment that is similar in design to the equipment for which operators will be trained;
(e) The applicant provides staff that is experienced in training or teaching or experienced in organizing and coordinating technical training courses;
(f) The applicant has direct knowledge of the principles of combustion and incineration or a similar technical field;

(g) The applicant is familiar with the design, operation, and maintenance of air pollution control devices and equipment and instruments used to monitor air pollutants;

(h) The applicant provides staff that is capable of conducting hands-on training and a staff that is familiar with incinerator design features and variability in design parameters; and

(i) The applicant has the ability to evaluate test results and hands-on training to determine whether a person is adequately trained to operate an incinerator.

(4) The Department may deny or revoke approval of a training course under the following conditions:

(a) The course does not substantially satisfy the required course contents;

(b) The Department determines that the course instructors are not qualified to conduct the training; or

(c) The documentation or other information provided by the applicant pertaining to training or testing is fraudulent.

G. Records and Notification. Within 10 days after training is complete, the person who conducts an approved incinerator operator training course shall:

(1) Notify the Department, in writing, of the names, employee identification numbers, and employer of those incinerator operators who have successfully completed the training course; and

(2) Provide a certificate to each incinerator operator who has satisfactorily completed the training course and has passed the required examination.


(1) The owner or operator of a large MWC as defined in Regulation .01B(5-1) of this chapter shall develop and maintain on-site an operations and maintenance manual that contains, at a minimum, all of the course content requirements in §D(1) of this regulation and in 40 CFR §60.54b(e).

(2) The operations and maintenance manual shall be updated annual