



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Craig W. Butler, Director

8/20/2015

Steve Pantano
 Stericycle Inc
 1901 Pine Ave Se
 Warren, OH 44483

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0278080634
 Permit Number: P0119097
 Permit Type: Administrative Modification
 County: Trumbull

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
 77 South High Street, 17th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

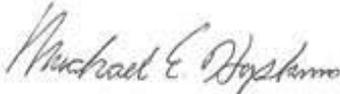
Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)963-1200 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
Ohio EPA-NEDO; Pennsylvania; West Virginia; Canada



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Stericycle Inc**

Facility ID:	0278080634
Permit Number:	P0119097
Permit Type:	Administrative Modification
Issued:	8/20/2015
Effective:	8/20/2015



Division of Air Pollution Control
Permit-to-Install
for
Stericycle Inc

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Final Permit-to-Install
Stericycle Inc
Permit Number: P0119097
Facility ID: 0278080634
Effective Date: 8/20/2015

Authorization

Facility ID: 0278080634
Facility Description:
Application Number(s): M0003320
Permit Number: P0119097
Permit Description: The purpose of this PTI administrative modification is to incorporate the additional pieces of air pollution control equipment (carbon bed system and SNCR) into the TV, which is currently in the renewal process.
Permit Type: Administrative Modification
Permit Fee: \$500.00
Issue Date: 8/20/2015
Effective Date: 8/20/2015

This document constitutes issuance to:

StericycleInc
1901 Pine Avenue SE
Warren, OH 44483

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)963-1200

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Final Permit-to-Install
Stericycle Inc
Permit Number: P0119097
Facility ID: 0278080634
Effective Date:8/20/2015

Authorization (continued)

Permit Number: P0119097

Permit Description: The purpose of this PTI administrative modification is to incorporate the additional pieces of air pollution control equipment (carbon bed system and SNCR) into the TV, which is currently in the renewal process.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	N001
Company Equipment ID:	Incinerator
Superseded Permit Number:	02-13436
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Stericycle Inc
Permit Number: P0119097
Facility ID: 0278080634
Effective Date:8/20/2015

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of

installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Final Permit-to-Install
Stericycle Inc
Permit Number: P0119097
Facility ID: 0278080634
Effective Date:8/20/2015

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Stericycle Inc
Permit Number: P0119097
Facility ID: 0278080634
Effective Date: 8/20/2015

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.



Final Permit-to-Install
Stericycle Inc
Permit Number: P0119097
Facility ID: 0278080634
Effective Date:8/20/2015

C. Emissions Unit Terms and Conditions

1. N001, Medical Waste Incinerator

Operations, Property and/or Equipment Description:

Medical waste incineration

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 62, Subpart HHH (This rule is applicable until OAC rule 3745-75 is revised to include the associated emission limitations, monitoring, record keeping, reporting and performance testing requirements)	<p>Particulate matter emissions (PM) shall not exceed 25 mg PM/dscm (0.011 grain PM/dscf) of exhaust gases.</p> <p>Carbon monoxide (CO) emissions shall not exceed 11 parts per million (ppm) by volume as a 12-hour rolling average, calculated as specified in EPA Reference Method 19.</p> <p>Dioxins/furans (D/F) emissions shall not exceed 9.3 ng/dscm (4.1 grains/billion dscf) of total dioxins/furans or 0.054 ng/dscm (0.024 grain/billion dscf) expressed as Toxic Equivalency Factors (TEQ).</p> <p>Hydrogen chloride (HCl) emissions shall not exceed 6.6 ppm by volume.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 9.0 ppm by volume.</p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 140 ppm by volume.</p> <p>Lead (Pb) and Pb compound emissions (measured as Pb) shall not exceed 0.036 mg/dscm (0.016 gr/1000 dscf).</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Cadmium (Cd) and Cd compound emissions (measured as Cd) shall not exceed 0.0092 mg/dscm (0.0040 gr/1000 dscf).</p> <p>Mercury (Hg) and Hg compound emissions (measured as Hg) shall not exceed 0.018 mg/dscm (0.0079 gr/1000 dscf).</p> <p>(all units corrected to 7% oxygen, dry basis at standard conditions)</p> <p>[Table 1 to Subpart HHH of Part 62 – Emissions Limits for Small Rural, Small, Medium, and Large HMIWI.</p> <p>Gases discharged into the atmosphere from the stack shall not exhibit greater than 6 percent opacity (6-minute block average) pursuant to §62.14412(a).</p>
b.	OAC rule 3745-75-02	<p>Arsenic (As) and As compound emissions shall not exceed 0.21 mg/dscm (0.092 gr/1000 dscf).</p> <p>Beryllium (Be) and Be compound emissions shall not exceed 0.026 mg/dscm (0.011 gr/1000 dscf).</p> <p>Chromium (Cr) and Cr compound emissions shall not exceed 0.075 mg/dscm (0.033 gr/1000 dscf).</p> <p>Nickel (Ni) and Ni compound emissions shall not exceed 0.65 mg/dscm (0.284 gr/1000 dscf).</p> <p>(all units corrected to 7% oxygen, dry basis at standard conditions)</p>
c.	OAC rule 3745-75-02(K)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
d.	OAC rule 3745-17-07	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-09	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-75-02.
f.	OAC rule 3745-31-05(A)(3)	The emission limitations required by this applicable rule are less stringent than the emission limitations established pursuant to OAC rule 3745-75-02 and Table 1B of 40 CFR Part 62, Subpart HHH. There shall be no visible emissions from the exhaust stack serving this emissions unit.

(2) Additional Terms and Conditions

- a. The emissions from the large hospital/medical/infectious waste incinerator's (HMIWI) exhaust stack shall not exceed the following limitations: Compliance with emission limits for pollutants without CEMS (continuous emissions monitoring system) are determined through the monitoring of operating parameters (measured as 3-hour rolling averages). Any pollutant being monitored by a CEM, installed and maintained in accordance with the applicable procedures under Appendices B and F of 40 CFR Part 60, shall be calculated as 12-hour rolling averages (not including startup and shutdown).

The emission limitations established pursuant to OAC 3745-75-02 and 40 CFR Part 62, Subpart HHH shall apply at all times.

[Authority for term: OAC rule 3745-75-02(A) through (K) and §62.14413]

c) Operational Restrictions

- (1) The waste material feed rate to this incinerator shall be limited to 1534.3 pounds per hour (or a rate established during either the initial performance testing or most recent performance test as petitioned by the permittee), measured as 3-hour rolling averages.

[Authority for term: OAC rule 3745-75-01(B) and OAC rule 3745-31-05]

- (2) All incineration shall occur in a controlled air, multi-chamber incinerator, or equivalent technology as approved by the Director, which provides complete combustion of waste, excluding non-combustible items, to carbonized or mineralized ash. Any ash that does not meet this criterion shall be re-incinerated.

[Authority for term: OAC rule 3745-75-03]

- (3) The primary combustion chamber for this incinerator shall be maintained so that the exit gas is at a minimum temperature of 1400 degrees Fahrenheit. The secondary combustion chamber for this incinerator shall operate so that the temperature of the gas exiting the chamber is a minimum of 90% of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the initial performance test or the most recent performance test as petitioned by the permittee, demonstrating compliance with the PM, CO, and D/F limits, or a minimum temperature of 1800 degrees Fahrenheit, whichever is greater.

[Authority for term: OAC rule 3745-75-03 and OAC rule 3745-31-05]

- (4) The secondary combustion chamber of this incinerator shall allow for a 2-second retention time at 1800 degrees Fahrenheit.

[Authority for term: OAC rule 3745-75-03(D) and OAC rule 3745-31-05]

- (5) This incinerator shall be equipped with an automatic feeder which is designed and operated so that wastes cannot be charged if the temperature of the gas exiting the secondary combustion chamber has not reached the minimum temperature established in c)(3).

[Authority for term: OAC rule 3745-75-03]

- (6) Infectious waste shall not be loaded into the primary combustion chamber of this incinerator until the exit gas temperature has reached 1400 degrees Fahrenheit.

[Authority for term: OAC rule 3745-75-03]

- (7) The stack(s) for this incinerator shall be designed to minimize the impact of the emissions on employees, residents, visitors, and nearby residences. The design shall meet good engineering practices so as not to cause concentrations of any air contaminant at any air intake for heating and cooling of any building or at operable windows or doors.

[Authority for term: OAC rule 3745-75-03]

- (8) If this incinerator is mechanically-fed, it must be equipped with an air lock system to prevent opening the incinerator to the room environment. The volume of the loading system shall be designed so as to prevent the overcharging of the unit to ensure complete combustion of the waste.

[Authority for term: OAC rule 3745-75-03]

- (9) This incinerator shall be equipped with an air pollution control system designed to reduce HCl emissions, D/F emissions, and Hg emissions and provide for continuous compliance with the HCl, D/F, and Hg emission limits when the unit is in operation.

[Authority for term: OAC rule 3745-75-03 and OAC rule 3745-31-05]

- (10) The permittee shall maintain the air pollution control system(s) to aid in the control of D/F, Hg, and HCl. The applicable parameters required to be monitored under OAC rule

3745-75-04 shall be maintained at or above minimum levels and below maximum levels established during either the initial performance testing or most recent performance test as petitioned by the permittee.

[Authority for term: OAC rule 3745-75-04]

- (11) This incinerator, including all associated equipment and grounds, shall be designed, operated and maintained to prevent the emission of objectionable odors.

[Authority for term: OAC rule 3745-75-03(K)]

- (12) Under no circumstances shall radiological or radioactive waste be charged into this unit.

Medical/infectious waste that is also radioactive shall be managed in accordance with the applicable rules of the Ohio department of health and regulations of the United States nuclear regulatory commission.

[Authority for term: OAC rule 3745-75-03(L) and ORC 3743.027]

- (13) The permittee shall not intentionally dispose of the following items by charging and burning them in the HMIWI:

- a. visible globules of mercury;
- b. Nickel-cadmium batteries;
- c. Switches, thermometers, batteries, and other devices containing mercury; and
- d. Cadmium, chromium, or lead as a pigmenting agent.

[Authority for term: OAC 3745-75-03(M)]

- (14) This facility may not receive or incinerate any hazardous waste materials as defined in 40 CFR Part 216, Subpart D.

[Authority for term: OAC rule 3745-31-05]

- (15) During either the initial performance testing or most recent performance test as petitioned by the permittee, the permittee shall establish the following operating parameters to be monitored and minimum measurement and recording frequencies for HMIWIs with wet scrubber and/or SNCR (selective non-catalytic reduction) system:

Operating parameters to be monitored	Data measurement (minimum frequency)	Data recording (minimum frequency)
*Maximum charge rate	Once per charge	Once per charge

Minimum secondary chamber temperature	Continuous	Once per minute
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	Continuous	Once per minute
Minimum scrubber liquor flow rate	Continuous	Once per minute
Minimum scrubber liquor pH	Continuous	Once per minute
Minimum reagent flow rate	Hourly	Once per hour
*Maximum flue gas temperature at the inlet to the carbon bed system	Continuous	Once per minute

The permittee must establish the appropriate maximum and minimum operating parameters, indicated in the table above, as site-specific operating parameters during the initial performance test to determine compliance with the emission limits.

After the date on which the initial performance test is completed or is required to be completed under §62.14470, whichever comes first, your HMIWI must not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in the table above and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours), at all times except during performance tests.

*On October 14, 2014, U.S. EPA approved Stericycle's petition for approval of alternative methods of demonstrating compliance and major alternatives to monitoring per §62.14495(b) and §62.14495(c) for the use of a carbon bed system for additional mercury (Hg) control.

[Authority for term: §62.14453]

- (16) The carbon bed system for additional Hg control shall be designed and operated with two beds in series, with the second bed serving as a guard bed. The permittee shall operate and maintain the affected carbon bed systems in accordance with written Operating and Maintenance Procedures developed by Stericycle, which procedures shall, at a minimum, address the following:
- a. Replace each carbon bed or the carbon in each bed before it has reached the end of its useful life. For the replacement of carbon in the primary bed, the secondary bed will be rotated into the primary bed position and new carbon shall be used in the secondary bed position; and
 - b. Use the brand (i.e., manufacturer) and type of carbon used during the most recent performance test that demonstrated compliance with the Hg emission limitation or following notification as described below, a different brand or type of carbon with equivalent or improved properties compared to the carbon used in the performance test.
 - i. The permittee shall notify the Ohio EPA at least ten (10) days prior to changing the brand or type of activated carbon for the carbon bed systems. This notification shall identify the new brand or type of carbon, the reason for the change, a demonstration that the substitute carbon will provide an equivalent or improved level of control of Hg as compared to the carbon used in the previous performance test, with supporting documentation, and the expected results for control of Hg emissions.
- (17) For all HMIWI, you must install, calibrate (to manufacturers' specifications), maintain and operate a device or method for measuring the use of the bypass stack, including the date, time and duration of such use.

[Authority for term: §62.14454]

- (18) The permittee must 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 must be obtained for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that your HMIWI is combusting hospital waste and/or medical/infectious waste.

[Authority for term: §62.14454]

- (19) Use of the bypass stack to the HMIWI shall constitute a violation of the PM, D/F, HCl, Pb, Cd and Hg emission limitations.

[Authority for term: §62.14455]

- (20) Operating the HMIWI equipped with a wet scrubber with venturi, above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the D/F emission limitation.
- [Authority for term: OAC rule 3745-75-02(O) and §62.14455]
- (21) Operating the HMIWI equipped with a wet scrubber with venturi, above the maximum charge rate and below the minimum absorber scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limitation.
- [Authority for term: OAC rule 3745-75-02(R) and §62.14455]
- (22) Operating the HMIWI equipped with a carbon bed system, above the maximum waste charge rate and above the maximum flue gas temperature at the inlet of the carbon bed system (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limitation.
- [Authority for term: §62.14453]
- (23) Operating the HMIWI equipped with a wet scrubber with venturi, above the maximum charge rate and below the minimum pressure drop across the wet scrubber with venturi (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM emission limitation.
- [Authority for term: OAC rule 3745-75-02(T) and §62.14455]
- (24) Operating the HMIWI equipped with a SNCR system above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum reagent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the NOX emission limitation.
- [Authority for term: §62.14455]
- (25) You may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that your HMIWI is not in violation of the applicable emissions limit(s). You must conduct repeat performance tests pursuant to this paragraph using the identical operating parameters that indicated a violation under paragraph (b), (c), (d), (e), or (f) of this section.

If you are using a CEMS to demonstrate compliance with any of the emissions limits in table 1 of this subpart or §62.14412, and your CEMS indicates compliance with an emissions limit during periods when operating parameters indicate a violation of an emissions limit under paragraphs (b), (c), (d), (e) or (f) of this section, then you are considered to be in compliance with the emissions limit. You need not conduct a repeat performance test to demonstrate compliance.

You may conduct a repeat performance test in accordance with §62.14452 at any time to establish new values for the operating parameters.

[Authority for term: §62.14455]

- (26) The permittee shall conduct inspections of the HMIWI equipment as outlined below annually (no more than 12 months following the initial inspection or previous annual HMIWI equipment inspection). At a minimum, the permittee shall do the following during the HMIWI equipment inspection:
- a. Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation, and clean pilot flame sensor as necessary;
 - b. Check for 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, and clean and repair/replace lining as necessary;
 - h. Inspect incinerator shell for corrosion and/or hot spots;
 - 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/ seal, as necessary;
 - 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(s) 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;
 - q. Include inspection elements according to manufacturer's recommendations; and

r. Generally observe that the equipment is maintained in good operating condition.

[Authority for term: OAC rule 3745-77-07(A)(1), §62.14441, and §62.14442]

(27) The permittee shall conduct the air pollution control device inspections on the large, medium, small or small rural HMIWI as outlined below annually (no more than 12 months following the initial inspection or previous annual air pollution control device inspection). At a minimum, the permittee shall do the following during your air pollution control device inspection:

- 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. Include inspection elements according to manufacturer's recommendations; and
- d. Generally observe that the equipment is maintained in good operating condition.

[Authority for term: §62.14441 and §62.14442]

(28) The permittee shall complete any necessary repairs to the HMIWI equipment within 10 operating days of the HMIWI equipment inspection unless the permittee obtains written approval from the Ohio EPA Administrator (or delegated enforcement authority) establishing a different date when all necessary repairs of your HMIWI equipment must be completed.

[Authority for term: §62.14443]

(29) The permittee shall complete any necessary repairs to the air pollution control device within 10 operating days of the air pollution control device inspection unless the permittee obtains written approval from the EPA Administrator (or delegated enforcement authority) establishing a different date when all necessary repairs of the air pollution control device must be completed. During the time that the permittee conducts repairs to the air pollution control device, all emissions standards remain in effect according to §62.14413.

[Authority for term: §62.14443]

(30) The permittee shall have a fully trained and qualified HMIWI operator, either at the facility or able to be at the facility within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

[Authority for term: §62.14420]

(31) The HMIWI operator can obtain training and qualification through a State-approved program or if there are no State-approved training and qualification programs available or if the operator does not want to participate in a State-approved program, then the operator must complete a training course that includes the requirements below:

- a. Twenty-four hours of training that includes all of the following subjects:
 - i. Environmental concerns, including pathogen destruction and types of emissions;
 - ii. Basic combustion principles, including products of combustion;
 - iii. Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;
 - iv. Combustion controls and monitoring;
 - v. Operation of air pollution control equipment and factors affecting performance (if applicable);
 - vi. Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);
 - vii. Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;
 - viii. Actions to correct malfunctions and conditions that may lead to malfunction;
 - ix. Bottom and fly ash characteristics and handling procedures;
 - x. Applicable Federal, State, and local regulations;
 - xi. Work safety procedures;
 - xii. Prestartup inspections;
 - xiii. Recordkeeping requirements; and
 - xiv. Training in waste segregation according to §62.14430(c).
- b. An examination designed and administered by the instructor; and
- c. Reference material distributed to the attendees covering the course topics.

[Authority for term: §62.14421 and §62.14422]

- (32) The operator must also satisfy the qualification requirements in §62.14423 as identified below:
 - a. The operator must have either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation and supervision of two qualified HMIWI operators.

- b. To remain qualified, the operator must complete and pass an annual review or refresher course of at least 4 hours covering, at a minimum, the following:
 - i. Update of regulations;
 - ii. Incinerator operation, including startup and shutdown procedures;
 - iii. Inspection and maintenance;
 - iv. Responses to malfunctions or conditions that may lead to malfunction; and
 - v. Discussion of operating problems encountered by attendees.

[Authority for term: §62.14423]

- (33) If the operator's qualification lapses, he or she must renew it by one of the following methods:
 - a. For a lapse of less than 3 years, complete and pass a standard annual refresher course described in above; and
 - b. For a lapse of 3 years or more, complete and pass a training course with the minimum criteria described in §62.14422.

[Authority for term: §62.14423]

- (34) The permittee shall maintain the following documentation at the facility:
 - a. Summary of the applicable standards under 40 CFR Part 62, Subpart HHH and/or Ohio EPA's applicable rule(s) concerning HMIWIs;
 - b. Description of basic combustion theory applicable to an HMIWI;
 - c. Procedures for receiving, handling, and charging waste;
 - d. Procedures for startup, shutdown, and malfunction;
 - e. Procedures for maintaining proper combustion air supply levels;
 - f. Procedures for operating the HMIWI and associated air pollution control systems within the standards established under 40 CFR Part 62, Subpart HHH and/or Ohio EPA's applicable rule(s) concerning HMIWIs;
 - g. Procedures for responding to malfunction or conditions that may lead to malfunction;
 - h. Procedures for monitoring HMIWI emissions;
 - i. Reporting and recordkeeping procedures; and
 - j. Procedures for handling ash.

The permittee shall keep the information listed in paragraph above in a readily accessible location for all HMIWI operators. This information, along with records of training, must be available for inspection by the Ohio EPA upon request.

The permittee shall establish a program for reviewing the information listed in above annually with each HMIWI operator (defined in §62.14490), and the operator must review the information annually.

[Authority for term: §62.14424 and §62.14425]

- (35) The permittee is required to have a waste management plan, as required by §62.14431 and must include the following:
- a. Your waste management plan must identify both the feasibility of, and the approach for, separating certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. The waste management plan you develop may address, but is not limited to, elements such as segregation and recycling of paper, cardboard, plastics, glass, batteries, food waste and metals (e.g., aluminum cans, metals-containing devices); segregation of non-recyclable wastes (e.g., polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste such as dental waste); and purchasing recycled or recyclable products. Your waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. When you develop your waste management plan, it should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other potential environmental or energy impacts they might have. In developing your waste management plan, you must consider the American Hospital Association (AHA) publication titled "Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities." This publication (AHA Catalog Number 057007) is available for purchase from AHA Services, Inc., Post Office Box 933283, Atlanta, Georgia 31193-3283.

If you own or operate commercial HMIWI, you must conduct training and education programs in waste segregation for each of your waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed in this section.

If you own or operate commercial HMIWI, you must conduct training and education programs in waste segregation for your HMIWI operators.

As specified in §§62.14463 and 62.14464, you must submit your waste management plan with your initial report, which is due 60 days after you demonstrate initial compliance with the amended emissions limits, by conducting an initial performance test or submitting the results of previous emissions tests, provided the conditions in §62.14451(e) are met.

[Authority for term: §62.14430, §62.14431 and §62.14432]

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the primary combustion exhaust gas temperature, the secondary combustion exhaust gas temperature, and the bypass stack temperature when the incinerator is in operation. Units shall be in degrees Fahrenheit. Accuracy for each thermocouple, monitor and recorder shall be guaranteed by the manufacturer to be within 0.75 percent of the temperature being measured or 2.5 degrees Fahrenheit, whichever is greater. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

[Authority for term: OAC rules 3745-77-07(C)(1), 3745-75-04(A), 3745-75-04(D) and 3745-75-04(H)]

- (2) The permittee shall maintain records of the following data:
- a. Concentrations of any pollutant listed in the table identified in section C.1.b)(1) of this permit, measurements of opacity and visible ash.
 - b. The HMIWI charge dates, times, and weights and hourly charge rates.
 - c. Fabric filter inlet temperatures during each minute of operation, as applicable.
 - d. Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable.
 - e. Amount and type of Hg sorbent used during each hour of operation, as applicable.
 - f. Amount and type of HCl sorbent used during each hour of operation, as applicable.
 - g. Amount and type of NOX reagent used during each hour of operation, as applicable.
 - h. Secondary chamber temperatures recorded during each minute of operation.
 - i. Liquor flow rate to the wet scrubber with venturi inlet during each minute of operation, as applicable.
 - j. Horsepower or amperage to the wet scrubber during each minute of operation, as applicable.

- k. Pressure drop across the wet scrubber with venturi during each minute of operation, as applicable.
- l. Temperature at the inlet to the carbon bed system during each minute of operation, as applicable.
- m. The pH at the inlet to the wet scrubber with venturi during each minute of operation, as applicable.
- n. Records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 operating days of an inspection or the time frame established by the EPA Administrator or delegated enforcement authority, as applicable.
- o. Records indicating use of the bypass stack, including dates, times, and durations.
- p. All operating parameter data collected, if you are complying by monitoring site-specific operating parameters under §62.14453(b).
- q. Concentrations of CO, PM, HCl, Pb, Cd, Hg and dioxin/furan, as applicable, as determined by the CEMS or continuous automated sampling system, as applicable.
- r. Records of the annual air pollution control device inspections, any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.
- s. Records of each bag leak detection system alarm, the time of the alarm, the time corrective action was initiated and completed and a brief description of the cause of the alarm and the corrective action taken, as applicable.

[Authority for term: §62.14460]

- (3) The permittee shall monitor the performance of the carbon beds in each affected carbon bed system as provided below to ensure that the carbon in each bed has not reached the end of its useful life to control mercury emissions to at least the level needed to comply with the limits of Table 1 of 40 CFR Part 62, Subpart HHH.
 - a. Monitoring shall be conducted consistent with the manufacturer's written specifications and recommendations.
 - b. The permittee shall document the monitoring procedures in the operating and maintenance procedures.
 - c. The permittee shall keep records of the performance monitoring.

- (4) Identification of calendar days for which data on emissions rates or operating parameters specified under paragraph d)(3)(a) through (s) of this section were not obtained, with an identification of the emissions rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.

[Authority for term: §62.14460]
- (5) Identification of calendar days, times and durations of malfunctions, and a description of the malfunction and the corrective action taken.

[Authority for term: §62.14460]
- (6) Identification of calendar days for which data on emissions rates or operating parameters specified under paragraph d)(3)(a) through (s) of this section exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances and a description of corrective actions taken.

[Authority for term: §62.14460]
- (7) The results of the initial, annual and any subsequent performance tests conducted to determine compliance with the emissions limits and/or to establish or re-establish operating parameters, as applicable, including sample calculations, of how the operating parameters were established or re-established, if applicable.

[Authority for term: §62.14460]
- (8) Records showing the names of HMIWI operators who have completed review of the documentation in §62.14424 as required by §62.14425, including the date of the initial review and all subsequent annual reviews.

[Authority for term: §62.14460]
- (9) Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

[Authority for term: §62.14460]
- (10) Records showing the names of the HMIWI operators who have met the criteria for qualification under §62.14423 and the dates of their qualification.

[Authority for term: §62.14460]
- (11) Records of calibration of any monitoring devices as required under §62.14454.

[Authority for term: §62.14460]
- (12) Except as provided in §§62.14452(o) through (q), the permittee shall install, calibrate (to manufacturers' specifications), maintain and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in the Table in d)(2) above (unless CEMS are used as a substitute for certain parameters as

specified) such that these devices (or methods) measure and record values for the operating parameters at the frequencies indicated in the Table in d)(2) above at all times. For charge rate, the device must measure and record the date, time and weight of each charge fed to the HMIWI. This must be done automatically, meaning that the only intervention from an operator during the process would be to load the charge onto the weighing device. For batch HMIWI, the maximum charge rate is measured on a daily basis (the amount of waste charged to the unit each day).

[Authority for term: §62.14454]

- (13) Radioactive waste shall not be charged to this incinerator. The permittee shall operate and maintain equipment to continuously monitor the radioactivity of all waste prior to combustion. This monitor shall be equipped with an alarm which sounds a warning when radioactive waste is present. For purposes of this permit, radioactive waste shall be defined as any waste which measures above ambient background levels of radiation. All radioactive infectious waste shall be managed in accordance with the applicable rules of the Ohio Department of Health and the regulations of the United States Nuclear Regulatory Commission.

[Authority for term: OAC rule 3745-75-04(C) and OAC rule 3745-77-07(C)(1)]

- (14) A scale (accurate to within one pound) shall be installed near this incinerator to weigh all of the material charged to the unit. A record of the amount of material charged to this unit, on a pounds per 3-hour rolling average basis, shall be maintained. (Alternative arrangements may be approved by the Director provided they can be shown to be of equivalent effectiveness as a method of regulating flow into the incinerator and generating a permanent record of charging rates.)

[Authority for term: OAC rules 3745-77-07(C)(1), 3745-75-04(E), 3745-75-04(H) and 3745-75-04(K)]

- (15) A logbook shall be maintained for each continuous emissions monitoring system installed on this incinerator to document all activities involving the monitoring systems. Appropriate records should include, as a minimum, preventive maintenance, quality assurance and corrective action activities.

[Authority for term: OAC rule 3745-77-07(C)(1)]

- (16) The HMIWI, having a capacity greater than 1,000 pounds per hour shall be equipped with a continuous carbon monoxide monitor and alarm. The alarm shall sound whenever concentrations exceed 150 ppm as an instantaneous measurement. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60, Section 60.13 and Appendix B, Performance Specification 4 and shall be maintained and operated in accordance with 40 CFR Part 60, Appendix F. The permittee shall document all instances of carbon monoxide values in excess of the limitations specified in OAC rule 3745-75-02 or any limitations specified in the terms and conditions of this permit.

[Authority for term: OAC rules 3745-77-07(C)(1) and OAC 3745-75-04(B)]

- (17) The HMIWI, having a capacity greater than 1,000 pounds per hour shall be equipped with a continuous opacity monitor unless exempted by the director because of the influence of condensed water vapor in the stack exit gas. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60, Section 60.13 and Appendix B, Performance Specification 1. The permittee shall document all instances of opacity in excess of the limitations specified in OAC rule 3745-75-02(K) or any limitations specified in the terms and conditions of this permit.

[Authority for term: OAC 3745-75-04(F) and (G)]

- (18) Prior to burning any infectious waste in this incinerator, the permittee shall install, operate and maintain equipment to continuously monitor and record the CO emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60, section 60.13 and Appendix B, Performance Specification 4 and OAC rule 3745-75-04. The permittee shall maintain and operate the CO continuous emissions monitoring (CEM) system in accordance with 40 CFR Part 60, Appendix F. Any new CEM system for CO shall be designed so that the requirements in 40 CFR Part 60, Appendix F can be achieved.

The permittee shall operate a CEM system to measure oxygen concentrations, for adjusting pollutant concentrations to 7 percent oxygen.

[Authority for term: OAC rules 3745-77-07(C)(1), 3745-75-04(B) and 3745-75-04(G)]

- (19) The permittee shall operate and maintain equipment to continuously monitor and record CO emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to:

- a. emissions of CO in units of the applicable standard(s) in the appropriate averaging period;
- b. results of cylinder gas audits;
- c. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- d. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- e. hours of operation of the emissions unit, continuous CO monitoring system, and control equipment;
- f. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO monitoring system;

- g. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO monitoring system; and
- h. the reason (if known) and the corrective actions taken (if any) for each such event in (f) and (g).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13] and [40 CFR Part 60, Appendices B & F]

- (20) The permittee shall document all instances of CO values in excess of the limitations specified in the terms and conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

- (21) The certified CEM system for CO shall be the means by which compliance with the terms and conditions of this permit is determined. Compliance with the appropriate emission limitation shall be based upon 12-hour, rolling averages, calculated each hour as the average of the previous 12 operating hours (not including start-up, shutdown, or malfunctions.)

[Authority for term: OAC rule 3745-77-07(C)(1)]

- (22) The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[Authority for term: 40 CFR 63.2 and Appendix F to 40 CFR Part 60]

- (23) The permittee shall maintain a written quality assurance/quality control plan for the continuous CO monitoring system, designed to ensure continuous valid and representative readings of CO emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix F]

e) Reporting Requirements

- (1) The permittee shall submit annual reports, by January 31 of each year, that provide the total amount of waste incinerated, in tons, during the previous calendar year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

- (2) The permittee also shall submit quarterly deviation (excursion) reports that identify all periods of operation during which the average charge rate exceeded the limitation specified in c)(1) above, including the actual charge rates for all such periods of operation. The quarterly deviation reports shall be submitted in accordance with Standard Term and Condition A.2.

[Authority for term: OAC rule 3745-77-07(C)(1)]

- (3) The permittee shall submit quarterly deviation (excursion) reports that provide the following information for each period during which the primary or secondary combustion chamber exhaust gas temperature falls below the applicable limitation during normal operation:

- a. the date of the excursion;
- b. the time interval over which the excursion occurred;
- c. the temperature values during the excursion;
- d. the cause(s) for the excursion; and
- e. the corrective action which has been or will be taken to prevent similar excursions in the future.

The quarterly deviation reports shall be submitted in accordance with Standard Term and Condition A.2.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-75-05]

- (4) The permittee shall submit quarterly deviation reports that identify all periods of operation in which the carbon bed system is not monitored, operated and maintained in accordance with c)(16) and d)(3) above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

- (5) Pursuant to 40 CFR Part 60, section 60.7 and 60.13(h), 40 CFR Part 60, Appendix F and OAC rule 3745-75-05, the permittee shall submit quarterly reports that document all instances of CO values in excess of the limitations specified in the terms and conditions of this permit. The permittee shall submit data assessment reports in accordance with 40 CFR Part 60, Appendix F. The quarterly deviation reports shall be submitted in accordance with Standard Term and Condition A.2.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-75-05]

- (6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO monitoring system:
- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-21, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous CO and other associated monitors;
 - iii. continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total CO emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous CO monitoring system while the emissions unit was in operation;
 - viii. results and dates of cylinder gas audits;
 - ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
 - x. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO monitor out-of-control and the compliant results following any corrective actions;
 - xi. the date, time, and duration of any/each malfunction** of the continuous CO monitoring system, emissions unit, and/or control equipment;

- xii. the date, time, and duration of any downtime** of the continuous CO monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

[Authority for term: 40 CFR 60.7]

- (7) The permittee shall submit quarterly deviation (excursion) reports identifying the following information:
 - a. the identification of calendar days during which required data on emission rates or the operating parameters were not obtained, to include an identification of the emission rate(s) or operating parameter(s) not measured, the reason(s) for not obtaining the data, and a description of the corrective action(s) taken to prevent a reoccurrence;
 - b. the identification of calendar days during which there was a malfunction of the HMIWI or its control equipment, a description of the malfunction, the time and duration of the malfunction, the corrective action(s) taken, and any measure(s) implemented to prevent a reoccurrence; and
 - c. the identification of calendar days during which any emission rate or operating parameter exceeded the applicable limits, with a description of the exceedance(s), reason(s) for such exceedance(s), a description of the corrective action(s) taken, and any measure(s) implemented to prevent a reoccurrence.

These reports shall be submitted by February 1, May 1, August 1, and November 1 of each year and shall cover the data obtained during the previous calendar quarters.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-75-05(B)]

- (8) The permittee shall submit semiannual reports for the HMIWI containing the information specified below:
 - a. The values for the site-specific operating parameters established during either the initial performance testing or most recent performance test as petitioned by the permittee, demonstrating the HMIWI was in compliance;

- b. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter pursuant to §62.14453, and as identified in section c)(15) above recorded for the 6-month period being reported;
- c. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded pursuant to §62.14453 during the preceding three semiannual reporting periods, in order to provide a summary of the performance of the HMIWI over a 2-year period;
- d. Any information recorded under §62.14460(c) through (e) for the 6-month period being reported which identifies the following:
 - i. Identification of calendar days during which required data on emission rates or the operating parameters were not obtained, to include an identification of the emission rates or operating parameters not measured, the reason(s) for not obtaining the data, and a description of the corrective action(s) taken to prevent a reoccurrence;
 - ii. Identification of calendar days, times and durations of malfunctions, and a description of the malfunction and the corrective action taken; and
 - iii. Identification of calendar days for which data on emissions rates or operating parameters exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances and a description of corrective actions taken.
- e. Any information recorded under §62.14460(c) through (e) during the preceding three semiannual reporting periods, in order to provide a summary of the performance of the HMIWI over a 2-year period;
- f. The results of any performance test conducted during the reporting period;
- g. If no exceedances or malfunctions occurred during the 6-month period being reported, a statement that no exceedances occurred during the reporting period;
- h. Any use of the bypass stack, duration of such use, reason for malfunction and corrective action taken;
- i. 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 EPA Administrator (or delegated enforcement authority);
- j. Records of the annual air pollution control device inspections, any required maintenance and any repairs not completed within 10 days of an inspection or the time frame established by the EPA Administrator (or delegated enforcement authority);

- k. Concentrations of CO, PM, HCl, Pb, Cd, Hg and dioxin/furan, as applicable, as determined by the CEMS or continuous automated sampling system, as applicable; and
- l. Any activation of the radioactivity alarm, the reason for the alarm, and the corrective action(s) taken.

The semiannual reports shall be submitted no more than 6 months following the previous report and all reports shall be signed by the facility manager.

[Authority for term: §62.14463 and §62.14464]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

PM shall not exceed 25 mg PM/dscm (0.011 grain PM/dscf) of exhaust gases, corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 or Method 29, or by an alternative method approved by the Ohio EPA.

- b. Emission Limitation:

CO emissions shall not exceed 11 ppm by volume as a 12-hour rolling average, calculated as specified in EPA Reference Method 19, corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 10 or 10B, or by an alternative method approved by the Ohio EPA.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

c. Emission Limitation:

D/F emissions shall not exceed 9.3 ng/dscm (4.1 grains/billion dscf) of total D/F or 0.054 ng/dscm (0.024 grain/billion dscf) expressed as TEQ, corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 23, or by an alternative method approved by the Ohio EPA.

d. Emission Limitation:

HCl emissions shall not exceed 6.6 ppm by volume, corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 26 or 26A, or by an alternative method approved by the Ohio EPA.

e. Emission Limitation:

SO₂ emissions shall not exceed 9.0 ppm by volume, corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 or 6C, or by an alternative method approved by the Ohio EPA.

f. Emission Limitation:

NO_x emissions shall not exceed 140 ppm by volume, corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 7 or 7E, or by an alternative method approved by the Ohio EPA.

g. Emission Limitation:

Pb and Pb compound emissions (measured as Pb) shall not exceed 0.036 mg/dscm (0.016 gr/1000 dscf), corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 29, or by an alternative method approved by the Ohio EPA.

h. Emission Limitation:

Cd and Cd compound emissions (measured as Cd) shall not exceed 0.0092 mg/dscm (0.0040 gr/1000 dscf), corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 29, or by an alternative method approved by the Ohio EPA.

i. Emission Limitation:

Hg and Hg compound emissions (measured as Hg) shall not exceed 0.018 mg/dscm (0.0079 gr/1000 dscf), corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 29, or by an alternative method approved by the Ohio EPA.

j. Emission Limitation:

As and As compound emissions shall not exceed 0.21 mg/dscm (0.092 gr/1000 dscf), corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 29, or by an alternative method approved by the Ohio EPA.

k. Emission Limitation:

Be and Be compound emissions shall not exceed 0.026 mg/dscm (0.011 gr/1000 dscf), corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 29, or by an alternative method approved by the Ohio EPA.

I. Emission Limitation:

Cr and Cr compound emissions shall not exceed 0.075 mg/dscm (0.033 gr/1000 dscf), corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 29, or by an alternative method approved by the Ohio EPA.

m. Emission Limitation:

Ni and Ni compound emissions shall not exceed 0.65 mg/dscm (0.284 gr/1000 dscf), corrected to 7% oxygen on a dry basis at standard conditions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 29, or by an alternative method approved by the Ohio EPA.

n. Emission Limitation:

There shall be no visible emissions from the exhaust stack serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the opacity standard shall be demonstrated through the use of EPA Reference Method 9 of 40 CFR Part 60, Appendix A-4 to measure stack opacity pursuant to 40 CFR §62.14452(i).

[Authority for term: OAC rules 3745-77-07(C)(1), 3745-75-06, and 3745-15-04]

- (2) The permittee shall conduct, or have conducted, periodic emission testing for this emissions unit in accordance with the following requirements:
- a. The permittee must conduct an initial performance test for PM, opacity, CO, dioxin/furan, HCl, Pb, Cd, Hg, SO₂, and NO_x using the test methods and procedures outlined in 40 CFR Part 62.14452.
 - b. The permittee must conduct the initial performance test within 180 days after the final compliance date of October 6, 2014 per 40 CFR Part 62.14470(b)(3).
 - c. The tests for opacity, PM, CO and HCl shall be conducted annually (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in this permit. If all three performance tests over a three year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two years. At a minimum, a performance test

for PM, CO, or HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PE, CO and HCl), the owner or operator may forego a performance test for that pollutant for an additional two years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit. The annual test for opacity shall be conducted in any case.

- d. Per 40 CFR Part 62.14451(e)(1) through (3), the permittee may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the following conditions are met:
 - i. Your previous emissions tests must have been conducted using the applicable procedures and test methods listed in 40 CFR Part 62.14452. Previous emissions test results obtained using the EPA-accepted voluntary consensus standards are also acceptable.
 - ii. The HMIWI at your facility must currently be operated in a manner (e.g., with charge rate, secondary chamber temperature, etc.) that would be expected to result in the same or lower emissions than observed during the previous emissions test(s), and the HMIWI may not have been modified such that emissions would be expected to exceed the results from previous emissions test(s).
 - iii. The previous emissions test(s) must have been conducted in 1996 or later.
- e. All performance tests must consist of a minimum of three test runs conducted under representative operating conditions;
- f. The minimum sample time must be 1 hour per test run unless otherwise indicated in 40 CFR Part 62.14452;
- g. You must use EPA Reference Method 1 of 40 CFR Part 60, Appendix A-1 to select the sampling location and number of traverse points;
- h. You must use EPA Reference Method 3, 3A or 3B of 40 CFR Part 60, Appendix A-2 for gas composition analysis, including measurement of oxygen concentration. You must use EPA Reference Method 3, 3A or 3B of 40 CFR Part 60, Appendix A-2 simultaneously with each reference method. You may use ASME PTC-19-10-1981-Part 10 (incorporated by reference in 40 CFR 60.17) as an alternative to EPA Reference Method 3B or by an alternative method approved by OEPA;
- i. You must adjust pollutant concentrations to 7 percent oxygen using the following equation:

$$C_{adj} = C_{meas} (20.9 - 7) / (20.9 - \%O_2) \quad (\text{Eq. 1})$$

Where:

Cadj = pollutant concentration adjusted to 7 percent oxygen;

Cmeas = pollutant concentration measured on a dry basis at standard conditions
(20.9-7) = 20.9 percent oxygen—7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

%O₂ = oxygen concentration measured on a dry basis at standard conditions, percent.

- j. You must use EPA Reference Method 5 of 40 CFR Part 60, Appendix A-3 or Method 26A or Method 29 of 40 CFR Part 60, Appendix A-8 to measure particulate matter (PM) emissions. You may use bag leak detection systems, as specified in 40 CFR Part 62.14454(e), or PM continuous emissions monitoring systems (CEMS), as specified in paragraph (o) of 40 CFR Part 62.14452, as an alternative to demonstrate compliance with the PM emissions limit or by an alternative method approved by OEPA;
- k. You must use EPA Reference Method 6 or 6C of 40 CFR Part 60, Appendix A-4 to measure SO₂ emissions or by an alternative method approved by OEPA;
- l. You must use EPA Reference Method 7 or 7E of 40 CFR Part 60, Appendix A-4 to measure NO_x emissions or by an alternative method approved by OEPA;
- m. You must use EPA Reference Method 9 of 40 CFR Part 60, Appendix A-4 to measure stack opacity. You may use bag leak detection systems, as specified in 40 CFR Part 62.14454(e), or PM CEMS, as specified in paragraph (o) of 40 CFR Part 62.14452, as an alternative to demonstrate compliance with the opacity requirements or by an alternative method approved by OEPA;
- n. You must use EPA Reference Method 10 or 10B of 40 CFR Part 60, Appendix A-4 to measure the CO emissions or by an alternative method approved by OEPA. You may use CO CEMS, as specified in paragraph (o) of 40 CFR Part 62.14452, as an alternative to demonstrate compliance with the CO emissions limit;
- o. You must use EPA Reference Method 23 of 40 CFR Part 60, Appendix A-7 to measure total dioxin/furan emissions or by an alternative method approved by OEPA. The minimum sample time must be 4 hours per test run. You may elect to sample dioxins/furans by installing, calibrating, maintaining and operating a continuous automated sampling system, as specified in paragraph (p) of 40 CFR Part 62.14452, as an alternative to demonstrate compliance with the dioxin/furan emissions limit. If you have selected the toxic equivalency (TEQ) standards for dioxin/furans under 40 CFR Part 62.14411, you must use the following procedures to determine compliance:

- i. Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23 of 40 CFR Part 60, Appendix A-7 or by an alternative method approved by OEPA;
 - ii. For each dioxin/furan congener measured in accordance with paragraph (k)(1) of this section, multiply the congener concentration by its corresponding TEQ factor specified in Table 2 of 40 CFR Part 62, Subpart HHH;
 - iii. Sum the products calculated in accordance with paragraph (k)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of TEQ.
- p. You must use EPA Reference Method 26 or 26A of 40 CFR Part 60, Appendix A-8 to measure HCl emissions or by an alternative method approved by OEPA. You may use HCl CEMS as an alternative to demonstrate compliance with the HCl emissions limit;
- q. You must use EPA Reference Method 29 of 40 CFR Part 60, Appendix A-8 to measure Pb, Cd and Hg emissions or by an alternative method approved by OEPA. You may use ASTM D6784-02 (incorporated by reference in 40 CFR 60.17) as an alternative to EPA Reference Method 29 for measuring Hg emissions. You may also use Hg CEMS, as specified in paragraph (o) of 40 CFR Part 62.14452, or a continuous automated sampling system for monitoring Hg emissions, as specified in paragraph (q) of 40 CFR Part 62.14452, as an alternative to demonstrate compliance with the Hg emissions limit. You may use multi-metals CEMS, as specified in paragraph (o) of 40 CFR Part 62.14452, as an alternative to EPA Reference Method 29 to demonstrate compliance with the Pb, Cd or Hg emissions limits;
- r. You must use EPA Reference Method 22 of 40 CFR Part 60, Appendix A-7 to measure fugitive ash emissions and determine compliance with the fugitive ash emissions limit, as applicable, under 40 CFR Part 60.52c(c) or by an alternative method approved by OEPA. The minimum observation time must be a series of three 1-hour observations;
- s. If you are using a CEMS to demonstrate compliance with any of the emissions limits under 40 CFR Part 62.14411 or 62.14412, you:
- i. Must determine compliance with the appropriate emissions limit(s) using a 12-hour rolling average, calculated as specified in section 12.4.1 of EPA Reference Method 19 of 40 CFR Part 60, Appendix A-7. Performance tests using EPA Reference Methods are not required for pollutants monitored with CEMS.
 - ii. Must operate a CEMS to measure oxygen concentration, adjusting pollutant concentrations to 7 percent oxygen as specified in paragraph (e) of 40 CFR Part 62.14452.

- iii. Must operate all CEMS in accordance with the applicable procedures under appendices B and F of 40 CFR Part 60. For those CEMS for which performance specifications have not yet been promulgated (HCl, multi-metals), this option takes effect on the date a final performance specification is published in the Federal Register or the date of approval of a site-specific monitoring plan.
- iv. May substitute use of a CO CEMS for the CO annual performance test and minimum secondary chamber temperature to demonstrate compliance with the CO emissions limit.
- v. May substitute use of an HCl CEMS for the HCl annual performance test, minimum HCl sorbent flow rate and minimum scrubber liquor pH to demonstrate compliance with the HCl emissions limit.
- vi. May substitute use of a PM CEMS for the PM annual performance test and minimum pressure drop across the wet scrubber with venturi, if applicable, to demonstrate compliance with the PM emissions limit.
- t. If you are using a continuous automated sampling system to demonstrate compliance with the dioxin/furan emissions limits, you must record the output of the system and analyze the sample according to EPA Reference Method 23 of 40 CFR Part 60, Appendix A-7. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. If you elect to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Reference Method 23 of 40 CFR Part 60, Appendix A-7, you must install, calibrate, maintain and operate a continuous automated sampling system and comply with the requirements specified in 40 CFR 60.58b(p) and (q) of subpart Eb;
- u. If you are using a continuous automated sampling system to demonstrate compliance with the Hg emissions limits, you must record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet appropriate performance criteria. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to Hg from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. If you elect to continuously sample Hg emissions instead of sampling and testing using EPA Reference Method 29 of 40 CFR Part 60, Appendix A-8, or an approved alternative method for measuring Hg emissions, you must install, calibrate, maintain and operate a continuous automated sampling system and comply with the requirements specified in 40 CFR 60.58b(p) and (q) of subpart Eb;
- v. Use of the bypass stack during a performance test will invalidate the performance test; and
- w. The test(s) shall be conducted at or near the maximum charge rate, unless otherwise specified or approved by the Ohio EPA, while burning representative

waste. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of the performance test and a malfunction during testing shall invalidate the results. The permittee shall make available to the Ohio EPA Northeast District Office, upon request, any records that may be necessary to determine the conditions of the performance tests.

[Authority for term: 40 CFR Part 62, Subpart HHH and OAC rules 3745-77-07(C)(1), 3745-75-06(F) and 3745-15-04]

- (3) The Director (Ohio EPA Northeast District Office) may request a performance test or repeat performance test at any time, if in the Director's judgment there may be a violation of any applicable emission standard or if there has been a change in the operation of the HMIWI that may cause an increase in emissions due to a change in waste streams, infectious waste generators, or other operating conditions. Therefore, following the initial compliance demonstration and if required by the Director, the permittee shall also conduct performance testing of the HMIWI for SO₂, NO_x, D/F, As, Be, Cd, Cr, Pb, Hg, and/or Ni in order to demonstrate compliance with the limitations contained in this permit. The following applicable method(s) shall be used if it is determined a compliance demonstration is required for one or more of these pollutants:

Method 6 or 6C of 40 CFR Part 60, Appendix A to measure SO₂ emissions, or by an alternative method approved by OEPA;

Method 7 of 40 CFR Part 60, Appendix A, or by an alternative method approved by OEPA to measure NO_x emissions;

Method 23 of 40 CFR Part 60, Appendix A, or by an alternative method approved by OEPA to measure total dioxin/furan emissions. The minimum sample time shall be 4 hours per test run; and

Method 29 of 40 CFR Part 60, Appendix A, or by an alternative method approved by OEPA to measure Pb, Cd, Hg, As, Be, Cr, and Ni emissions.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 90 days following completion of the test(s). The permittee may



Final Permit-to-Install
Stericycle Inc
Permit Number: P0119097
Facility ID: 0278080634
Effective Date:8/20/2015

request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-75-06, and OAC rule 3745-15-04]

g) Miscellaneous Requirements

- (1) None.