

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

12/13/2013

Certified Mail

Patricia Lawson
Ross Incineration Services, Inc.
36790 Giles Road
Grafton, OH 44044-9752

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0247050278
Permit Number: P0114902
Permit Type: OAC Chapter 3745-31 Modification
County: Lorain

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
Yes	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)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Ohio EPA-NEDO; Canada



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Ross Incineration Services, Inc.**

Facility ID:	0247050278
Permit Number:	P0114902
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	12/13/2013
Effective:	12/13/2013



Division of Air Pollution Control
Permit-to-Install
for
Ross Incineration Services, Inc.

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Final Permit-to-Install
Ross Incineration Services, Inc.
Permit Number: P0114902
Facility ID: 0247050278
Effective Date: 12/13/2013

Authorization

Facility ID: 0247050278
Facility Description: Treatment, Storage, Disposal Facility for Hazardous Waste
Application Number(s): A0048029
Permit Number: P0114902
Permit Description: Modification to the incinerator permit to increase the annual Nitrogen Oxides emissions.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$3,750.00
Issue Date: 12/13/2013
Effective Date: 12/13/2013

This document constitutes issuance to:

Ross Incineration Services, Inc.
36790 Giles Road
Grafton, OH 44044-9752

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)425-9171

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

A handwritten signature in black ink, appearing to read "Scott J. Nally".

Scott J. Nally
Director



Final Permit-to-Install
Ross Incineration Services, Inc.
Permit Number: P0114902
Facility ID: 0247050278
Effective Date: 12/13/2013

Authorization (continued)

Permit Number: P0114902

Permit Description: Modification to the incinerator permit to increase the annual Nitrogen Oxides emissions.

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:	Thermal Oxidizer
Superseded Permit Number:	P0104620
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Ross Incineration Services, Inc.
Permit Number: P0114902
Facility ID: 0247050278
Effective Date: 12/13/2013

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
Ross Incineration Services, Inc.
Permit Number: P0114902
Facility ID: 0247050278
Effective Date: 12/13/2013

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Ross Incineration Services, Inc.
Permit Number: P0114902
Facility ID: 0247050278
Effective Date: 12/13/2013

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.
2. The following emissions unit contained in this permit is subject to 40 CFR Part 63, Subpart EEE: N001. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.



Final Permit-to-Install
Ross Incineration Services, Inc.
Permit Number: P0114902
Facility ID: 0247050278
Effective Date: 12/13/2013

C. Emissions Unit Terms and Conditions



1. N001, Thermal Oxidizer

Operations, Property and/or Equipment Description:

(N001) - Rotary kiln for hazardous waste incineration. Air contaminant emissions are controlled by quench chamber, cyclone separator, radial flow scrubber, gas-liquid contactor, and two wet electrostatic precipitators.

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) b)(1)c, b)(2)d, d)(19), d)(20) and d)(21)

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.	ORC 3704.03(T)	Nitrogen oxides emissions shall not exceed 18.21 tons per month averaged over a rolling, 12-month period.
b.	OAC rule 3745-31-05(A)(3)	Particulate emissions from the stack shall not exceed 50.37 tons per year. Sulfur dioxide emissions shall not exceed 15.1 pounds per hour and 66.14 tons per year. Carbon monoxide emissions shall not exceed 179.6 tons per year. Hydrocarbon emissions shall not exceed 22.56 tons per year Lead emissions shall not exceed 3.0 tons per year. Hydrochloric acid and chlorine gas emissions, expressed as hydrochloric acid equivalents, shall not exceed 144.06 tons per year. Mercury emissions shall not exceed 1.13 tons per year.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Beryllium emissions shall not exceed 0.004 ton per year.</p> <p>Dioxin and furan emissions shall not exceed 2.3×10^{-6} ton per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).</p> <p>See b)(2)e.</p>
c.	OAC rule 3745-31-05(D)	Nitrogen oxides emissions shall not exceed 218.5 tons per rolling, 365-day period. See b)(2)d.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-09	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	OAC rule 3745-17-07(B)	This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
h.	OAC rule 3745-17-08(B)	The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).
i.	40 CFR Part 63, Subpart EEE (Final MACT standards for hazardous waste combustors)	<p>Dioxins and furans emissions shall not exceed 0.40 ng TEQ/dscm, corrected to 7% oxygen.</p> <p>Mercury emissions shall not exceed 130 ug/dscm, corrected to 7% oxygen.</p> <p>Lead and cadmium emissions, combined,</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>shall not exceed 230 ug/dscm, corrected to 7% oxygen.</p> <p>Arsenic, beryllium and chromium emissions, combined, shall not exceed 92 ug/dscm, corrected to 7% oxygen.</p> <p>Carbon monoxide emissions shall not exceed 100 ppm by volume, over an hourly rolling average, on a dry basis, corrected to 7% oxygen.</p> <p>Hydrocarbon emissions shall not exceed 10 ppm by volume during the DRE test run or equivalent, over an hourly rolling average, on a dry basis, corrected to 7% oxygen, reported as propane.</p> <p>Hydrochloric acid and chlorine gas emissions, combined, expressed as a chloride equivalent, shall not exceed 32 ppm by volume, on a dry basis, corrected to 7% oxygen.</p> <p>Particulate emissions from the stack shall not exceed 0.013 grain/dscf, corrected to 7% oxygen.</p> <p>See b)(2)b and b)(2)c.</p>
j.	40 CFR Part 61, Subpart C (NESHAP for Beryllium)	Beryllium emissions shall not exceed 10 grams per 24 hour period.
k.	40 CFR Part 61, Subpart FF (NESHAP for Benzene Waste Operations)	See b)(2)f, d)(16) and e)(6).

*TEQ is the toxicity equivalence, the international method of relating the toxicity of various dioxin/furan congeners to the toxicity of 2,3,7,8 - tetrachlorodibenzo-p-dioxin

(2) Additional Terms and Conditions

- a. Total maximum waste feed rate to the kiln and to an existing main combustion chamber is 26,057 pounds per hour, including the weight of containers, and 105,120 tons per year.
- b. This emissions unit is a hazardous waste combustor and shall comply with all applicable requirements of 40 CFR, Part 63 Maximum Achievable Control Technology (MACT), Subpart EEE, National Emission Standards for Hazardous Waste Combustors.



- c. This emissions unit is not permitted to burn and shall not burn dioxin-listed hazardous wastes, including waste codes of F020, F021, F022, F023, F026 or F027.
- d. The emissions of nitrogen oxides from this emissions unit shall not exceed 218.5 tons, based upon a cumulative, rolling 365-day summation of the nitrogen oxides emissions.
- e. The incinerator system shall achieve a destruction and removal efficiency (DRE) of 99.99% for each selected principal organic hazardous constituent (POHC).
- f. The permittee shall monitor and maintain the total annual benzene quantity from facility waste to less than 10 megagrams per year. The total annual benzene quantity is determined based upon the quantity of benzene in the waste before entering the incinerator. If it is determined that the benzene quantity has exceeded or will exceed 10 megagrams per year, the permittee shall demonstrate compliance with 61.342(b) and 61.342(c) of the NESHAP.
- g. The permittee shall maintain a written quality assurance/quality control plan for the continuous CO, O₂ and NO_x monitoring systems, designed to ensure continuous valid and representative readings of CO, O₂ and NO_x 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, O₂ NO_x monitoring systems must be kept on site and available for inspection during regular office hours.

 The plan shall include the requirement to conduct quarterly 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.
- h. The CO, O₂ and NO_x continuous emission monitoring systems consist 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.
- i. The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart EEE, including the following sections:

40 CFR 63.1206(b)(4)	Extension of Compliance with Emission Standards
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c) Operational Restrictions

- (1) The incinerator, including all associated equipment and grounds, shall be designed, operated and maintained to prevent the emissions of objectionable odors.



- (2) The permittee shall operate and maintain a slag and bottom ash collection system that will eliminate fugitive dust emissions. Trucks hauling slag and bottom ash shall be covered prior to leaving the plant property.
- (3) Start-up of the incinerator shall begin with the heating of the cold combustion zone with:
 - a. natural gas,
 - b. propane,
 - c. distillate fuel oil,
 - d. fuels meeting the comparable fuels specifications set forth in OAC rule 3745-51-38,
 - e. used oil meeting the specifications set forth in OAC rule 3745-279-11, or
 - f. any purchased material that meets the comparable fuel or used oil specifications.

For this permit condition "start-up" includes all time during start-up, shutdown and upset conditions in which the incinerator temperature is less than the minimum temperature.

Alternate fuels may not be used unless approved by the Ohio EPA.

- (4) All used oil burned in emissions unit N001 during startup shall meet the following specifications, in accordance with OAC rule 3745-279-11:

Contaminant/Property	Allowable Specifications
Arsenic	5 ppm, maximum
Cadmium	2 ppm, maximum
Chromium	10 ppm, maximum
Lead	100 ppm, maximum
PCB's	2 ppm, maximum
Total Halogens	4000 ppm, maximum*
Mercury	1 ppm, maximum
Flash Point	100 degrees Fahrenheit, minimum

* Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR 279.10(b)(1)(ii) and OAC rule 3745-279-10(B)(1)(b). Therefore, during startup, the permittee may burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm, maximum) only if the permittee can demonstrate the used oil does not contain any hazardous waste pursuant to OAC rule 3745-279-63.



- (5) The permittee shall comply with all State and Federal laws and regulations including, but not limited to, the Toxic Substances Control Act of 1979. No polychlorinated biphenyls (PCBs) in excess of 50 ppm shall be incinerated.
- (6) The permittee shall maintain the control equipment, associated with this emissions unit, in accordance with the manufacturers' operating manuals, with any adjustments or modifications deemed necessary by the permittee, and as required by the standards promulgated in 40 CFR 63, Subpart EEE.
- (7) The permittee shall minimize or eliminate visible fugitive particulate emissions from the kiln and main combustion chamber by maintaining the maximum combustion zone pressure lower than ambient pressure, by means of an induced draft fan.
- (8) The permittee shall establish and document the hourly rolling average of each of these parameters including, but not limited to (as per the final rule):
 - a. maximum waste feedrate;
 - b. minimum combustion chamber temperature;
 - c. minimum scrubber pH in the gas-liquid contactor;
 - d. minimum pressure drop across the radial-flow scrubber and gas-liquid contactor;
 - e. maximum flue gas flow rate;
 - f. minimum scrubber water flow rate in the radial-flow scrubber and gas-liquid contactor; and
 - g. minimum liquid to gas ratio in the radial-flow scrubber, and/or minimum liquid feed pressure to the gas-liquid contactor.

These parameters shall also be established as required by 40 CFR 63.1209, during the most recent compliance demonstration, and reported in the Notification of Compliance (NOC).

- (9) Compliance with the hourly rolling average limits for the above parameters (hazardous waste feedrate, combustion chamber temperature, gas-liquid contactor pH, pressure drop across the radial-flow scrubber and gas-liquid contactor, flue gas flow rate, scrubber water flow rate in the radial-flow scrubber and gas-liquid contactor, liquid to gas ratio in the radial-flow scrubber and/or the liquid feed pressure to the gas-liquid contactor) shall be demonstrated by each continuous monitoring system. The hourly rolling average shall be calculated as required in 40 CFR 63.1209(a)(6) and (b)(5) of the rule: each minute of operation would constitute a new hourly rolling average.
- (10) The permittee shall operate the wet electrostatic precipitator (WESP) controller in a manner that maximizes the particulate removal performance of the unit. This shall include but not be limited to setting the controller to automatically maximize effective secondary voltage, while considering the manufacturer's recommended maximum spark rate. The permittee shall not arbitrarily or artificially lower the WESP controller set



points, except for the purposes of particulate removal performance testing or to optimize particulate removal performance by minimizing sparking.

- (11) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart EEE, including the following sections:

63.1206(b)(1)	Times when standards are not applicable
63.1206(b)(7)	Destruction Removal Efficiency
63.1206(c)(2)	Startup, shutdown, malfunction plan
63.1206(c)(3)	Automatic Waste Feed Cutoff
63.1206(c)(5)	Combustion System Leaks
63.1206(c)(6)	Operator Training and Certification
63.1206(c)(7)	Operation and Maintenance Plan
63.1207(k)	Failure to Submit a Timely NOC

- (12) For the provisions of 40 CFR Part 61, Subpart E (NESHAP for Mercury) not to be applicable, the permittee shall not accept wastewater treatment plant sludge, as defined in 40 CFR Part 61, Subpart E.

d) Monitoring and/or Recordkeeping Requirement

- (1) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous CO, O₂, NO_x monitoring systems have been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6 for NO_x, Performance Specification 4 or 4a (for CO) and Performance Specification 3 (for O₂). The letter/document of certification shall be made available to the Director or the Ohio EPA Northeast District Office upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

- (2) The permittee shall operate and maintain equipment to continuously monitor and record CO and NO_x emissions from this emissions unit in units of the applicable standard(s) and record O₂ emitted from this emissions unit in percent O₂. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.
- (3) The permittee shall maintain records of data obtained by the continuous CO, O₂, and NO_x monitoring system including, but not limited to:



- a. emissions of CO and NO_x in parts per million on an instantaneous (one-minute) basis;
- b. percent O₂ on an instantaneous (one-minute) basis;
- c. emissions of CO and NO_x in pounds per hour and in all units of the applicable standard(s) in the appropriate averaging period;
- d. results of quarterly cylinder gas audits;
- e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- g. hours of operation of the emissions unit, continuous CO, O₂ and NO_x monitoring system, and control equipment;
- h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO, O₂ and NO_x monitoring system;
- i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO, O₂ and NO_x monitoring system; and
- j. the reason (if known) and the corrective actions taken (if any) for each such event in (h) and (i).

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.

- (4) Following any compliance testing activities conducted to satisfy the requirements of the standard and upon postmark of the NOC for each such demonstration, the operating parameter limits identified in the NOC shall replace those limits identified in the Documentation of Compliance (DOC) or a previous NOC. Record keeping demonstrating compliance with each of the hourly rolling average limits for each of these parameters shall be maintained using the appropriate continuous monitoring systems and associated recording equipment.
- (5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the water flow rate through the radial-flow scrubber and the gas-liquid contactor while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the scrubber water flow rate, in gallons per minute, on a continuous basis.
- (6) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pH of the scrubber liquor in the gas-liquid contactor while the emissions unit is in operation. The pH monitor and recorder shall be installed,



calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

- (7) The permittee shall maintain the following records for the WESP(s) when the emissions unit is in operation:
- a. The permittee shall monitor and record the following information on an hourly basis:
 - i. the average secondary voltage, in kilovolts, and the average secondary current in milliamps, for each transformer rectifier (TR) set in the WESP(s);
 - ii. the average power input (in Volt-Amperes {VA}) of each TR set for each hour (calculated by multiplying the average secondary voltage {in kilovolts} by the average secondary current {in amps} for each TR set); and
 - iii. the average total power input to the WESP(s) for each hour (add together the average power inputs for the TR sets operating during the hour).
 - b. The permittee shall record the following information for each day of operation:
 - i. the average total combined power input to the WESP(s) as 1-hour averages when the emissions unit was in operation;
 - ii. the duration of any downtime for the WESP(s) monitoring equipment for secondary voltage and current, not maintained as specified above; and each WESP section that is out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation; and
 - iii. any 1-hour period of time in which the average total combined power input (in VA) to all fields of the WESP(s), was less than the operating limit specified in c)(10).

The monitors and recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the parameters they were meant to record.

- (8) The permittee shall develop a plan for the routine sampling and laboratory analysis of incoming wastes for the purpose of preventing polychlorinated biphenyls (PCBs), in excess of 50 ppm, from being incinerated in the kiln and the secondary combustion chamber. Such plan shall include as a minimum:
- a. a copy of the standard supplier contract which prohibits the delivery of PCBs in excess of 50 ppm to the facility; and



- b. a copy of written provision for PCB analysis from an Ohio EPA-approved laboratory.

All laboratory analyses shall be reported to the permittee directly from the laboratory and shall be retained on site and available for inspection by the Ohio EPA for a minimum of five (5) years.

- (9) The permittee shall record the following information for each Emergency Safety Vent (ESV) opening that occurs while burning hazardous waste:
 - a. the date;
 - b. the time the bypass vent was opened and closed;
 - c. the amount of waste in the kiln and the main combustion chamber at the time the vent opened;
 - d. an estimate of air emissions, using the best available data, including emissions of particulate emissions, hydrocarbons, hydrogen chloride, sulfur dioxide, nitrogen oxides, carbon monoxide, beryllium, lead, mercury, arsenic, cadmium and chromium; and
 - e. the cause(s) of the ESV opening.
- (10) The permittee shall maintain daily records of the following operating parameters, based on an hourly rolling average, unless otherwise specified:
 - a. the maximum waste feed rate, not to exceed 26,057 pounds per hour, including the weight of containers, and 105,120 tons per year
- (11) The permittee shall maintain monthly records of the following information:
 - a. the rolling monthly emissions rate of nitrogen oxides averaged over a 12-month period (tons);
 - b. the hours of operation for each month; and
 - c. total tons of waste fed to the incinerator.
- (12) The following information shall be recorded electronically and made accessible via modem:
 - a. nitrogen oxides emissions (ppm and lbs/hr, as a one minute block average); and
 - b. CO emissions (raw ppm, ppm corrected to 7% oxygen on a dry basis, and pounds per hour, on a one minute and 60-minute rolling average).
- (13) The permittee shall conduct Method 9 readings at least four days of each calendar week (Monday through Sunday) and for at least 30 minutes on each of the four days. The permittee may reduce the frequency of visual observations for this emissions unit



from four days each calendar week to weekly readings if the following conditions are met:

- a. for 1 full quarter, this emissions unit's visual observations indicate the emissions are representative of normal operations; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified in 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1)

The permittee shall revert to readings four days each calendar week for this emissions unit if the emissions are not representative of normal operations. The permittee may again reduce the frequency of visual observations from four days each calendar week to weekly after obtaining 1 full quarter of observations with visible emissions that are representative of normal operations for this emissions unit.

- (14) The permittee shall record all times fuels not listed in c)(3) and not approved by the Ohio EPA are used during incinerator start-up. For each shipment of used oil received for burning in this emissions unit during startup, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for the following:
- a. the date(s) of shipment or delivery;
 - b. the quantity of oil received;
 - c. the heat content, in BTU/lb;
 - d. the flash point, in degrees Fahrenheit (required only for used oil);
 - e. the arsenic content, in ppm (required only for used oil)
 - f. the cadmium content, in ppm (required only for used oil);
 - g. the chromium content, in ppm (required only for used oil);
 - h. the lead content, in ppm (required only for used oil);
 - i. the PCB content, in ppm (required only for used oil);
 - j. the total halogen content, in ppm (required only for used oil)
 - k. the mercury content, in ppm (required only for used oil); and
 - l. the sulfur content, in percent (%) by weight.

A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.



For each shipment of fuel received for burning in this emissions unit during start-up that is intended to meet the comparable fuels specifications set forth in OAC rule 3745-51-38, the permittee shall maintain records of the total quantity of such material received and the permittee's or supplier's analyses of the comparable fuels parameters.

For this condition, start-up shall have the same definition as in c)(3).

- (15) The permittee shall maintain daily records of the amount of each fuel burned in this emissions unit.
- (16) The permittee shall maintain daily records of the materials received for burning at the facility. The records shall contain, as a minimum, the following information:
 - a. name and address of the facility from which the material was received;
 - b. name and address of the facility from which the material was generated or blended;
 - c. date the material was received;
 - d. amount of material and type of container; and
 - e. description of the material including chemical composition.
- (17) The permittee shall determine the total annual benzene quantity from facility waste as required in 40 CFR 61.355, from the National Emission Standard for Benzene Waste Operations. The total annual benzene quantity from facility waste shall be calculated by adding together the annual benzene quantity for each waste stream generated during the year. The facility shall maintain records of all measurements, calculations, and other documentation used to determine the benzene content of each waste stream fed to this emissions unit.
- (18) The permittee shall maintain daily records of the rolling, 365-day summation of nitrogen oxides emissions (tons)
- (19) The permit to install for this emissions unit (N001) was evaluated based on the actual materials and the design parameters of emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the TSCREEN model. The predicted 1-hour maximum ground level concentration from the use of the TSCREEN model was compared to the Maximum Acceptable Ground Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

Ceiling Value (mg/m³): 7.46

Maximum Hourly Emission Rate (lbs/hr): 33.0



Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 13.7

MAGLC (ug/m3): 131

Pollutant: Mercury

TLV (mg/m3): 0.025

Maximum Hourly Emission Rate (lbs/hr): 1.85

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 0.594

MAGLC (ug/m3): 0.595

Pollutant: Lead

TLV (mg/m3): 0.05

Maximum Hourly Emission Rate (lbs/hr): 11.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.18

MAGLC (ug/m3): 1.19

- (20) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters; the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
- (21) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not



be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.
- (22) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- (23) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart EEE, including the following sections:

63.1206(c)(4)	ESV Openings
63.1206(c)(9)	Particulate Matter Detection System for ESP
63.1206(b)(11)	Hazardous Waste Residence Time
63.1209(a)	Continuous Emissions Monitoring Systems
63.1209(b)	Other Continuous Monitoring Systems
63.1209(c)	Analysis of Feedstreams
63.1209(f)	Operation and Maintenance of CMS
63.1209(g)	Alternative Monitoring Requirements other than CEMS
63.1209(i)	When an Operating Parameter is Applicable to Multiple Standards



63.1209(j)	Destruction Removal Efficiency
63.1209(k)	Dioxins and Furans
63.1209(l)	Mercury
63.1209(m)	Particulate Matter
63.1209(n)	Semivolatile Metals and Low Volatility Metals
63.1209(o)	Hydrogen Chloride and Chlorine Gas
63.1209(p)	Maximum Combustion Chamber Pressure
63.1209(q)	Operating Under Different Modes of Operation
63.1209(r)	Averaging Periods
63.1211(b)	Recordkeeping Requirements

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO, NO_x, and O₂ monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 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:
 - i. continuous O₂ monitoring system downtime and malfunction while the emissions unit was on line;
 - ii. NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, 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); and

- iii. 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 31, April 30, July 31, and October 31 of each year and shall include the following:
- i. the facility name and address;
 - ii. the manufacturer and model number of the continuous CO, O₂, NO_x and other associated monitors;
 - iii. a description of any change in the equipment that comprises the 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 and NO_x 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, O₂, and NO_x monitoring systems while the emissions unit was in operation;
 - viii. results and dates of quarterly 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, O₂, and NO_x 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 O₂, CO and NO_x monitoring system, emissions unit, and/or control equipment;
 - xii. the date, time, and duration of any downtime** of the continuous NO_x 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 if there is an exceedance of any applicable limit

- (3) The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of NO_x and CO values in excess of the limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x and CO emissions for the calendar quarter (in tons).
- (4) The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting all instances of continuous CO, NO_x and O₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.
- (5) If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.
- (6) The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting all instances of continuous O₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly



Final Permit-to-Install
Ross Incineration Services, Inc.
Permit Number: P0114902
Facility ID: 0247050278
Effective Date: 12/13/2013

report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.



- (7) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. All periods of time during which the 1-hour average total combined power input to all fields of the WESP(s) was less than that required in c)(10) and as recorded in d)(6).
 - b. All periods of time during which the total hourly waste feed to the kiln and main combustion chamber exceeded 26,057 pounds per hour, including the weight of containers, and 105,120 tons per year, excluding the exception described in c)(11). The report shall indicate the amount of waste fed during that period.
 - c. Any day in which records were not maintained of the waste feed analysis.
 - d. All periods of time during which waste with a concentration of greater than 50 ppm of PCB was fed to the kiln or to the main combustion chamber. The report shall indicate the amount of waste fed during that period and the PCB concentration.
 - e. All exceedances of the NO_x emission limitation, averaged over a rolling, 12-month period.
 - f. All exceedances of the cumulative rolling, 365-day NO_x emission limitation.
 - g. All times fuels other than those allowed by c)(3) are used during incinerator start-up. The permittee shall notify the Ohio EPA within thirty days (30) following the combustion of any used oil during startup that exceeds the used oil specifications found in c)(4) or combustion of any comparable fuel during start-up that exceeds the comparable fuels specifications set forth in OAC rule 3745-51-38. For this permit condition, start-up shall have the same definition as in c)(3).
- (8) The permittee shall submit reports on every ESV opening that occurs while hazardous waste is being combusted. These reports shall contain at a minimum:
- a. the date and the time(s) the bypass vent was opened and closed;
 - b. the amount of waste in the kiln and the main combustion chamber at the time the vent opened;
 - c. an estimate of air emissions, using the best available data, including emissions of particulate emissions, hydrocarbons, hydrogen chloride, sulfur dioxide, nitrogen oxides, carbon monoxide, beryllium, lead, mercury, arsenic, cadmium, and chromium; and
 - d. the cause(s) of the ESV opening.
- (9) The permittee shall submit quarterly deviation reports that
- a. identify each day in which a Method 9 reading(s) demonstrated an exceedance of the 20% opacity limit;



- b. describe any corrective actions taken to minimize or eliminate the visible particulate emissions, and;
 - c. indicate when Method 9 reading(s) were not conducted according to the required schedule. This report shall include the date, duration, and cause for the exceedance. These reports shall be submitted to the Northeast District Office of the Ohio EPA by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3-month period.
- (10) The permittee shall notify the Ohio EPA by April 7 of each year if the total annual benzene quantity equals or exceeds 10 megagrams per year.
- (11) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA Northeast District Office as are required pursuant to 40 CFR Part 63, Subpart EEE, including the following sections:

63.1206(b)(5)	Report changes in Design, Operation, or Maintenance
63.1207(j)	Notification of Compliance
63.1210	Notification Requirements
63.1211(a)	Reporting Requirements
63.1211(c)	Documentation of Compliance
63.1211(d)	Data Compression
63.1212(a)	Certification of Intent to Comply

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:
 Particulate emissions from the stack shall not exceed 0.013 grain per dry standard cubic foot corrected to 7% oxygen.
 - Applicable Compliance Method:
 Compliance shall be demonstrated in accordance with 63.1208(b)(6).



b. Emission Limitation:

Particulate emissions from the stack shall not exceed 50.37 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the results from the most recent stack test (pounds of particulate emissions per hour) by the total annual hours of operation, and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Nitrogen oxides emissions shall not exceed 18.21 tons per month averaged over a rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission records maintained by operating the CEMS for nitrogen oxides, provided that the system meets the requirements of 40 CFR Part 60, Appendix B, and through the record keeping requirements contained in this permit.

d. Emission Limitation:

The emissions of nitrogen oxides from this emissions unit shall not exceed 218.5 tons, based upon a cumulative, rolling 365-day summation of the nitrogen oxides emissions.

Applicable Compliance Method:

At the end of each day, the permittee shall add (or maintain the sum of) the daily records of the hourly NO_x emissions, from the previous 365-day period, as was documented by the continuous NO_x monitoring system. For any period of operating time not recorded by the continuous NO_x monitoring system, the average hourly emission rate from the closest period of time for which the monitor was properly operating will be added for the missing hours of operation not recorded.

e. Emission Limitation:

Sulfur dioxide emissions shall not exceed 15.1 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated by emissions testing using 40 CFR Part 60, Appendix A, Method 6C or equivalent method.



f. Emission Limitation:

Sulfur dioxide emissions shall not exceed 66.14 tons per year.

Applicable Compliance Method:

This limit was set at the potential of the unit by multiplying the allowable hourly emissions limit (15.1 lbs/hr) by the maximum possible operating hours (8760 hours/yr), and dividing by 2000 (lbs/ton). Therefore, provided that compliance with the hourly limit is met, compliance with the annual limit is also met. In order to accurately report annual emissions, the actual hours of operation and the pound per hour results from the most recent stack test may be used to calculate emissions for reporting requirements.

g. Emission Limitation:

Carbon monoxide emissions shall not exceed 100 ppm by volume, over an hourly rolling average, on a dry basis, and corrected to 7% oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission records maintained by operating the CEMS for carbon monoxide, provided that system meets the requirements of 40 CFR Part 60, Appendix B, and through the record keeping requirements contained in this permit. If required by the Ohio EPA, 40 CFR Part 60, Appendix A, Method 10 testing shall be conducted in order to demonstrate compliance.

h. Emission Limitation:

Carbon monoxide emissions shall not exceed 179.6 tons per year.

Applicable Compliance Method:

At the end of each year the permittee shall add the daily (or if totaled monthly) records of the sum of each hourly record of CO emissions, as was documented by the continuous CO monitoring system. For any period of operating time not recorded by the continuous CO monitoring system, the average hourly emission rate from the closest period of time for which the monitor was properly operating will be added for the missing hours of operation not recorded.

i. Emission Limitation:

Hydrocarbon emissions shall not exceed 10 ppm by volume, over an hourly rolling average, on a dry basis, corrected to 7% oxygen, reported as propane.

Applicable Compliance Method:

Compliance shall be demonstrated through emissions testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.



j. Emission Limitation:

Hydrocarbon emissions shall not exceed 22.56 tons per year.

Applicable Compliance Method:

This limit was set at the potential of the unit by multiplying the allowable hourly emissions limit by the maximum possible operating hours (8760 hours/yr), and dividing by 2000 (lbs/ton). Therefore, provided that compliance with the hourly limit is met, compliance with the annual limit is also met. In order to accurately report annual emissions, the actual hours of operation and the pound per hour results from the most recent stack test may be used to calculate emissions for reporting requirements.

k. Emission Limitation:

Lead and cadmium emissions, combined, shall not exceed 230 ug/dscm, corrected to 7% oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emissions testing performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 29.

l. Emission Limitation:

Hydrochloric acid and chlorine gas emissions, combined, expressed as a chloride equivalent, shall not exceed 32 ppm by volume, on a dry basis, corrected to 7% oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emissions testing performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 26A, 320 and/or 321.

m. Emission Limitation:

Hydrochloric acid and chlorine gas emissions combined shall not exceed 144.06 tons/year.

Applicable Compliance Method:

This limit was set at the potential of the unit by multiplying the allowable hourly emissions limit by the maximum possible operating hours (8760 hours/yr), and dividing by 2000 (lbs/ton). Therefore, provided that compliance with the hourly limit is met, compliance with the annual limit is also met. In order to accurately report annual emissions, the actual hours of operation and the pound per hour results from the most recent stack test may be used to calculate emissions for reporting requirements.



n. Emission Limitation:

Mercury emissions shall not exceed 130 ug/dscm corrected to 7% oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emissions testing performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 29.

o. Emission Limitation:

Beryllium emissions shall not exceed 10 grams per 24 hour period and 0.004 ton per year. In addition, arsenic, beryllium and chromium emissions together shall not exceed 92 ug/dscm, corrected to 7% oxygen.

Applicable Compliance Method:

Compliance with the short-term beryllium emission limitation shall be demonstrated based upon emissions testing performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 29, and converting the beryllium testing results to the equivalent of grams per 24 hours.

The tpy emission limitation was developed by multiplying the short-term allowable beryllium emission limitation (10 grams per 24 hour period) by 24 hours per day and 365 days of operation per year, and then dividing by 454 grams per pound and by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

Compliance with the combined arsenic, beryllium and chromium emission limitation shall be demonstrated based upon emissions testing performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 29.

p. Emission Limitation:

Dioxins and furans emissions shall not exceed 0.40 ng TEQ/dscm, corrected to 7% oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emissions testing performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 23A.



q. Emission Limitation:

Visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible emissions observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

r. Emission Limitation:

The incinerator system shall achieve a DRE of 99.99% for each selected POHC.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emissions testing performed in accordance with the procedures specified in the appropriate U.S. EPA Reference Methods for each selected POHC.

(2) The permittee shall conduct, or have conducted, emission testing for emissions unit N001 in accordance with the following requirements:

a. Stack testing shall be conducted as follows:

i. In order to demonstrate compliance, the following testing shall be conducted:

- (a) Comprehensive performance testing must be conducted to demonstrate compliance with the emission standards set forth in Section 63.1219, establish limits for the operating parameters provided in Section 63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems. Testing shall commence no later than 61 months after the date of commencing the previous comprehensive performance test. If data have been submitted in lieu of the initial performance test, the permittee must commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test.
- (b) Confirmatory performance testing must be conducted to demonstrate compliance with the emission standards for dioxin and furan, as set forth in Section 63.1219. Confirmatory performance testing shall be conducted no later than 31 months after the date of commencing the previous comprehensive performance test. If data have been submitted in lieu of the initial



performance test, the permittee must commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. The confirmatory performance test shall be conducted approximately midway between comprehensive performance tests.

- ii. If required, additional testing may be requested by the Ohio EPA Northeast District office.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable emission rates for particulate emissions; lead and cadmium; hydrochloric acid and chlorine gas; mercury; arsenic, beryllium, and chromium; hydrocarbons; dioxin and furans; and the destruction and removal efficiency requirement for selected POHC(s). Compliance shall be documented based on the arithmetic average of the emissions results of each run. The destruction and removal efficiency standard must be met for each run of the performance test. During any comprehensive and confirmatory performance test, the permittee shall establish the following operating parameters, which shall be maintained as required by the final standards for 40 CFR Part 63, Subpart EEE, after compliance has been demonstrated and upon receipt of the testing results:
- i. the minimum temperature in the kiln and in main combustion chamber;
 - ii. the minimum water flow rate and the maximum flue gas flowrate; or the minimum liquid to gas ratio in the radial-flow venturi scrubber;
 - iii. minimum pressure drop across the radial-flow venturi scrubber;
 - iv. the maximum solids content of the radial-flow venturi and gas-liquid contactor; or the minimum blowdown rate and either the minimum scrubber tank volume or minimum liquid level;
 - v. the minimum pH of the scrubber liquor in gas-liquid contractor;
 - vi. the minimum liquid feed pressure to the gas-liquid contactor;
 - vii. the maximum flue gas flowrate and/or maximum production/process weight rate;
 - viii. the maximum waste feed rate, not to exceed 26,057 pounds per hour, including the weight of containers, and 105,120 tons per year; and
 - ix. the minimum power input to each TR set of the WESP(s) (or other parameter required per the final rule).
- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.



- d. In order to demonstrate compliance with the DRE requirement for POHC, the following equation shall be calculated:

$$\text{DRE} = [1 - (\text{Wout}/\text{Win}) \times 100\%]$$

where:

Win = mass feedrate of selected POHC in a waste feedstream; and

Wout = mass emission rate of the same POHC present in exhaust emissions.

The permittee shall submit to the Ohio EPA Northeast District Office a test methodology for each selected POHC which will be burned in the incinerator, as well as each site-specific test plan and CMS performance evaluation test plan for any comprehensive and confirmatory performance tests.

- e. The permittee shall record the weight, in pounds, of all liquid, semi-solid and solid waste charged during any stack test conducted to demonstrate compliance.
- f. The permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office not later than 30 days prior to each proposed compliance test date. 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).
- g. 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.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests (i.e. stack test contractor) and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).
- i. The frequency of stack testing and test methods conducted shall be determined with the promulgation of 40 CFR 63, Subpart EEE, the final rule, and/or as required by any other applicable regulation. The Notification of Compliance shall be submitted following each subsequent comprehensive and confirmatory performance test.
- (3) Ongoing compliance with the NO_x and CO emissions limitations and O₂ monitoring requirements contained in this permit, 40 CFR Part 60, and any other applicable standard(s) 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 testing and recertification requirements of 40 CFR Part 60.

- (4) The permittee shall comply with the applicable testing requirements required under 40 CFR Part 63, Subpart EEE, including the following sections:

63.1206(b)(2)	Methods for Determining Compliance
63.1206(b)(12)	Documenting Compliance with the Standards based on Performance Testing
63.1207(b)(1)	Comprehensive Performance Test
63.1207(b)(2)	Confirmatory Performance Test
63.1207(d)	Frequency of Testing
63.1207(e)	Notification of Performance Tests
63.1207(f)	Content of Performance Test Plan
63.1207(g)	Operating Conditions during Test
63.1207(h)	Operating Conditions during Subsequent Tests
63.1207(i)	Time Extension for subsequent Performance Tests
63.1207(l)	Failure of Performance Test
63.1207(m)	Waiver of Performance Test
63.1208(b)	Test Methods

g) Miscellaneous Requirements

- (1) None.