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

1/22/2013

Certified Mail

Facility ID: 0247101010
Permit Number: P0109234
County: Lorain

John Van Wingerden
Green Circle Growers
15650 State Route 511
Oberlin, OH 44074

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Initial

Dear Permit Holder:

Enclosed is a finalOhio Environmental Protection Agency (EPA) Air Pollution Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it 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 Title V permit 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/dapc/permitsurvey.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 regarding this permit, please contact the Ohio EPA DAPC, Northeast District Office as indicated on page one of your permit.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA DAPC, Northeast District Office

FINAL

Division of Air Pollution Control
Title V Permit
for
Green Circle Growers

Facility ID:	0247101010
Permit Number:	P0109234
Permit Type:	Initial
Issued:	1/22/2013
Effective:	2/12/2013
Expiration:	2/12/2018

Division of Air Pollution Control
Title V Permit
for
Green Circle Growers

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Authorization

Facility ID:	0247101010
Facility Description:	Greenhouse
Application Number(s):	A0042631
Permit Number:	P0109234
Permit Description:	Initial Title V permit for greenhouse operations consisting of thirteen (13) boilers capable of burning natural gas, used oil and/or diesel oil and six (6) boilers burning wood.
Permit Type:	Initial
Issue Date:	1/22/2013
Effective Date:	2/12/2013
Expiration Date:	2/12/2018
Superseded Permit Number:	

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Green Circle Growers
15650 State Route 511
Oberlin, OH 44074

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 Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northeast District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

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. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. 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 (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive

measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the

insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Northeast District Office.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

a) The permittee must comply with all terms and conditions of this permit. 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 reissuance, or modification, or for denial of a permit renewal application.

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, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition A.11 below. 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, reopening 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.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.

(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 appropriate Ohio EPA District Office or local air agency 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.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible 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 responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping RequirementsUnder State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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 (i.e., postmarked) 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.)

25. Records Retention RequirementsUnder State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

27. 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 of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

B. Facility-Wide Terms and Conditions

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. Voluntary Restrictions to Avoid PSD and Major Stationary Source

   a) Applicable Emissions Limitations and/or Control Requirements

      (1) The specific operation(s), property, and/or equipment that constitutes each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative from following the table.

Applicable Rules/Requirements	Applicable Emissions Limitations/ Control Measures
OAC rule 3745-31-05(D)(1)	Hydrochloric acid (HCl) emissions shall not exceed 9.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B020, combined.

   b) Operational Restrictions

      (1) In order to limit the HCl emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B020, combined, such that the emissions of HCl shall not exceed 9.9 tons per year, and shall be calculated in accordance with the formula in e)(1)a.

      The quality of fuel burned in these emissions units shall meet a chlorine content that is sufficient to comply with the allowable HCl emission limitation specified in this permit.

      [Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

   c) Monitoring and/or Record Keeping Requirements

      (1) The permittee shall calculate and record each month:

         a. the total quantity of each fuel burned during the previous month, in appropriate units (i.e., pounds, million cubic feet, or gallons);

         b. the actual HCl emissions for the month, calculated according to e)(1)a; and

         c. the actual HCl emissions for the previous 12-month period, as a summation of the monthly emissions from the previous 12-month period.

      [Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) For each shipment of used oil received for burning in each emissions unit, the permittee shall maintain records of:

a. the total quantity of used oil received;

b. the permittee's or used oil supplier's analyses for:

i. sulfur content;

ii. heat content;

iii. chlorine content; and

iv. ash content; and

c. the calculated chlorine content, in weight percent.

A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quantity of the oil for those loads or pipeline deliveries may be represented by a single batch analyses from the supplier.

The permittee shall perform or require the supplier to perform the analyses heat content in accordance with 40 CFR Part 60, appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by bomb Calorimeter, or equivalent methods as approved by the Director.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(3) The permittee shall maintain monthly records of the total quantity of wood burned, and the results of the analyses for ash content, moisture content and heat content.

The permittee shall collect representative grab samples of the wood burned in B015 through B020 on a daily basis. The wood sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected during that calendar month shall be combined into one composite sample.

Each monthly composite sample of wood shall be analyzed for ash content (percent), moisture content (percent), and heat content (Btu/pound of wood). The analytical methods for ash content, moisture content and heat content shall be:

ASTM E871 Standard Test Method for Moisture Analysis of Particulate Wood Fuels;

ASTM E711 Standard Test Methods for Gross Caloric Value of Refuse-Derived Fuel by the Bomb Calorimeter; and

ASTM D1102 Standard Test Method for Ash in Wood.

Alternatively, equivalent methods may be used upon written approval by the Ohio EPA, Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

d) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. any exceedance of the 9.9 tons per year HCl, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B020, combined;

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

If no deviations (excursion) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

e) Testing Requirements

(1) Compliance with the allowable emission limitation in B.2.a)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

HCl emissions shall not exceed 9.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B020, combined.

<u>Applicable Compliance Method</u>:

The HCl emissions shall be determined by the value recorded in B.2.c)(1)c, based upon the following equation:

$$\sum_{n=B001}^{n=B020} (Muo\ x\ Cluo\ x\ EFuo) + (Mwood\ x\ Hwood\ x\ EFwood)$$

where:

Muo = the total used oil burned, in gallons per month;

Cluo = the weight percent of chlorine in the fuel oil, as a volume-weighted average for the month, i.e., if chlorine is 1%, then Cl=1;

EFuo = 66 is the Cl to HCl emission factor per AP-42, Volume 1, Section 1.11, Table 1.11-3 (10/96), which results in pound of HCl emissions per 1000 gallons of used oil burned);

Mwood= the total wood waste burned, in pounds per month;

Hwood = heat content determined during the most recent fuel analysis, or in the absence of data, assumed to be 6500 Btu per pound of wood; and

EFwood= 0.019 pound of HCl per million Btu, which is the emission factor for HCl per AP-42, AP-42, Volume 1, Section 1.6, Table 1.6-3 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 26A

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

3. The following insignificant emissions units are located at this facility:

EU ID	Operations, Property and/or Equipment Description
P001	250 kW Diesel Fired Emergency Engine #1 (OAC rule 3745-31-03(A)(4)(b)) - PBR 09666
P002	250 kW Diesel Fired Emergency Engine #2 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10028
P003	300 kW Diesel Fired Emergency Engine #3 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10029
P004	300 kW Diesel Fired Emergency Engine #4 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10030
P005	300 kW Diesel Fired Emergency Engine #5 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10031
P006	300 kW Diesel Fired Emergency Engine #7 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10033
P007	250 kW Diesel Fired Emergency Engine #8 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10034
P008	400 kW Diesel Fired Emergency Engine #9 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10035
P009	400 kW Diesel Fired Emergency Engine #10 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10036

EU ID	Operations, Property and/or Equipment Description
P010	400 kW Diesel Fired Emergency Engine #11 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10037
P011	800 kW Diesel Fired Emergency Engine #12 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10038
P012	1600 kW Diesel Fired Emergency Engine #13 (OAC rule 3745-31-03(A)(4)(b)) - PBR 10039

C. Emissions Unit Terms and Conditions

1. B001, C1

Operations, Property and/or Equipment Description:

12.6 MMBTU/hr Boiler (Boiler C1 in Plant 1) permitted to burn natural gas, on-spec used oil, and number two fuel oil.

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.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average. See b)(2)a, b)(2)b and b)(2)d.
b.	OAC rule 3745-31-05(A)(3) as effective 12/01/2006	See b)(2)c.
c.	OAC rule 3745-17-10(B)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-10(C)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-53	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	OAC rule 3745-31-05(D)	Particulate emissions (PE) and particulate matter emissions less than 10 microns in diameter (PM_{10}) shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		units B001 through B013 and B015 through B019, combined. Volatile organic compound (VOC) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Nitrogen oxide (NO_X) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Carbon monoxide (CO) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Sulfur dioxide (SO_2) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.
h.	OAC rule 3745-110-02	Exempt per OAC rule 3745-110-03(J)(16), the emissions unit does not have the ability to emit 25 TPY of NO_X.

(2) Additional Terms and Conditions

a. When burning the following fuels, the mass emission limitations shall not exceed the accompanying emission levels:

<u>Natural Gas</u>
PE/PM_{10}: 0.09 pound per hour and 0.39 ton per year
VOC: 0.14 pound per hour and 0.61 ton per year
NO_X: 1.24 pounds per hour and 5.43 tons per year
CO: 1.04 pounds per hour and 4.56 tons per year
SO_2: 0.01 pound per hour and 0.04 ton per year

<u>#2 Fuel Oil</u>
PE/PM_{10}: 0.30 pound per hour and 1.31 tons per year
VOC: 0.05 pound per hour and 0.22 ton per year
NO_X: 1.80 pounds per hour and 7.88 tons per year
CO: 0.45 pound per hour and 1.97 tons per year

SO_2: 6.48 pounds per hour and 28.38 tons per year

<u>On-Spec Used Oil</u>
PE/PM_{10}: 4.21 pounds per hour and 18.44 tons per year
VOC: 0.09 pound per hour and 0.39 ton per year
NO_X: 1.71 pounds per hour and 7.49 tons per year
CO: 0.45 pound per hour and 1.97 tons per year
SO_2: 6.62 pounds per hour 29.0 tons per year

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, NO_X and VOC emissions from this air contaminant source since the uncontrolled potential to emit is less than 10 tons per year.

d. When oil is used as a fuel, the sulfur content shall not be greater than 0.5 weight percent sulfur.

e. Each shipment of oil burned in this emissions unit shall be "on-specification" (on-spec) oil and shall meet the used oil specifications contained in OAC rule 3745-279-11. The permittee shall determine that the used fuel oil meets these specifications by performing analyses or obtaining copies of analyses or other information from the supplier documenting that the used fuel oil does not exceed (except for flash point which shall not fall below) the following limitations:

Property/Contaminant Allowable Specifications

arsenic 5 ppm, maximum
cadmium 2 ppm, maximum
chromium 10 ppm, maximum
lead 100 ppm, maximum
total halogens less than 1,000 ppm; or 4,000 ppm maximum if the presumption that the used oil contains hazardous waste is rebutted, as described below
flash point 100^oF, minimum

The used oil burned in this emissions unit shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3, and also shall not exceed the following mercury limitation nor fall below the following heating value:

PCB's	less than 2 ppm
heat content	135,000 Btu/gallon, minimum
mercury	1 ppm, maximum

Used oil containing 1,000 ppm or greater total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may receive and burn used oil equaling or exceeding 1,000 ppm total halogens, but less than 4,000 ppm, only if the permittee has successfully demonstrated, pursuant to OAC rule 3745-279-63,that the used oil does not contain a listed hazardous waste, by either acquiring and maintaining source process information which demonstrates that the used oil was contaminated by halogenated constituents that would not be listed hazardous waste or by demonstrating that the used oil does not contain significant concentrations of halogens by acquiring and maintaining representative analytical data. Acceptable analytical test protocols that can be used to analyze used oil for halogenated hazardous constituents include SW-846 Test Methods 9075, 9076, and 9077.*

If analytical results demonstrate that used oil containing 1,000 ppm or more total halogens, but less than 4,000 total halogens, does not contain greater than 100 ppm of any individual halogenated hazardous constituent found in the F001 and F002 listings in OAC rule 3745-51-31 and there is no information suggesting that any other halogenated hazardous constituent (e.g., chlorinated pesticides) has come in contact with the oil, then the presumption that the oil contains hazardous waste has been successfully rebutted.** The rebuttable presumption does not apply to either metal working oils/fluids containing chlorinated paraffins, if processed through a tolling arrangement as described in OAC rule 3745-279-24(C), or used oils contaminated with chlorofluorocarbons removed from refrigeration units.

The burning of used oil not meeting the above limitations is prohibited in this emissions unit and the fuel oil analyses shall document compliance with each limitation before it is burned. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils burned in this emissions unit meet all of the applicable requirements of this Chapter. If the used oil analyses shows total halogens of 1,000 ppm or greater, the permittee shall obtain and maintain all the necessary records to successfully rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste in accordance with this permit.

*EPA publication SW-846, 3rd (or most current) edition, is available from the Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954; 202/512-1800, document number 955-001-00000-1.

**DMWM policy documented in "Used Oil Burners - New Guidance for Rebuttable Presumption", published April 2008 or most current policy

c) Operational Restrictions

(1) In order to limit the PE/PM_{10} emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of PE/PM_{10} shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)e.

Limiting the emissions of PE to less than 99.9 tons per year shall inherently limit the PM_{10} emissions to less than 99.9 tons per year; therefore, no additional monitoring, record keeping, reporting or testing for PM_{10} will be required.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(2) In order to limit the VOC emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of VOC shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)f.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(3) In order to limit the NO_X emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of NO_X shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)g.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(4) In order to limit the CO emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of CO shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)h.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(5) In order to limit the SO_2 emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of SO_2 shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)i.

The quality of the fuel burned in these emissions units shall meet a sulfur content that is sufficient to comply with the allowable SO_2 emission limitation specified in this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(6) The permittee shall burn only natural gas, #2 fuel oil, or on-spec used oil in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(7) The permittee may not receive or burn any used oil which does not meet the standards in OAC rule 3745-279-11 and the specifications listed in this permit without first obtaining a permit-to-install or permit-to-install and operate that authorizes the burning of off-specification used oil. The burning of off-specification used oil, subject to OAC rule 3745-279-60 through 67, is prohibited as a fuel in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the total volume of natural gas (MCF) burned in this emissions unit;

b. the total number of gallons of on-spec used oil burned in this emissions unit;

c. the total number of gallons of #2 fuel oil burned in this emissions unit;

d. the total number of hours the emissions unit was in operation;

e. the total summation of the amount of PE/PM_{10} emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

f. the total summation of the amount of NO_X emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

g. the total summation of the amount of SO_2 emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

h. the total summation of the amount of CO emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period; and

i. the total summation of the amount of VOC emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or

the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(3) The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit (or if the oil is generated on site, the permittee shall conduct the chemical analyses), which shall contain the following information:

a. the date the used oil was received at the facility and the amount received;

b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/refiner, supplier, and/or marketer;

c. the results of the following chemical analyses, demonstrating that the used oil meets the standards in OAC rule 3745-279-11:

i. arsenic content, in ppm;

ii. the cadmium content, in ppm;

iii. the chromium content, in ppm;

iv. the lead content, in ppm;

v. total halogens, in ppm; and

vi. the flash point;

d. where the chemical analysis shows a total halogen content between 1,000 ppm, and below 4,000 ppm, the successful demonstration for the rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste, as described in OAC rule 3745-279-63(C); and

e. the results of the analyses demonstrating that the used oil meets the heating value and the mercury and PCB limitations contained in this permit.

Each analysis shall be kept in a readily accessible location for a period of not less than 5 years* following the receipt of each shipment of used oil and shall be made available to the Ohio EPA Division of Materials and Waste Management and/or the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses through an independent laboratory.

*The Division of Air Pollution Control requires these records to be maintained for 5 years.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. any exceedance of the 99.9 tons per year PE/PM_{10}, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

ii. any exceedance of the 99.9 tons per year VOC, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iii. any exceedance of the 99.9 tons per year NO_X, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iv. any exceedance of the 99.9 tons per year CO, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined; and

v. any exceedance of the 99.9 tons per year SO_2, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions);

d. the magnitude and duration of each deviation (excursion);

e. any exceedance of the used oil standards in OAC rule 3745-279-11;

f. any occasion where used oil containing 1,000 ppm or more total halogens was burned prior to receiving information demonstrating a successful rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste;

g. any exceedance of the limitations for mercury and/or PCBs;

h. any deviation from the minimum heat content of 135,000 Btu/gallon; and

i. any deviation from the minimum heat content limitation on the oil, Btu/gallon.

If no deviations (excursion) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) Where the analytical results for any shipment of used oil burned in this emissions unit establish that the used oil contains total halogens greater than 1,000 ppm, but less than 4,000 ppm, the results of the analysis for total halogens (from the appropriate test Method 9075, 9076, or 9077) and the information obtained to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste shall be submitted to the appropriate District Office or local air agency. Each rebuttal demonstration shall include:

a. the date the used oil was received;

b. the facility location or identification number where the oil was or will be burned;

c. the amount of oil in the shipment; and

d. all information, including all the analytical results, relied upon by the permittee to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste.

The rebuttal demonstrations for used oil received from October to December shall be submitted by January 31; used oil received from January to March, by April 30; used oil received from April to June, by July 31; and used oil received from July to September, by October 31.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

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. <u>Emission Limitations:</u>

When burning natural gas:

PE/PM_{10} emissions shall not exceed 0.09 lb/hr.
VOC emissions shall not exceed 0.14 lb/hr.
NO_X emissions shall not exceed 1.24 lbs/hr.
CO emissions shall not exceed 1.04 lbs/hr.
SO_2 emissions shall not exceed 0.01 lb/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ep = EFp x NG/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.4-2 (7/98);
pollutant(PE/PM_{10}) = 7.6 lbs of PE/10^6scf of gas burned
pollutant(VOC) = 11 lbs of VOC/10^6scf of gas burned
pollutant(NO_X) = 100 lbs of NOx/10^6scf of gas burned
pollutant(CO) = 84 lbs of CO/10^6scf of gas burned
pollutant(SO_2) = 0.6 lb of SO_2/10^6scf of gas burned
NG = amount of gas burned in the emissions unit (CF), per d)(1)a; and
H = number of hours boiler was burning natural gas.

b. Emission Limitations:

When burning #2 fuel oil:

PE/PM_{10} emissions shall not exceed 0.30 lb/hr.
VOC emissions shall not exceed 0.05 lb/hr.
NO_X emissions shall not exceed 1.80 lbs/hr.
CO emissions shall not exceed 0.45 lb/hr.
SO_2 emissions shall not exceed 6.48 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation for PE/PM_{10}, VOC, NO_X and CO:

Ep = EFp x F/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 through Table 1.3-3 (9/98);
pollutant(PE/PM_{10}) = 3.3 lbs of PE/1000 gallons of #2 fuel oil burned
pollutant(VOC) = 0.556 lb of VOC/1000 gallons of #2 fuel oil burned
pollutant(NO_X) = 20 lbs of NO_X/1000 gallons of #2 fuel oil burned
pollutant(CO) = 5 lbs of CO/1000 gallons of #2 fuel oil burned
F = amount of #2 fuel oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning #2 fuel oil.

Compliance shall be demonstrated by using the following equation for SO_2:

E = EF x S x F/H

where:

E = emissions of sulfur dioxide, lb/hr;
EF = emission factor of 144 lbs of SO_2/1000 gallons from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 and Table 1.3-2 (9/98);
S = weight percent sulfur in used oil, if sulfur content is 0.5% then S = 0.5;
F = amount of #2 fuel oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning #2 fuel oil.

c. Emission Limitations:

When burning on-spec used oil:

PE/PM_{10} emissions shall not exceed 4.21 lbs/hr.
VOC emissions shall not exceed 0.09 lb/hr.
NO_X emissions shall not exceed 1.71 lbs/hr.
CO emissions shall not exceed 0.45 lb/hr.
SO_2 emissions shall not exceed 6.62 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation for PE/PM_{10}:

E = EF x A x U/H

where:

E = emissions of particulate emissions, lb/hr;
EF = emission factor of 64 lbs of PE/1000 gallons of on-spec used oil burned from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-1, (10/96);
A = weight percent ash in on-spec used oil, if ash content is 0.73% then A= 0.73;
U = amount of on-spec oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec fuel oil.

Compliance shall be demonstrated by using the following equation for VOC, NO_X and CO:

Ep = EFp x U/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-2, Table

1.11-3, (10/96);
pollutant(VOC) = 1 lb of VOC/1000 gallons of on-spec used oil burned
pollutant(NO_X) = 19 lbs of NO_X/1000 gallons of on-spec used oil burned
pollutant(CO) = 5 lbs of CO/1000 gallons of on-spec used oil burned
U = amount of on-spec oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec fuel oil.

Compliance shall be demonstrated by using the following equation for SO_2:

E = EF x S x F/H

where:

E = emissions of sulfur dioxide, lb/hr;
EF = emission factor of 147 lbs of SO_2/1000 gallons from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-1 (10/96);
S = weight percent sulfur in on-spec used oil, if sulfur content is 0.5% then S=0.5;
F = amount of on-spec used oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec used oil.

d. Emission Limitation:

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE/PM_{10} emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The PE/PM_{10} emissions shall be determined by the value recorded in d)(1)e, based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 2 pounds of filterable PM per 1000 gallons of #2 fuel oil burned, which is the emission factor for filterable PM per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Auo = the percent ash content of used oil burned, i.e., if ash content is 1%, then A = 1;

EFuo = 64 pounds of PM per 1000 gallons of used oil burned, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-1 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 1.9 pounds of filterable PM per million cubic feet of natural gas burned, which is the emission factor for filterable PM total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = heat content determined during the most recent fuel analysis, or in the absence of data, assumed to be 6500 Btu per pound of wood; and

EFwood = 0.054 pound of filterable PM per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-1 (9/03) for wood boilers controlled by and ESP, or the emission rate determined by the most recent emission test of this or an identical emissions unit.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. <u>Emission Limitation:</u>

VOC emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

<u>Applicable Compliance Method</u>:

The VOC emissions shall be determined by the value recorded in d)(1)i, based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 0.34 pound of NMTOC* per 1000 gallons of #2 fuel oil burned, which is the emission factor for commercial/institutional/residential combustors for non-methane total organic compounds per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo* = 1.0 pound of TOC* per 1000 gallons of used oil burned, which is the emission factor for TOC per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-3 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 5.5 pounds of VOC per million cubic feet of natural gas burned, which is the emission factor for VOC total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood =0.017 pound of VOC per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-3 (9/03).

* in the absence of VOC emission data, TOC or NMTOC emission factors shall be used.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 25, 25A or 18.

g. Emission Limitation:

NO_X emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The NO_X emissions shall be determined by the value recorded in d)(1)f, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 20 pounds of NO_X per 1000 gallons of #2 fuel oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 19 pounds of NO_X per 1000 gallons of used oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 100 pounds of NO_X per million cubic feet of natural gas burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the fuel analysis of the monthly composite sample; and

EFwood = 0.49 pound of NO_X per million Btu, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03) for dry wood, or the emission rate determined during the most recent emission test event for the representative the fuel moisture content.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 7.

h. Emission Limitation:

CO emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The CO emissions shall be determined by the value recorded in d)(1)h, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 5 pounds of CO per 1000 gallons of #2 fuel oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 5.0 pounds of CO per 1000 gallons of used oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 84 pounds of CO per million cubic feet of natural gas burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-1 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.60 pound of CO per million Btu, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 10.

i. Emission Limitation:

SO_2 emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The SO_2 emissions shall be determined by the value recorded in d)(1)g, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x Soil x EFoil}) + (\text{Muo x Suo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

Soil = the weight percent of sulfur in the fuel oil, as a volume- weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFoil = 144 pounds of SO_2 and SO_3 per 1000 gallons of #2 fuel oil burned, which is the emission factors for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Suo = the weight percent of sulfur in the used oil, as a volume-weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFuo = 147 pounds of SO_2 per 1000 gallons of used oil burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 0.6 pound of SO_2 per million cubic feet of natural gas burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.025 pound of SO_2 per million Btu, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6.

j. Emission Limitation:

When burning natural gas:

PE/PM_{10} emissions shall not exceed 0.39 ton per year.

VOC emissions shall not exceed 0.61 ton per year.
NO_X emissions shall not exceed 5.43 tons per year.
CO emissions shall not exceed 4.56 tons per year.
SO_2 emissions shall not exceed 0.04 ton per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

k. Emission Limitation:

When burning #2 fuel oil:

PE/PM_{10} emissions shall not exceed 1.31 tons per year.
VOC emissions shall not exceed 0.22 ton per year.
NO_X emissions shall not exceed 7.88 tons per year.
CO emissions shall not exceed 1.97 tons per year.
SO_2 emissions shall not exceed 28.38 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

l. Emission Limitation:

When burning on-spec used oil:

PE/PM_{10} emissions shall not exceed 18.44 tons per year.
VOC emissions shall not exceed 0.39 ton per year.
NO_X emissions shall not exceed 7.49 tons per year.
CO emissions shall not exceed 1.97 tons per year.
SO_2 emissions shall not exceed 29.0 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

m. Emission Limitation:

When oil is used as a fuel, the sulfur content shall not be greater than 0.5 weight percent sulfur.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) The concentrations of contaminants (arsenic, barium, cadmium, chromium, lead, mercury, PCBs, and total halogens) in the used oil shall be analyzed using a "total constituent analysis" method, as specified in U.S. EPA publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The applicable test methods that should be used are as follows:

Arsenic, barium, cadmium, chromium, and lead: SW-846, Method 3031 or 3051 (digestion procedures) followed by analysis using Method 6010B or 6020;
Mercury: SW-846, Method 7471A;

PCBs: SW-846, Method 8270C or 8082; and

Total halogens: SW-846, Method 9075, 9076, or 9077.

The permittee shall submit a written request and receive approval from Ohio EPA Division of Materials and Waste Management and/or the Division of Air Pollution Control, of Central Office, before an alternative test method, not listed above, can be used for the total constituent analysis of the above-mentioned used oil contaminants.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

g) Miscellaneous Requirements

(1) None.

2. B005, C5

Operations, Property and/or Equipment Description:

25.1 MMBTU/hr Boiler (Boiler C5 in Plant 1) permitted to burn natural gas, on-spec used oil, and number two fuel oil.

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.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average. See b)(2)a, b)(2)b and b)(2)d.
b.	OAC rule 3745-31-05(A)(3) as effective 12/1/2006	See b)(2)c.
c.	OAC rule 3745-31-05(D)	Particulate emissions (PE) and particulate matter emissions less than 10 microns in diameter (PM_{10}) shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Volatile organic compound (VOC) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Nitrogen oxide (NO_X) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Carbon monoxide (CO) emissions shall

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Sulfur dioxide (SO_2) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.
d.	OAC rule 3745-17-10(B)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-10(C)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	40 CFR Part 60, Subpart Dc	The emission limitation required by this applicable rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
h.	OAC rule 3745-18-53	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
i.	OAC rule 3745-110-02	Exempt, per OAC rule 3745-110-03(J)(16), the emissions unit does not have the ability to emit 25 tons per year of NO_X.

(2) Additional Terms and Conditions

a. When burning the following fuels, the mass emission limitations shall not exceed the accompanying emission levels:

<u>Natural Gas</u>
PE/PM_{10}: 0.19 pound per hour and 0.83 ton per year
VOC: 0.27 pound per hour and 1.18 tons per year
NO_X: 2.46 pounds per hour and 10.77 tons per year
CO 2.07 pounds per hour and 9.07 tons per year
SO_2: 0.015 pound per hour and 0.66 ton per year

#2 Fuel Oil
PE/PM_{10}: 0.59 pound per hour and 2.58 tons per year
VOC: 0.10 pound per hour and 0.44 ton per year
NO_X: 3.59 pounds per hour and 15.72 tons per year
CO: 0.90 pound per hour and 3.94 tons per year
SO_2: 12.91 pounds per hour and 56.55 tons per year

On-Spec Used Oil
PE/PM_{10}: 8.38 pounds per hour and 36.70 tons per year
VOC: 0.18 pound per hour and 0.79 ton per year
NO_X: 3.41 pounds per hour and 14.94 tons per year
CO: 0.90 pound per hour and 3.94 tons per year
SO_2: 13.18 pounds per hour and 57.73 tons per year

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO and VOC emissions from this air contaminant source since the uncontrolled potential to emit is less than 10 tons per year.

d. When oil is used as a fuel, the sulfur content shall not be greater than 0.5 weight percent sulfur.

e. Each shipment of oil burned in this emissions unit shall be "on-specification" (on-spec) oil and shall meet the used oil specifications contained in OAC rule 3745-279-11. The permittee shall determine that the used fuel oil meets these specifications by performing analyses or obtaining copies of analyses or other information from the supplier documenting that the used fuel oil does not exceed (except for flash point which shall not fall below) the following limitations:

Property/Contaminant Allowable Specifications

arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum

lead	100 ppm, maximum
total halogens	less than 1,000 ppm; or 4,000 ppm maximum if the presumption that the used oil contains hazardous waste is rebutted, as described below
flash point	100°F, minimum

The used oil burned in this emissions unit shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3, and also shall not exceed the following mercury limitation nor fall below the following heating value:

PCB's	less than 2 ppm
heat content	135,000 Btu/gallon, minimum
mercury	1 ppm, maximum

Used oil containing 1,000 ppm or greater total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may receive and burn used oil equaling or exceeding 1,000 ppm total halogens, but less than 4,000 ppm, only if the permittee has successfully demonstrated, pursuant to OAC rule 3745-279-63,that the used oil does not contain a listed hazardous waste, by either acquiring and maintaining source process information which demonstrates that the used oil was contaminated by halogenated constituents that would not be listed hazardous waste or by demonstrating that the used oil does not contain significant concentrations of halogens by acquiring and maintaining representative analytical data. Acceptable analytical test protocols that can be used to analyze used oil for halogenated hazardous constituents include SW-846 Test Methods 9075, 9076, and 9077.*

If analytical results demonstrate that used oil containing 1,000 ppm or more total halogens, but less than 4,000 total halogens, does not contain greater than 100 ppm of any individual halogenated hazardous constituent found in the F001 and F002 listings in OAC rule 3745-51-31 and there is no information suggesting that any other halogenated hazardous constituent (e.g., chlorinated pesticides) has come in contact with the oil, then the presumption that the oil contains hazardous waste has been successfully rebutted.** The rebuttable presumption does not apply to either metal working oils/fluids containing chlorinated paraffins, if processed through a tolling arrangement as described in OAC rule 3745-279-24(C), or used oils contaminated with chlorofluorocarbons removed from refrigeration units.

The burning of used oil not meeting the above limitations is prohibited in this emissions unit and the fuel oil analyses shall document compliance with each limitation before it is burned. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils burned in this emissions unit meet all of the applicable requirements of this Chapter. If the used oil analyses shows total halogens of 1,000 ppm or greater, the permittee shall obtain and maintain all the necessary records to successfully rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste in accordance with this permit.

*EPA publication SW-846, 3rd (or most current) edition, is available from the Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954; 202/512-1800, document number 955-001-00000-1.

**DMWM policy documented in "Used Oil Burners - New Guidance for Rebuttable Presumption", published April 2008 or most current policy

c) Operational Restrictions

(1) In order to limit the PE/PM_{10} emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of PE/PM_{10} shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)e.

Limiting the emissions of PE to less than 99.9 tons per year shall inherently limit the PM_{10} emissions to less than 99.9 tons per year; therefore, no additional monitoring, record keeping, reporting or testing for PM_{10} will be required.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(2) In order to limit the VOC emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of VOC shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)f.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(3) In order to limit the NO_X emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of NO_X shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)g.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(4) In order to limit the CO emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of CO shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)h.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(5) In order to limit the SO_2 emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of SO_2 shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)i.

The quality of the fuel burned in these emissions units shall meet a sulfur content that is sufficient to comply with the allowable SO_2 emission limitation specified in this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(6) The permittee shall burn only natural gas, #2 fuel oil, or on-spec used oil in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(7) The permittee may not receive or burn any used oil which does not meet the standards in OAC rule 3745-279-11 and the specifications listed in this permit without first obtaining a permit-to-install or permit-to-install and operate that authorizes the burning of off-specification used oil. The burning of off-specification used oil, subject to OAC rule 3745-279-60 through 67, is prohibited as a fuel in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the total volume of natural gas (MCF) burned in this emissions unit;

b. the total number of gallons of on-spec used oil burned in this emissions unit;

c. the total number of gallons of #2 fuel oil burned in this emissions unit;

d. the total number of hours the emissions unit was in operation;

e. the total summation of the amount of PE/PM_{10} emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

f. the total summation of the amount of NO_X emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

g. the total summation of the amount of SO_2 emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

h. the total summation of the amount of CO emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period; and

i. the total summation of the amount of VOC emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same

supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(3) The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit (or if the oil is generated on site, the permittee shall conduct the chemical analyses), which shall contain the following information:

a. the date the used oil was received at the facility and the amount received;

b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/refiner, supplier, and/or marketer;

c. the results of the following chemical analyses, demonstrating that the used oil meets the standards in OAC rule 3745-279-11:

i. arsenic content, in ppm;

ii. the cadmium content, in ppm;

iii. the chromium content, in ppm;

iv. the lead content, in ppm;

v. total halogens, in ppm; and

vi. the flash point;

d. where the chemical analysis shows a total halogen content between 1,000 ppm, and below 4,000 ppm, the successful demonstration for the rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste, as described in OAC rule 3745-279-63(C); and

e. the results of the analyses demonstrating that the used oil meets the heating value and the mercury and PCB limitations contained in this permit.

Each analysis shall be kept in a readily accessible location for a period of not less than 5 years* following the receipt of each shipment of used oil and shall be made available to the Ohio EPA Division of Materials and Waste Management and/or the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or

require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses through an independent laboratory.

*The Division of Air Pollution Control requires these records to be maintained for 5 years.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. any exceedance of the 99.9 tons per year PE/PM_{10}, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

ii. any exceedance of the 99.9 tons per year VOC, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iii. any exceedance of the 99.9 tons per year NO_X, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iv. any exceedance of the 99.9 tons per year CO, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined; and

v. anyexceedance of the 99.9 tons per year SO_2, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions);

d. the magnitude and duration of each deviation (excursion);

e. any exceedance of the used oil standards in OAC rule 3745-279-11;

f. any occasion where used oil containing 1,000 ppm or more total halogens was burned prior to receiving information demonstrating a successful rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste;

g. any exceedance of the limitations for mercury and/or PCBs;

h. any deviation from the minimum heat content of 135,000 Btu/gallon; and

i. any deviation from the minimum heat content limitation on the oil, Btu/gallon.

If no deviations (excursion) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) Where the analytical results for any shipment of used oil burned in this emissions unit establish that the used oil contains total halogens greater than 1,000 ppm, but less than 4,000 ppm, the results of the analysis for total halogens (from the appropriate test Method 9075, 9076, or 9077) and the information obtained to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste shall be submitted to the appropriate District Office or local air agency. Each rebuttal demonstration shall include:

a. the date the used oil was received;

b. the facility location or identification number where the oil was or will be burned;

c. the amount of oil in the shipment; and

d. all information, including all the analytical results, relied upon by the permittee to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste.

The rebuttal demonstrations for used oil received from October to December shall be submitted by January 31; used oil received from January to March, by April 30; used oil received from April to June, by July 31; and used oil received from July to September, by October 31.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

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 Limitations:

When burning natural gas:

PE/PM_{10} emissions shall not exceed 0.19 lb/hr.
VOC emissions shall not exceed 0.27 lb/hr.
NO_X emissions shall not exceed 2.46 lbs/hr.
CO emissions shall not exceed 2.07 lbs/hr.
SO_2 emissions shall not exceed 0.015 lb/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ep = EFp x NG/H

where:

Ep = emissions (of pollutant p) , lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.4-2 (7/98);
pollutant(PE/PM_{10}) = 7.6 lbs of PE/10^6scf of gas burned
pollutant(VOC) = 11 lbs of VOC/10^6scf of gas burned
pollutant(NO_X) = 100 lbs of NO_X/10^6scf of gas burned
pollutant(CO) = 84 lbs of CO/10^6scf of gas burned
pollutant(SO_2) = 0.6 lb of SO_2/10^6scf of gas burned
NG = amount of gas burned in the emissions unit (CF), per Section A.III.1.a; and
H = number of hours boiler was burning natural gas.

b. Emission Limitations:

When burning #2 fuel oil:

PE/PM_{10} emissions shall not exceed 0.59 lb/hr.
VOC emissions shall not exceed 0.10 lb/hr.
NO_X emissions shall not exceed 3.59 lbs/hr.
CO emissions shall not exceed 0.90 lb/hr.
SO_2 emissions shall not exceed 12.91 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation for PE/PM_{10}, VOC, NO_X and CO:

Ep = EFp x F/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant

Emission Factors", Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 through Table 1.3-3 (9/98);
pollutant(PE/PM_{10}) = 3.3 lbs of PE/1000 gallons of #2 fuel oil burned
pollutant(VOC) = 0.556 lb of VOC/1000 gallons of #2 fuel oil burned
pollutant(NO_X) = 20 lbs of NO_X/1000 gallons of #2 fuel oil burned
pollutant(CO) = 5 lbs of CO/1000 gallons of #2 fuel oil burned
F = amount of #2 fuel oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning #2 fuel oil.

Compliance shall be demonstrated by using the following equation for SO_2:

E = EF x S x F/H

where:

E = emissions of sulfur dioxide, lb/hr;
EF = emission factor of 144 lbs of SO_2/1000 gallons from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 and Table 1.3-2 (9/98);
S = weight percent sulfur in used oil, if sulfur content is 0.5% then S = 0.5;
F = amount of #2 fuel oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning #2 fuel oil.

c. Emission Limitations:

When burning on-spec used oil:

PE/PM_{10} emissions shall not exceed 8.38 lbs/hr.
VOC emissions shall not exceed 0.18 lb/hr.
NO_X emissions shall not exceed 3.41 lbs/hr.
CO emissions shall not exceed 0.90 lb/hr.
SO_2 emissions shall not exceed 13.18 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation for PE/PM_{10}:

E = EF x A x U/H

where:

E = emissions of particulate emissions, lb/hr;
EF = emission factor of 64 lbs of PE/1000 gallons of on-spec used oil burned from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-1, (10/96);
A = weight percent ash in on-spec used oil, if ash content is 0.73% then A= 0.73;
U = amount of on-spec oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec fuel oil.

Compliance shall be demonstrated by using the following equation for VOC, NO_X and CO:

Ep = EFp x U/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-2, Table 1.11-3, (10/96);
pollutant(VOC) = 1 lb of VOC/1000 gallons of on-spec used oil burned
pollutant(NO_X) = 19 lbs of NO_X/1000 gallons of on-spec used oil burned
pollutant(CO) = 5 lbs of CO/1000 gallons of on-spec used oil burned
U = amount of on-spec oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec fuel oil.

Compliance shall be demonstrated by using the following equation for SO_2:

E = EF x S x F/H

where:

E = emissions of sulfur dioxide, lb/hr;
EF = emission factor of 147 lbs of SO_2/1000 gallons from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-1 (10/96);
S = weight percent sulfur in on-spec used oil, if sulfur content is 0.5% then S=0.5;
F = amount of on-spec used oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec used oil.

d. Emission Limitation:

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE/PM_{10} emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The PE/PM_{10} emissions shall be determined by the value recorded in d)(1)e, based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 2 pounds of filterable PM per 1000 gallons of #2 fuel oil burned, which is the emission factor for filterable PM per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Auo = the percent ash content of used oil burned, i.e., if ash content is 1%, then A = 1;

EFuo = 64 pounds of PM per 1000 gallons of used oil burned, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-1 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 1.9 pounds of filterable PM per million cubic feet of natural gas burned, which is the emission factor for filterable PM total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = heat content determined during the most recent fuel analysis, or in the absence of data, assumed to be 6500 Btu per pound of wood; and

EFwood = 0.054 pound of filterable PM per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-1 (9/03) for wood boilers controlled by and ESP, or the emission rate determined by the most recent emission test of this or an identical emissions unit.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitation:

VOC emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The VOC emissions shall be determined by the value recorded in d)(1)i based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 0.34 pound of NMTOC* per 1000 gallons of #2 fuel oil burned, which is the emission factor for commercial/institutional/residential combustors for non-methane total organic compounds per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo* = 1.0 pound of TOC* per 1000 gallons of used oil burned, which is the emission factor for TOC per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-3 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 5.5 pounds of VOC per million cubic feet of natural gas burned, which is the emission factor for VOC total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood =0.017 pound of VOC per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-3 (9/03).

* in the absence of VOC emission data, TOC or NMTOC emission factors shall be used.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 25, 25A or 18.

g. Emission Limitation:

NO_X emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The NO_X emissions shall be determined by the value recorded in d)(1)f, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 20 pounds of NO_X per 1000 gallons of #2 fuel oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 19 pounds of NO_X per 1000 gallons of used oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 100 pounds of NO_X per million cubic feet of natural gas burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the fuel analysis of the monthly composite sample; and

EFwood = 0.49 pound of NO_X per million Btu, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03) for dry wood, or the emission rate determined during the most recent emission test event for the representative the fuel moisture content.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 7.

h. Emission Limitation:

CO emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The CO emissions shall be determined by the value recorded in d)(1)h, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 5 pounds of CO per 1000 gallons of #2 fuel oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 5.0 pounds of CO per 1000 gallons of used oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 84 pounds of CO per million cubic feet of natural gas burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-1 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.60 pound of CO per million Btu, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 10.

i. Emission Limitation:

SO_2 emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The SO_2 emissions shall be determined by the value recorded in d)(1)g, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x Soil x EFoil}) + (\text{Muo x Suo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

Soil = the weight percent of sulfur in the fuel oil, as a volume- weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFoil = 144 pounds of SO_2 and SO_3 per 1000 gallons of #2 fuel oil burned, which is the emission factors for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Suo = the weight percent of sulfur in the used oil, as a volume-weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFuo = 147 pounds of SO_2 per 1000 gallons of used oil burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 0.6 pound of SO_2 per million cubic feet of natural gas burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.025 pound of SO_2 per million Btu, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6.

j. Emission Limitation:

When burning natural gas:

PE/PM_{10} emissions shall not exceed 0.83 ton per year.
VOC emissions shall not exceed 1.18 tons per year.
NO_X emissions shall not exceed 10.77 tons per year.
CO emissions shall not exceed 9.07 tons per year.
SO_2 emissions shall not exceed 0.66 ton per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

k. Emission Limitation:

When burning #2 fuel oil:

PE/PM_{10} emissions shall not exceed 2.58 tons per year.
VOC emissions shall not exceed 0.44 ton per year.
NO_X emissions shall not exceed 15.72 tons per year.
CO emissions shall not exceed 3.94 tons per year.
SO_2 emissions shall not exceed 56.55 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

l. Emission Limitation:

When burning on-spec used oil:

PE/PM_{10} emissions shall not exceed 36.70 tons per year.
VOC emissions shall not exceed 0.79 ton per year.
NO_X emissions shall not exceed 14.94 tons per year.
CO emissions shall not exceed 3.94 tons per year.
SO_2 emissions shall not exceed 57.73 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

m. Emission Limitation:

When oil is used as a fuel, the sulfur content shall not be greater than 0.5 weight percent sulfur.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) The concentrations of contaminants (arsenic, barium, cadmium, chromium, lead, mercury, PCBs, and total halogens) in the used oil shall be analyzed using a “total constituent analysis” method, as specified in U.S. EPA publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The applicable test methods that should be used are as follows:

Arsenic, barium, cadmium, chromium, and lead: SW-846, Method 3031 or 3051 (digestion procedures) followed by analysis using Method 6010B or 6020;
Mercury: SW-846, Method 7471A;

PCBs: SW-846, Method 8270C or 8082; and

Total halogens: SW-846, Method 9075, 9076, or 9077.

The permittee shall submit a written request and receive approval from Ohio EPA Division of Materials and Waste Management and/or the Division of Air Pollution Control, of Central Office, before an alternative test method, not listed above, can be used for the total constituent analysis of the above-mentioned used oil contaminants.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

g) Miscellaneous Requirements

(1) None.

3. B020, B020

Operations, Property and/or Equipment Description:

29.7 mmBtu/hr heat input rated, Wood-fired Boiler #6 for hot water. Equipped with an Electrostatic Precipitator for particulate emission control.

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.	ORC 3704.03(T)	Particulate emissions (PE) shall not exceed 0.10 lb/mmBtu. Nitrogen oxides (NO_X) emissions shall not exceed 0.49 lb/mmBtu. Carbon monoxide (CO) emissions shall not exceed 0.60 lb/mmBtu.
b.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	Sulfur dioxide (SO_2) emissions shall not exceed 0.74 pound per hour and 3.24 tons per year. Volatile organic compound (VOC) emissions shall not exceed 1.16 pounds per hour and 5.08 tons per year. See b)(2)a and c)(2). The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
c.	OAC rule 3745-31-05(A)(3) as effective 12/01/2006	See b)(2)b.
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-10(C)(1)	The emission limitation required by this

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		applicable rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).
f.	OAC rule 3745-110-03	See b)(2)c.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (SB 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants of less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled VOC emissions and the SO_2 emissions from this air contaminant source since the potential to emit for VOC and SO_2 is less than ten tons per year. Uncontrolled VOC and SO_2 emissions are calculated with the emission factors in AP-42, Chapter 1.6, Wood Residue Combustion.

c. The permittee shall annually perform or have performed a tune-up of this emissions unit.

c) Operational Restrictions

(1) The permittee shall only burn wood in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(2) The permittee shall not burn wood or wood waste derived from any operation which coats, treats, or otherwise contaminates the wood or wood waste.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(3) The permittee shall operate each electrostatic precipitator (ESP) during any operation of the corresponding emissions unit, except the ESP may not be operated during periods of start-up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit

at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall operate and maintain a temperature monitor and recorder for each emissions unit that measures and records the temperature of the emissions unit exhaust gases entering each ESP as follows:

a. during all periods of start-up until the ESP is operational or until the exhaust gas prior to the inlet of the ESP achieves a temperature of 250 degrees Fahrenheit; and

b. during all periods of shutdown until the exhaust gas prior to the inlet of the ESP drops below 250 degrees Fahrenheit.

The temperature monitor and recorder 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 temperature of the emissions unit exhaust gases in degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range of the secondary voltage and current for each field of the ESP shall be between 20 to 55 kilovolts and 5 to 300 milliamps.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(3) The operation of any control equipment outside of the restrictions established above may or may not indicate a mass emission violation. If required by the Ohio EPA, compliance with the mass emission limitations shall be determined by performing concurrent mass emission tests and parameter readings, using USEPA - approved methods and procedures. The results of any required emissions tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of the restrictions specified above is indicative of a violation of the mass emission limitations.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the following on an hourly basis during any operation of each ESP:

a. the secondary voltage, in kilovolts, and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;

b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and

c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable secondary voltage and current settings shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(5) Whenever the monitored value for the voltage and/or current within a field deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s) at or above the minimum voltage and current limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the secondary voltage and current readings for each field immediately after the corrective action; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(6) These secondary voltage and current range(s) or minimum limit(s) for each ESP are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to these range(s) or minimum voltage and current limits based upon information obtained during future tests that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to these range(s) or minimum voltage and current limit(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(7) The permittee shall maintain, in a permanently bound log book, or other format approved in writing by the Ohio EPA, the following:

a. the date of the last tune-up;

b. the name, title, and affiliation of the person who performed the tune-up; and

c. a list of adjustments made during the annual tune-up.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

e) Reporting Requirements

(1) The permittee shall submit an annual report that includes the following information concerning the operations of the ESP during the 12-month reporting period for this/these emissions unit(s):

a. each period of time (start time and date, and end time and date) when the secondary voltage and current for each field within the ESP was outside of the range(s) or at or above the minimum limit(s) specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the ESP;

c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the ESP into compliance with the acceptable range(s) or limit(s) for secondary voltage and current, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

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:

PE emissions shall not exceed 0.10 lb/mmBtu.
NO_X emissions shall not exceed 0.49 lb/mmBtu.
CO emissions shall not exceed 0.60 lb/mmBtu.

Applicable Compliance Method:

Compliance shall be demonstrated through the emission testing requirements specified in f)(1).

b. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

c. Emission Limitation:

SO_2 emissions shall not exceed 0.74 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated through the use of an SO_2 emission factor obtained from AP-42, Volume 1, Fifth Edition, Chapter 1, Table 1.6-2 equal to 0.025 lb/mmBtu of actual heat input multiplied by the emissions unit heat input rating of 29.7 mmBtu/hr.

If required, compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

d. Emission Limitation:

SO_2 emissions shall not exceed 3.24 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable SO_2 emission limitation (0.74 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

e. Emission Limitation:

VOC emissions shall not exceed 1.16 pounds per hour

Applicable Compliance Method:

Compliance shall be demonstrated through the use of an OC emission factor obtained from AP-42, Volume 1, Fifth Edition, Chapter 1, Table 1.6-3 equal to 0.039 lb/mmBtu of actual heat input multiplied by the emissions unit heat input rating of 29.7 mmBtu/hr.

If required, compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 or 25A.

f. Emission Limitation:

VOC emissions shall not exceed 5.08 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable VOC emission limitation (1.16 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) The permittee shall conduct, or have conducted, emission testing for one emissions unit as a representative of this group of emissions units in accordance with the following requirements:

a. No later than 6 months after permit issuance and issuance of subsequent permit renewals, the facility shall test at least one (1) emissions unit, rotating through the existing emissions units until all have been tested at least once, then continuing to rotate through the emissions units in the order in which they were initially tested.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, NO_X and CO when burning wood.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PE - Method 5 of 40 CFR Part 60, Appendix A;

forNO_x - Method 7 of 40 CFR Part 60, Appendix A; and

for CO - Method 10 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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.

e. 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).

f. 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.

g. 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 30 days following completion of the test(s). The permittee may 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) and PTI P0110185]

g) Miscellaneous Requirements

(1) None.

4. Emissions Unit Group - 21 mmBtu/hr Boilers: B002,B003,B004,B006,B007,B008,B009,B010,B011,B012,B013,

EU ID	Operations, Property and/or Equipment Description
B002	21 mmBtu/hr Boiler (Boiler C2 in Plant 1) permitted to burn natural gas, on-spec used oil and number two fuel oil.
B003	21 mmBtu/hr Boiler (Boiler C3 in Plant 1) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B004	21 mmBtu/hr Boiler (Boiler C4 in Plant 1) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B006	21 mmBtu/hr Boiler (Boiler A3 in Plant 1A) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B007	21 mmBtu/hr Boiler (Boiler A4 in Plant 1A) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B008	21 mmBtu/hr Boiler (Boiler D1 in Plant 2) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B009	21 mmBtu/hr Boiler (Boiler D2 in plant 2) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B010	21 mmBtu/hr Boiler (Boiler D3 in Plant 2) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B011	21 mmBtu/hr Boiler (Boiler B1 in Plant 6) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B012	21 mmBtu/hr Boiler (Boiler B2 in Plant 6) permitted to burn natural gas, on-spec used oil, and number two fuel oil.
B013	21 mmBtu/hr Boiler (Boiler B3 in Plant 6) permitted to burn natural gas, on-spec used oil, and number two fuel oil.

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.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average. See b)(2)a, b)(2)b and b)(2)d.
b.	OAC rule 3745-31-05(A)(3) as effective 12/1/2006	See b)(2)c.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(D)	Particulate emissions (PE) and particulate matter emissions less than 10 microns in diameter (PM_{10}) shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Volatile organic compound (VOC) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Nitrogen oxide (NO_X) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Carbon monoxide (CO) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Sulfur dioxide (SO_2) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.
d.	OAC rule 3745-17-10(B)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-10(C)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	40 CFR Part 60, Subpart Dc (applicable to B006 through B013)	The emission limitation required by this applicable rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	OAC rule 3745-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	OAC rule 3745-18-53	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
i.	OAC rule 3745-110-02	Exempt, per OAC rule 3745-110-03(J)(16), the emissions unit does not have the ability to emit 25 tons per year of NO_X.

(2) Additional Terms and Conditions

a. When burning the following fuels, the mass emission limitations shall not exceed the accompanying emission levels:

Natural Gas
PE/PM_{10}: 0.16 pound per hour and 0.71 ton per year
VOC: 0.23 pound per hour and 1.01 tons per year
NO_X: 2.06 pounds per hour and 9.02 tons per year
CO 1.73 pounds per hour and 7.58 tons per year
SO_2: 0.01 pound per hour and 0.04 ton per year

#2 Fuel Oil
PE/PM_{10}: 0.50 pound per hour and 2.19 tons per year
VOC: 0.08 pound per hour and 0.35 ton per year
NO_X: 3.00 pounds per hour and 13.14 tons per year
CO: 0.75 pound per hour and 3.29 tons per year
SO_2: 10.8 pounds per hour and 47.30 tons per year

On-Spec Used Oil
PE/PM_{10}: 7.01 pounds per hour and 30.71 tons per year
VOC: 0.15 pound per hour and 0.66 ton per year
NO_X: 2.85 pounds per hour and 12.48 tons per year
CO: 0.75 pound per hour and 3.29 tons per year
SO_2: 11.03 pounds per hour and 48.31 tons per year

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the

December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO and VOC emissions from this air contaminant source since the uncontrolled potential to emit is less than 10 tons per year.

d. When oil is used as a fuel, the sulfur content shall not be greater than 0.5 weight percent sulfur.

e. Each shipment of oil burned in this emissions unit shall be "on-specification" (on-spec) oil and shall meet the used oil specifications contained in OAC rule 3745-279-11. The permittee shall determine that the used fuel oil meets these specifications by performing analyses or obtaining copies of analyses or other information from the supplier documenting that the used fuel oil does not exceed (except for flash point which shall not fall below) the following limitations:

Property/Contaminant Allowable Specifications

arsenic 5 ppm, maximum
cadmium 2 ppm, maximum
chromium 10 ppm, maximum
lead 100 ppm, maximum
total halogens less than 1,000 ppm; or 4,000 ppm maximum if the presumption that the used oil contains hazardous waste is rebutted, as described below
flash point 100°F, minimum

The used oil burned in this emissions unit shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3, and also shall not exceed the following mercury limitation nor fall below the following heating value:

PCB's less than 2 ppm
heat content 135,000 Btu/gallon, minimum
mercury 1 ppm, maximum

Used oil containing 1,000 ppm or greater total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may receive and burn used oil equaling or exceeding 1,000 ppm total halogens, but less than 4,000 ppm, only if the permittee has successfully demonstrated, pursuant to OAC rule 3745-279-63,that the used oil does not contain a listed hazardous waste, by either acquiring and maintaining source process information which demonstrates that the used oil was contaminated by halogenated constituents that would not be listed hazardous waste or by demonstrating that the used oil does not contain significant concentrations of halogens by acquiring and maintaining representative analytical data. Acceptable analytical test

protocols that can be used to analyze used oil for halogenated hazardous constituents include SW-846 Test Methods 9075, 9076, and 9077.*

If analytical results demonstrate that used oil containing 1,000 ppm or more total halogens, but less than 4,000 total halogens, does not contain greater than 100 ppm of any individual halogenated hazardous constituent found in the F001 and F002 listings in OAC rule 3745-51-31 and there is no information suggesting that any other halogenated hazardous constituent (e.g., chlorinated pesticides) has come in contact with the oil, then the presumption that the oil contains hazardous waste has been successfully rebutted.** The rebuttable presumption does not apply to either metal working oils/fluids containing chlorinated paraffins, if processed through a tolling arrangement as described in OAC rule 3745-279-24(C), or used oils contaminated with chlorofluorocarbons removed from refrigeration units.

The burning of used oil not meeting the above limitations is prohibited in this emissions unit and the fuel oil analyses shall document compliance with each limitation before it is burned. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils burned in this emissions unit meet all of the applicable requirements of this Chapter. If the used oil analyses shows total halogens of 1,000 ppm or greater, the permittee shall obtain and maintain all the necessary records to successfully rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste in accordance with this permit.

*EPA publication SW-846, 3rd (or most current) edition, is available from the Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954; 202/512-1800, document number 955-001-00000-1.

**DMWM policy documented in "Used Oil Burners - New Guidance for Rebuttable Presumption", published April 2008 or most current policy.

c) Operational Restrictions

(1) In order to limit the PE/PM_{10} emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of PE/PM_{10} shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)e.

Limiting the emissions of PE to less than 99.9 tons per year shall inherently limit the PM_{10} emissions to less than 99.9 tons per year; therefore, no additional monitoring, record keeping, reporting or testing for PM_{10} will be required.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(2) In order to limit the VOC emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of VOC shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)f.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(3) In order to limit the NO_X emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of NO_X shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)g.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(4) In order to limit the CO emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of CO shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)h.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(5) In order to limit the SO_2 emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of SO_2 shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(1)i.

The quality of the fuel burned in these emissions units shall meet a sulfur content that is sufficient to comply with the allowable SO_2 emission limitation specified in this permit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(6) The permittee shall burn only natural gas, #2 fuel oil, or on-spec used oil in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(7) The permittee may not receive or burn any used oil which does not meet the standards in OAC rule 3745-279-11 and the specifications listed in this permit without first obtaining a permit-to-install or permit-to-install and operate that authorizes the burning of off-specification used oil. The burning of off-specification used oil, subject to OAC rule 3745-279-60 through 67, is prohibited as a fuel in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the total volume of natural gas (MCF) burned in this emissions unit;

b. the total number of gallons of on-spec used oil burned in this emissions unit;

c. the total number of gallons of #2 fuel oil burned in this emissions unit;

d. the total number of hours the emissions unit was in operation;

e. the total summation of the amount of PE/PM_{10} emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

f. the total summation of the amount of NO_X emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

g. the total summation of the amount of SO_2 emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

h. the total summation of the amount of CO emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period; and

i. the total summation of the amount of VOC emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(3) The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit (or if the oil is generated on site, the permittee shall conduct the chemical analyses), which shall contain the following information:

a. the date the used oil was received at the facility and the amount received;

b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/refiner, supplier, and/or marketer;

c. the results of the following chemical analyses, demonstrating that the used oil meets the standards in OAC rule 3745-279-11:

i. arsenic content, in ppm;

ii. the cadmium content, in ppm;

iii. the chromium content, in ppm;

iv. the lead content, in ppm;

v. total halogens, in ppm; and

vi. the flash point;

d. where the chemical analysis shows a total halogen content between 1,000 ppm, and below 4,000 ppm, the successful demonstration for the rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste, as described in OAC rule 3745-279-63(C); and

e. the results of the analyses demonstrating that the used oil meets the heating value and the mercury and PCB limitations contained in this permit.

Each analysis shall be kept in a readily accessible location for a period of not less than 5 years* following the receipt of each shipment of used oil and shall be made available to the Ohio EPA Division of Materials and Waste Management and/or the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses through an independent laboratory.

*The Division of Air Pollution Control requires these records to be maintained for 5 years.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. any exceedance of the 99.9 tons per year PE/PM_{10}, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

ii. any exceedance of the 99.9 tons per year VOC, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iii. any exceedance of the 99.9 tons per year NO_X, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iv. any exceedance of the 99.9 tons per year CO, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined; and

v. anyexceedance of the 99.9 tons per year SO_2, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions);

d. the magnitude and duration of each deviation (excursion);

e. any exceedance of the used oil standards in OAC rule 3745-279-11;

f. any occasion where used oil containing 1,000 ppm or more total halogens was burned prior to receiving information demonstrating a successful rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste;

g. any exceedance of the limitations for mercury and/or PCBs;

h. any deviation from the minimum heat content of 135,000 Btu/gallon; and

i. any deviation from the minimum heat content limitation on the oil, Btu/gallon.

If no deviations (excursion) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) Where the analytical results for any shipment of used oil burned in this emissions unit establish that the used oil contains total halogens greater than 1,000 ppm, but less than 4,000 ppm, the results of the analysis for total halogens (from the appropriate test Method 9075, 9076, or 9077) and the information obtained to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste shall be submitted to the appropriate District Office or local air agency. Each rebuttal demonstration shall include:

a. the date the used oil was received;

b. the facility location or identification number where the oil was or will be burned;

c. the amount of oil in the shipment; and

d. all information, including all the analytical results, relied upon by the permittee to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(3) The rebuttal demonstrations for used oil received from October to December shall be submitted by January 31; used oil received from January to March, by April 30; used oil received from April to June, by July 31; and used oil received from July to September, by October 31.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

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 Limitations:

When burning natural gas:

PE/PM_{10} emissions shall not exceed 0.16 lb/hr.
VOC emissions shall not exceed 0.23 lb/hr.
NO_X emissions shall not exceed 2.06 lbs/hr.
CO emissions shall not exceed 1.73 lbs/hr.
SO_2 emissions shall not exceed 0.01 lb/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation:

Ep = EFp x NG/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);
pollutant(PE/PM_{10}) = 7.6 lbs of PE/10^6scf of gas burned
pollutant(VOC) = 11 lbs of VOC/10^6scf of gas burned
pollutant(NO_X) = 100 lbs of NO_X/10^6scf of gas burned
pollutant(CO) = 84 lbs of CO/10^6scf of gas burned
pollutant(SO_2) = 0.6 lb of SO_2/10^6scf of gas burned

NG = amount of gas burned in the emissions unit (CF), per d)(1)a; and
H = number of hours boiler was burning natural gas.

b. Emission Limitations:

When burning #2 fuel oil:

PE/PM_{10} emissions shall not exceed 0.50 lb/hr.
VOC emissions shall not exceed 0.08 lb/hr.
NO_X emissions shall not exceed 3.00 lbs/hr.
CO emissions shall not exceed 0.75 lb/hr.
SO_2 emissions shall not exceed 10.80 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation for PE/PM_{10}, VOC, NO_X and CO:

Ep = EFp x F/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 through Table 1.3-3 (9/98);
pollutant(PE/PM_{10}) = 3.3 lbs of PE/1000 gallons of #2 fuel oil burned
pollutant(VOC) = 0.556 lb of VOC/1000 gallons of #2 fuel oil burned
pollutant(NO_X) = 20 lbs of NO_X/1000 gallons of #2 fuel oil burned
pollutant(CO) = 5 lbs of CO/1000 gallons of #2 fuel oil burned
F = amount of #2 fuel oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning #2 fuel oil.

Compliance shall be demonstrated by using the following equation for SO_2:

E = EF x S x F/H

where:

E = emissions of sulfur dioxide, lb/hr;
EF = emission factor of 144 lbs of SO_2/1000 gallons from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 and Table 1.3-2 (9/98);
S = weight percent sulfur in used oil, if sulfur content is 0.5% then S = 0.5;
F = amount of #2 fuel oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning #2 fuel oil.

c. Emission Limitations:

When burning on-spec used oil:

PE/PM_{10} emissions shall not exceed 7.01 lbs/hr.
VOC emissions shall not exceed 0.15 lb/hr.
NO_X emissions shall not exceed 2.85 lbs/hr.
CO emissions shall not exceed 0.75 lb/hr.
SO_2 emissions shall not exceed 11.03 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by using the following equation for PE/PM_{10}:

E = EF x A x U/H

where:

E = emissions of particulate emissions, lb/hr;
EF = emission factor of 64 lbs of PE/1000 gallons of on-spec used oil burned from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-1, (10/96);
A = weight percent ash in on-spec used oil, if ash content is 0.73% then A= 0.73;
U = amount of on-spec oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec fuel oil.

Compliance shall be demonstrated by using the following equation for VOC, NO_X and CO:

Ep = EFp x U/H

where:

Ep = emissions (of pollutant p), lb/hr;
EFp = emission factor (for pollutant p) from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-2, Table 1.11-3, (10/96);
pollutant(VOC) = 1 lb of VOC/1000 gallons of on-spec used oil burned
pollutant(NO_X) = 19 lbs of NO_X/1000 gallons of on-spec used oil burned
pollutant(CO) = 5 lbs of CO/1000 gallons of on-spec used oil burned
U = amount of on-spec oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec fuel oil.

Compliance shall be demonstrated by using the following equation for SO_2:

E = EF x S x F/H

where:

E = emissions of sulfur dioxide, lb/hr;
EF = emission factor of 147 lbs of SO_2/1000 gallons from AP-42, "Compilation of Air Pollutant Emission Factors", Volume 1, Fifth Edition, Section 1.11, Table 1.11-1 (10/96);
S = weight percent sulfur in on-spec used oil, if sulfur content is 0.5% then S=0.5;

F = amount of on-spec used oil burned in this emissions unit (gallons); and
H = number of hours boiler was burning on-spec used oil.

d. Emission Limitation:

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE/PM_{10} emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The PE/PM_{10} emissions shall be determined by the value recorded in d)(1)e, based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 2 pounds of filterable PM per 1000 gallons of #2 fuel oil burned, which is the emission factor for filterable PM per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Auo = the percent ash content of used oil burned, i.e., if ash content is 1%, then A = 1;

EFuo = 64 pounds of PM per 1000 gallons of used oil burned, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-1 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 1.9 pounds of filterable PM per million cubic feet of natural gas burned, which is the emission factor for filterable PM total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = heat content determined during the most recent fuel analysis, or in the absence of data, assumed to be 6500 Btu per pound of wood; and

EFwood = 0.054 pound of filterable PM per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-1 (9/03) for wood boilers controlled by and ESP, or the emission rate determined by the most recent emission test of this or an identical emissions unit.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitation:

VOC emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The VOC emissions shall be determined by the value recorded in d)(1)i, based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 0.34 pound of NMTOC* per 1000 gallons of #2 fuel oil burned, which is the emission factor for commercial/institutional/residential combustors for non-methane total organic compounds per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo* = 1.0 pound of TOC* per 1000 gallons of used oil burned, which is the emission factor for TOC per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-3 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 5.5 pounds of VOC per million cubic feet of natural gas burned, which is the emission factor for VOC total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood =0.017 pound of VOC per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-3 (9/03).

* in the absence of VOC emission data, TOC or NMTOC emission factors shall be used.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 25, 25A or 18.

g. Emission Limitation:

NO_X emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The NO_X emissions shall be determined by the value recorded in d)(1)f, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 20 pounds of NO_X per 1000 gallons of #2 fuel oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 19 pounds of NO_X per 1000 gallons of used oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 100 pounds of NO_X per million cubic feet of natural gas burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the fuel analysis of the monthly composite sample; and

EFwood = 0.49 pound of NO_X per million Btu, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03) for dry wood, or the emission rate determined during the most recent emission test event for the representative the fuel moisture content.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 7.

h. Emission Limitation:

CO emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The CO emissions shall be determined by the value recorded in d)(1)h, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 5 pounds of CO per 1000 gallons of #2 fuel oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 5.0 pounds of CO per 1000 gallons of used oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 84 pounds of CO per million cubic feet of natural gas burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-1 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.60 pound of CO per million Btu, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 10.

i. Emission Limitation:

SO_2 emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The SO_2 emissions shall be determined by the value recorded in d)(1)g, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x Soil x EFoil}) + (\text{Muo x Suo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

Soil = the weight percent of sulfur in the fuel oil, as a volume- weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFoil = 144 pounds of SO_2 and SO_3 per 1000 gallons of #2 fuel oil burned, which is the emission factors for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Suo = the weight percent of sulfur in the used oil, as a volume-weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFuo = 147 pounds of SO_2 per 1000 gallons of used oil burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 0.6 pound of SO_2 per million cubic feet of natural gas burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.025 pound of SO_2 per million Btu, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6.

j. Emission Limitation:

When burning natural gas:

PE/PM_{10} emissions shall not exceed 0.71 ton per year.
VOC emissions shall not exceed 1.01 tons per year.
NO_X emissions shall not exceed 9.02 tons per year.
CO emissions shall not exceed 7.58 tons per year.
SO_2 emissions shall not exceed 0.04 ton per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

k. Emission Limitation:

When burning #2 fuel oil:

PE/PM_{10} emissions shall not exceed 2.19 tons per year.
VOC emissions shall not exceed 0.35 ton per year.
NO_X emissions shall not exceed 13.14 tons per year.
CO emissions shall not exceed 3.29 tons per year.
SO_2 emissions shall not exceed 47.30 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

l. Emission Limitation:

When burning on-spec used oil:

PE/PM_{10} emissions shall not exceed 30.70 tons per year.
VOC emissions shall not exceed 0.66 ton per year.
NO_X emissions shall not exceed 12.48 tons per year.
CO emissions shall not exceed 3.29 tons per year.
SO_2 emissions shall not exceed 48.31 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation by the annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

m. Emission Limitation:

When oil is used as a fuel, the sulfur content shall not be greater than 0.5 weight percent sulfur.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) The concentrations of contaminants (arsenic, barium, cadmium, chromium, lead, mercury, PCBs, and total halogens) in the used oil shall be analyzed using a “total constituent analysis” method, as specified in U.S. EPA publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The applicable test methods that should be used are as follows:

Arsenic, barium, cadmium, chromium, and lead: SW-846, Method 3031 or 3051 (digestion procedures) followed by analysis using Method 6010B or 6020;
Mercury: SW-846, Method 7471A;

PCBs: SW-846, Method 8270C or 8082; and

Total halogens: SW-846, Method 9075, 9076, or 9077.

The permittee shall submit a written request and receive approval from Ohio EPA Division of Materials and Waste Management and/or the Division of Air Pollution Control, of Central Office, before an alternative test method, not listed above, can be used for the total constituent analysis of the above-mentioned used oil contaminants.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

g) Miscellaneous Requirements

(1) None.

5. Emissions Unit Group - 29.7 mmBtu/hr (with limits): B015,B016,B017,B018,B019,

EU ID	Operations, Property and/or Equipment Description
B015	29.7 mmBtu/hr heat input rated,Vyncke wood burning boiler #1 for hot water. Equipped with an Electrostatic Precipitator for particulate emission control.
B016	29.7 mmBtu/hr heat input rated, Vyncke wood burning boiler #2 for hot water. Equipped with an Electrostatic Precipitator for particulate emission control.
B017	29.7 mmBtu/hr heat input rated, Vyncke wood burning boiler #3 for hot water. Equipped with an Electrostatic Precipitator for particulate emission control.
B018	29.7 mmBtu/hr heat input rated, Vyncke wood burning boiler #4 for hot water. Equipped with an Electrostatic Precipitator for particulate emission control.
B019	29.7 mmBtu/hr heat input rated, Vyncke wood burning boiler #5 for hot water. Equipped with an Electrostatic Precipitator for particulate emission control.

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.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	Particulate emissions (PE) shall not exceed 0.10 lb/mmBtu and 13.0 tons per year. Nitrogen oxides (NO_X) emissions shall not exceed 0.49 lb/mmBtu and 63.7 tons per year Carbon monoxide (CO) emissions shall not exceed 0.60 lb/mmBtu and 78.1 tons per year. Sulfur dioxide (SO_2) emissions shall not exceed 0.74 pound per hour and 3.24 tons per year. Volatile organic compound (VOC) emissions shall not exceed 1.16 pounds per hour and 5.08 tons per year.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See b)(2)a.
b.	OAC rule 3745-31-05(A)(3) as effective 12/01/2006	See b)(2)b.
c.	OAC rule 3745-31-05(D)(1)	Particulate emissions (PE) and particulate matter emissions less than 10 microns (PM_{10}) shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Volatile organic compound (VOC) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Nitrogen oxide (NO_X) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Carbon monoxide (CO) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined. Sulfur dioxide (SO_2) emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-10(C)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-110-03	See b)(2)c.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled volatile organic compounds (VOC) emissions and the sulfur dioxide (SO_2) emissions from this air contaminant source since the potential to emit for VOC and SO_2 is less than ten tons per year. Uncontrolled VOC and SO_2 emissions are calculated with the emission factors in AP-42, Chapter 1.6, Wood Residue Combustion.

c. The permittee shall annually perform or have performed a tune-up of this emissions unit.

c) Operational Restrictions

(1) In order to limit the PE/PM_{10} emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of PE/PM_{10} shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(2)f.

Limiting the emissions of PE to less than 99.9 tons per year shall inherently limit the PM_{10} emissions to less than 99.9 tons per year; therefore, no additional monitoring, record keeping, reporting or testing for PM_{10} will be required.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(2) In order to limit the VOC emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of VOC shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(2)g.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(3) In order to limit the NO_X emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of NO_X shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(2)h.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(4) In order to limit the CO emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of CO shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(2)i.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(5) In order to limit the SO_2 emissions from the facility, the permittee shall restrict the use of fuels burned in emissions units B001 through B013 and B015 through B019, combined, such that the emissions of SO_2 shall not exceed 99.9 tons per year, and shall be calculated in accordance with the formula in f)(2)j.

The quality of the fuel burned in these emissions units shall meet a sulfur content that is sufficient to comply with the allowable SO_2 emission limitation specified in this permit. The permittee shall only burn wood in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(6) The permittee shall only burn wood in this emissions unit

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(7) The permittee shall not burn wood or wood waste derived from any operation which coats, treats, or otherwise contaminates the wood or wood waste.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

(8) The permittee shall operate each ESP during any operation of the corresponding emissions unit, except the ESP may not be operated during periods of start-up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI P0110185]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the total weight, in tons, of wood burned in this emissions unit;

b. the total number of hours the emissions unit was in operation;

c. the total summation of the amount of particulate emissions (PE) and particulate matter less than 10 microns (PM_{10}) emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

d. the total summation of the amount of nitrogen oxides (NO_X) emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

e. the total summation of the amount of sulfur dioxide (SO_2) emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period;

f. the total summation of the amount of carbon monoxide (CO) emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period; and

g. the total summation of the amount of volatile organic compounds (VOC) emitted, from emissions units B001 through B013 and B015 through B019, combined, per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range of the secondary voltage and current for each field of the ESP shall be between 20 to 55 kilovolts and 5 to 300 milliamps.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(3) The operation of any control equipment outside of the restrictions established above may or may not indicate a mass emission violation. If required by the Ohio EPA, compliance with the mass emission limitations shall be determined by performing concurrent mass emission tests and parameter readings, using USEPA - approved methods and procedures. The results of any required emissions tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of the restrictions specified above is indicative of a violation of the mass emission limitations.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the following on an hourly basis during any operation of each ESP:

a. the secondary voltage, in kilovolts, and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;

b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and

c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable secondary voltage and current settings shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(5) Whenever the monitored value for the voltage and/or current within a field deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s) at or above the minimum voltage and current limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the secondary voltage and current readings for each field immediately after the corrective action; and

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(6) These secondary voltage and current range(s) or minimum limit(s) for each ESP are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to these range(s) or minimum voltage and current limits based upon information obtained during future tests that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to these range(s) or minimum voltage and current limit(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(7) The permittee shall operate and maintain a temperature monitor and recorder for each emissions unit that measures and records the temperature of the emissions unit exhaust gases entering each ESP as follows:

a. during all periods of start-up until the ESP is operational or until the exhaust gas prior to the inlet of the ESP achieves a temperature of 250 degrees Fahrenheit; and

b. during all periods of shutdown until the exhaust gas prior to the inlet of the ESP drops below 250 degrees Fahrenheit.

The temperature monitor and recorder 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 temperature of the emissions unit exhaust gases in degrees Fahrenheit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(8) The permittee shall maintain, in a permanently bound log book, or other format approved in writing by the Ohio EPA, the following:

a. the date of the last tune-up;

b. the name, title, and affiliation of the person who performed the tune-up; and

c. a list of adjustments made during the annual tune-up.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. any exceedance of the 99.9 tons per year PE/PM_{10}, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

ii. any exceedance of the 99.9 tons per year VOC, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iii. any exceedance of the 99.9 tons per year NO_X, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

iv. any exceedance of the 99.9 tons per year CO, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined; and

v. any exceedance of the 99.9 tons per year SO_2, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined;

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

If no deviations (excursion) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) The permittee shall submit an annual report that includes the following information concerning the operations of the ESP during the 12-month reporting period for this/these emissions unit(s):

a. each period of time (start time and date, and end time and date) when the secondary voltage and current for each field within the ESP was outside of the range(s) or at or above the minimum limit(s) specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the ESP;

c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the ESP into compliance with the acceptable range(s) or limit(s) for secondary voltage and current, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

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:

PE emissions shall not exceed 0.10 lb/mmBtu.
NO_X emissions shall not exceed 0.49 lb/mmBtu.
CO emissions shall not exceed 0.60 lb/mmBtu.

Applicable Compliance Method:

Compliance shall be demonstrated through the emission testing requirements specified in f)(1).

b. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

c. Emission Limitation:

PE shall not exceed 13.0 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation (0.10 lb/mmBtu) by the maximum heat input of the boiler (29.7 mmBtu/hr) and by the maximum annual hours of operation (8,760

hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

d. Emission Limitation:

NO_X emissions shall not exceed 63.7 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation (0.49 lb/mmBtu) by the maximum heat input of the boiler (29.7 mmBtu/hr) and by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

e. Emission Limitation:

CO emissions shall not exceed 78.1 tons per year

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation (0.60 lb/mmBtu) by the maximum heat input of the boiler (29.7 mmBtu/hr) and by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

f. Emission Limitation:

PE/PM_{10} emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The PE/PM_{10} emissions shall be determined by the value recorded in d)(1)c, based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 2 pounds of filterable PM per 1000 gallons of #2 fuel oil burned, which is the emission factor for filterable PM per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Auo = the percent ash content of used oil burned, i.e., if ash content is 1%, then A = 1;

EFuo = 64 pounds of PM per 1000 gallons of used oil burned, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-1 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 1.9 pounds of filterable PM per million cubic feet of natural gas burned, which is the emission factor for filterable PM total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = heat content determined during the most recent fuel analysis, or in the absence of data, assumed to be 6500 Btu per pound of wood; and

EFwood = 0.054 pound of filterable PM per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-1 (9/03) for wood boilers controlled by and ESP, or the emission rate determined by the most recent emission test of this or an identical emissions unit.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

g. <u>Emission Limitation:</u>

VOC emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

<u>Applicable Compliance Method</u>:

The VOC emissions shall be determined by the value recorded in d)(1)g, based upon the following equation:

$$\sum_{B=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x Auo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 0.34 pound of NMTOC* per 1000 gallons of #2 fuel oil burned, which is the emission factor for commercial/institutional/residential combustors for non-methane total organic compounds per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo* = 1.0 pound of TOC* per 1000 gallons of used oil burned, which is the emission factor for TOC per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-3 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 5.5 pounds of VOC per million cubic feet of natural gas burned, which is the emission factor for VOC total per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood =0.017 pound of VOC per million Btu, which is the emission factor for PM per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-3 (9/03).

* in the absence of VOC emission data, TOC or NMTOC emission factors shall be used.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 25, 25A or 18.

h. Emission Limitation:

NO_X emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The NO_X emissions shall be determined by the value recorded in d)(1)d, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 20 pounds of NO_X per 1000 gallons of #2 fuel oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 19 pounds of NO_X per 1000 gallons of used oil burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 100 pounds of NO_X per million cubic feet of natural gas burned, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the fuel analysis of the monthly composite sample; and

EFwood = 0.49 pound of NO_X per million Btu, which is the emission factor for NO_X per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03) for dry wood, or the emission rate determined during the most recent emission test event for the representative the fuel moisture content.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 7.

i. Emission Limitation:

CO emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The CO emissions shall be determined by the value recorded in d)(1)f, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x EFoil}) + (\text{Muo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

EFoil = 5 pounds of CO per 1000 gallons of #2 fuel oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

EFuo = 5.0 pounds of CO per 1000 gallons of used oil burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 84 pounds of CO per million cubic feet of natural gas burned, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-1 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.60 pound of CO per million Btu, which is the emission factor for CO per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 10.

j. Emission Limitation:

SO_2 emissions shall not exceed 99.9 tons per year, as a rolling, 12-month summation, from emissions units B001 through B013 and B015 through B019, combined.

Applicable Compliance Method:

The SO_2 emissions shall be determined by the value recorded in d)(1)e, based upon the following equation:

$$\sum_{n=B001}^{n=B019} (\text{Moil x Soil x EFoil}) + (\text{Muo x Suo x EFuo}) + (\text{Mng x EFng}) + (\text{Mwood x Hwood x EFwood})$$

where:

Moil = the total #2 fuel oil burned, in gallons per month;

Soil = the weight percent of sulfur in the fuel oil, as a volume- weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFoil = 144 pounds of SO_2 and SO_3 per 1000 gallons of #2 fuel oil burned, which is the emission factors for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.3, Table 1.3-1 (9/98);

Muo = the total used oil burned, in gallons per month;

Suo = the weight percent of sulfur in the used oil, as a volume-weighted average for the month, i.e., if sulfur is 1%, then S=1;

EFuo = 147 pounds of SO_2 per 1000 gallons of used oil burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.11, Table 1.11-2 (10/96);

Mng = the total natural gas burned, in million cubic feet per month;

EFng = 0.6 pound of SO_2 per million cubic feet of natural gas burned, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.4, Table 1.4-2 (7/98);

Mwood = the total wood waste burned, in pounds per month;

Hwood = the average heat content of wood waste, assumed to be 6500 Btu per pound of wood, or the heat content determined during the most recent fuel analysis; and

EFwood = 0.025 pound of SO_2 per million Btu, which is the emission factor for SO_2 per AP-42, Volume 1, Fifth Edition, Section 1.6, Table 1.6-2 (9/03).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 6.

k. <u>Emission Limitation:</u>

SO_2 emissions shall not exceed 0.74 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated through the use of an SO_2 emission factor obtained from AP-42, Volume 1, Fifth Edition, Chapter 1, Table 1.6-2 equal to 0.025 lb/mmBtu of actual heat input multiplied by the emissions unit heat input of 29.7 mmBtu/hr.

If required, compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

l. Emission Limitation:

SO_2 emissions shall not exceed 3.24 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation (0.74 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

m. Emission Limitation:

VOC emissions shall not exceed 1.16 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated through the use of an OC emission factor obtained from AP-42, Volume 1, Fifth Edition, Chapter 1, Table 1.6-3 equal to 0.039 lb/mmBtu of actual heat input multiplied by the emissions unit heat input of 29.7 mmBtu/hr.

If required, compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 or 25A.

n. Emission Limitation:

VOC emissions shall not exceed 5.08 tons per year.

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable emission limitation (1.16 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI P0110185]

(2) The permittee shall conduct, or have conducted, emission testing for one emissions unit as a representative of this group of emissions units in accordance with the following requirements:

a. No later than 6 months after permit issuance and issuance of subsequent permit renewals, the facility shall test at least one (1) emissions unit, rotating through the existing emissions units until all have been tested at least once, then continuing to rotate through the emissions units in the order in which they were initially tested.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, NO_X and CO when burning wood.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PE - Method 5 of 40 CFR Part 60, Appendix A;

forNO_x - Method 7 of 40 CFR Part 60, Appendix A; and

for CO - Method 10 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. 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.

e. 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).

f. 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.

g. 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 30 days following completion of the test(s). The permittee may 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) and PTI P0110185]

g) Miscellaneous Requirements

(1) None.