

IV. FINDINGS

The Director makes the following findings:

1. Respondent City owns heating (steam heat) and cooling (cold water production) facilities ("facilities") that include six boilers located at 226 Opportunity Parkway in Akron, three in one building and three in an adjacent building. One of these boilers has been shut down. The remaining five boilers make up a Title V source, as that term is defined in OAC 3745-77-01(PP).
2. The City leased the facilities to Akron Thermal, Limited Partnership and Akron Thermal Cooling, LLC (collectively, "Akron Thermal"). Akron Thermal operated these facilities and provided the heating and cooling services to the facilities' customers, which include three hospitals, University of Akron buildings, and various downtown Akron office buildings.
3. Akron Thermal's operation of any or all of these boilers was and is governed by a Title V permit issued by the Director. At the time the facilities were operated by Akron Thermal, the facilities were a public utility with rates that were governed by the Public Utilities Commission of Ohio ("PUCO").
4. On September 8, 2009, Akron Thermal ceased operating the heating and cooling facilities. Akron Thermal has since filed a petition in bankruptcy and sought the protection of the bankruptcy court. Faced with the need for uninterrupted heating and cooling services, Respondent City contracted with Respondent Akron Energy to operate the facilities. Respondent Akron Energy has been operating the facilities on behalf of Respondent City since September of 2009.
5. Pursuant to OAC 3745-77-02, a Title V source such as Respondent City's heating and cooling facilities, may not be operated by the owner or other operator without a "Title V permit," as that term is defined at OAC 3745-77-01(OO).
6. A Title V permit may be transferred. OAC 3745-77-01(C) provides that such change in ownership or operational control of a source may be treated as an "administrative permit amendment" where "no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the director."
7. Since September of 2009, several actions have been taken with the goal of transferring the Title V permit issued to Akron Thermal, to the City. None of these actions has resulted in the transfer of the Title V permit to either Respondent. For example, within a September 30, 2009 objection to Debtor Akron Thermal's motion to reject its lease with the City, Respondent City requested the United States Bankruptcy Court for the

Northern District of Ohio to order the Debtor Akron Thermal to return to Respondent City "any and all permits." *Page 2, Order of the Court denying request, filed December 2, 2009.* On December 2, 2009, the Court entered an order denying Respondent City's motion.

8. In addition, on October 7, 2009, the PUCO ordered Akron Thermal to "transfer . . . any permits necessary to operate" the steam and hot water producing facilities to Respondent City. Akron Thermal has not made the transfer of the permits.

9. Since September of 2009, Respondents have operated the heating and cooling facilities without a Title V permit that was issued in the name of either Respondent, in violation of OAC 3745-77-02.

10. Respondents' violation of OAC 3745-77-02 is also a violation of ORC 3704.05(G), which provides that no person shall violate any order, rule or determination of the director issued, adopted, or made under ORC Chapter 3704. OAC 3745-77-02 is a rule adopted under ORC Chapter 3704.

11. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and their relation to benefits to the people of the State to be derived from such compliance.

V. ORDERS

The Director hereby orders that by no later than September 1, 2010, Respondent City shall submit a complete application (or two separate applications) for a permit-to-install for the inclusion of shredded tires as a fuel component in Boiler Nos. 1 and 2, and to burn a restricted quantity of waste oil in Boiler No. 3. By no later than November 15, 2010, Respondent City shall submit a complete application for a Title V permit authorizing Respondent City (on its own and/or through an agent such as Respondent Akron Energy) to operate the boilers at the heating and cooling facilities. Respondent City shall make all reasonable efforts to obtain the permit(s)-to-install and Title V permit as expeditiously as possible. Prior to issuance of the permit(s)-to-install and Title V permit to Respondent City, Respondents shall operate the boilers only in compliance with the terms and conditions contained in the attached Exhibits A, B and C. Respondent City shall not be required to submit either application and/or obtain a permit-to-install or Title V permit as required by these Orders if the Director approves a transfer of the existing permits-to-install and Title V permit for the heating and cooling facilities from Akron Thermal to Respondent City.

VI. TERMINATION

Respondents' obligations under these Orders shall terminate when Respondents

certify in writing and demonstrate to the satisfaction of Ohio EPA that Respondents have performed all obligations under these Orders and the Chief of Ohio EPA's Division of Air Pollution Control acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondents of the obligations that have not been performed, in which case Respondents shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondents to Ohio EPA and shall be signed by a responsible official of each Respondent. For purposes of these Orders, a responsible official is as defined in OAC 3745-77-01(II)(1) for a corporation or a duly authorized representative of each Respondent as that term is defined in the above-referenced rule.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to, the operation of Respondents' facility.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, State, and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondents.

IX. MODIFICATIONS

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

X. NOTICE

All documents required to be submitted by Respondents, or either of them, pursuant to these Orders shall be addressed to:

Akron Air Pollution Control
146 South High Street
Room 904
Akron, Ohio 44308
Attention: Frank Markunas, Director

and to:

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Air Pollution Control
P.O. Box 1049
Columbus, Ohio 43216-1049
Attention: Thomas Kalman, Manager, Enforcement Section

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

XI. RESERVATION OF RIGHTS

Ohio EPA and Respondents each reserve all rights, privileges, and causes of action, except as specifically waived in Section XII of these Orders.

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation, or liability, and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders, Respondents consent to the issuance of these Orders and agree to comply with these Orders. Compliance with these Orders shall be a full accord and satisfaction for the Respondents' liability for the violations specifically cited herein.

Respondents hereby waive the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondents waive any and all rights Respondents may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and the Respondents agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondents retain the right to intervene and participate in such appeal. In such an event, Respondents shall continue to comply with these Orders notwithstanding such appeal and intervention unless said Orders are stayed, vacated, or modified.

XIII. EFFECTIVE DATE

The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director=s journal.

XIV. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

ORDERED AND AGREED:

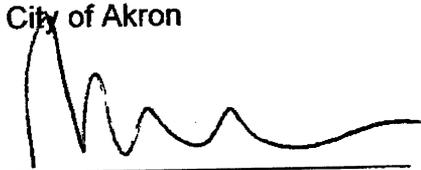
Ohio Environmental Protection Agency


Chris Korleski
Director

Date 7/1/10

AGREED:

City of Akron


Signature

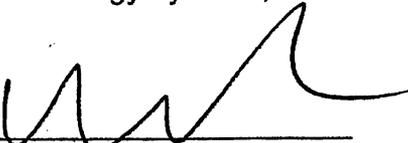
Date 6/25/10

Richard A. Merolla
Printed or Typed Name

Director of Public Service
Title

AGREED:

Akron Energy Systems, LLC



Signature

6-25-10
Date

Charles Evans
Printed or Typed Name

Managing Member
Title

ATTACHMENT A

TO DIRECTOR'S FINDINGS AND ORDERS

These terms and conditions are taken from the existing Title V permit. However, regardless of any reference herein to the term, "permit," these terms and conditions do not constitute a Title V permit for either the City of Akron or Akron Energy Systems LLC



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Title V Permit to Control Air Pollution
OAC Chapter 3745-77
 [RESERVED]

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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:



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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) constitutes a violation of an emission limitation (or control requirement) and, therefore, 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.



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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 Akron Regional Air Quality Management District.

(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))



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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



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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.



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- 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



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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



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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 Requirements Under 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 Requirements Under 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.



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B. Facility-Wide Terms and Conditions



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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) B.6

2. This facility is a major MACT source as described in section 112 of the Clean Air Act (CAA). As such, the permittee shall comply with the requirements of section 112 of CAA. OAC rule 3745-31-28 applies to a facility where a specific MACT category does not apply to it in section 112(D) of CAA, due to the decision to vacate 40 CFR Part 63, Subpart DDDDD. To comply with the requirements of OAC rule 3745-31-28, the permittee has committed to and shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD.

[OAC rule 3745-31-28, and OAC rule 3745-31-05]

3. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.

[OAC rule 3745-25-03]

4. Pursuant to 40 CFR Part 64, the permittee has submitted and the Ohio EPA has approved compliance assurance monitoring plan for emissions units B001, B003, B004, and B005 at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions units.

[40 CFR Part 64]

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

None.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

[OAC rule 3745-77-07(A)(13)]

6. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements (as defined in OAC rule 37-45-77-01(H)) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

Z001 – parts washer #1
Z002 - ash removal (coal);
Z003 - fuel oil tank;
Z004 - cooling towers;
Z005 – parts washer#2;
Z006 – ash removal (wood/TDF);
Z007 – parts washer #3; and
Z008 parts washer #4.



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7.

C. Emissions Unit Terms and Conditions



1. B001, Boiler #32

Operations, Property and/or Equipment Description:

220 MMBtu/hr Spreader Stoker Fired Coal Boiler

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)e, c)(3)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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 3745-17-07(A)	See b)(2)a below.
b.	OAC rule 3745-17-10(C)(1)	0.158 pound of particulate emissions (PE) per million Btu actual heat input
c.	40 CFR Part 52.1881(b)(28)(viii)	7.0 pounds of sulfur dioxide (SO ₂) per million Btu actual heat input See c.2 below.
d.	40 CFR Part 64	See c)(1), d)(1), d)(3), d)(5), e)(2), e)(3), and g)(1) below.
e.	OAC rule 3745-18-83(l)	7.0 pounds of SO ₂ per million Btu actual heat input See c)(3) below.

(2) Additional Terms and Conditions

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

c) Operational Restrictions

(1) The quality of the coal burned in this emissions unit shall meet the following specifications on an as-burned wet basis:

a. less than 12% ash, by weight;



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- b. a sulfur content which is sufficient to comply with the allowable SO₂ emission limitation of 7.0 pounds of sulfur dioxide per million Btu actual heat input; and
- c. greater than 12,000 Btu per pound of coal.

Compliance with the above-mentioned specifications shall be on an "as-burned" wet basis and shall be determined by using the analytical results from the composite sample of coal collected during each calendar month.

[OAC rule 3745-77-07(A)(1) and 40 CFR Part 64.3(a)(2)]

- (2) The permittee shall not operate boiler number 27 simultaneously with boiler number 32 (emissions unit B001).

Because boiler number 27 has been shut down, the records necessary to demonstrate compliance with this requirement need not be maintained. This permit will be modified upon completion of any revision to 40 CFR Part 52.1881(b)(28)(viii).

[40 CFR Part 52.1881(b)(28)(viii)]

- (3) Combined average operating rates for boilers numbers 27 and 32 shall not exceed the following for any calendar day:
 - a. first quarter, 360 million Btu per hour;
 - b. second quarter, 360 million Btu per hour;
 - c. third quarter, 231 million Btu per hour; and
 - d. fourth quarter, 360 million Btu per hour.

Because boiler number 27 has been shut down and because the maximum heat input for boiler number 32 (emissions unit B001) is 220 million Btu per hour, the daily combined average operating rates for the first, second, third, and fourth quarters listed above cannot be exceeded. Therefore, the records necessary to demonstrate compliance with this requirement need not be maintained. This permit will be modified upon completion of any revision to OAC rule 3745-18-83(I).

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

- (1) The permittee shall collect representative grab samples of the coal burned in this emissions unit on a frequency of at least two days per week. A sufficient number of samples shall be collected so that each composite sample is representative of the average quality of coal burned in this emissions unit during each calendar day. The coal 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 coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content, and heat content shall be the most recent version of the following ASTM methods: ASTM method D3174, Ash in the Analysis of Coal and Coke;



ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865, Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval by the Akron RAQMD.

[OAC rule 3745-77-07(A)(3)(a)]

- (2) The permittee shall maintain monthly records of the total quantity of coal received and the results of the analyses for ash content, sulfur content, and heat content and the calculated SO₂ emission rate (in lbs/mmBtu) based upon a volume-weighted average of the calculated SO₂ emission rates for all shipments of coal during a calendar month.

[OAC rule 3745-77-07(A)(3)(b)]

- (3) The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the PE from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 1-minute, 6-minute block, and hourly average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

[OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a), 40 CFR Part 64.7(b), and 40 CFR Part 64.9(b)]

- (4) To obtain an exemption pursuant to OAC rule 3745-17-07(A)(3)(a)(i) or (A)(3)(b)(i), the permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP during (a) all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b) all periods of shutdown until the inlet temperature of the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i). An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

[OAC rule 3745-17-07(A)(3), OAC rule 3745-77-07(A)(3)(a), and OAC rule 3745-77-07(A)(3)(b)]



- (5) The CAM plan for this emissions unit has been developed for PE and visible PE. The CAM performance indicator for visible PE is the opacity from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system. The visible PE indicator range is 3 consecutive minutes with an average opacity value less than 20%. When the average opacity value is outside the indicator range, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP operating parameters) will be required. The CAM performance indicators for PE are the visible PE from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system and a predictive PE model based upon the results of site specific particulate emission testing and emissions unit and ESP parametric data collected during the emission testing. The opacity indicator range is an hourly average opacity value less than 20%. When the hourly average opacity value is outside the indicator range, there is no reporting or corrective action requirement relative to the PE limitation, but the operator must enter the current ESP and emissions unit operating parameters into the site specific model to predict the particulate emissions. If the hourly average opacity does not return to a level within the indicated range, the model is run every 3 hours to evaluate emissions. If the results of the predictive model indicate that the PE limitation may have been exceeded, the permittee shall take corrective action to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in section e)(3) below. The predictive model shall be run in accordance with the approved CAM Plan or any approved revision of the Plan. Model calibration will be re-verified through periodic emission testing or if the ESP or emissions unit operating conditions change. In addition to periodic monitoring of their ESP operating parameters, the permittee also has an annual inspection and maintenance program for their ESP. Based on the results of the monitoring and inspection program, repairs to the ESP are made per the manufacturer's recommendation. If the current CAM indicators and/or the ESP maintenance program is considered inadequate, the permittee will develop a Quality Improvement Plan.

[OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a), 40 CFR Part 64.6(c), 40 CFR Part 64.7(d), and 40 CFR Part 64.8]

e) Reporting Requirements

- (1) Quarterly reports shall be submitted concerning the quality and quantity of the coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:
- a. the total quantity of coal burned (tons);
 - b. the average ash content (percent) of the coal burned;
 - c. the average sulfur content (percent) of the coal burned;
 - d. the average heat content (Btu/pound) of the coal burned; and
 - e. the average SO₂ emission rate (pounds SO₂/mmBtu actual heat input) from the coal burned.



The reports containing this information shall be submitted on a quarterly basis within 30 days following the end of each calendar quarter to the Akron RAQMD.

[OAC rule 3745-77-07(A)(3)(c)]

- (2) The permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Akron RAQMD documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

[OAC rule 3745-77-07(A)(3)(c) and 40 CFR Part 64.9(a)]

- (3) If the results of the predictive model indicate that the particulate emission limitation may have been exceeded, the permittee shall submit the results of the predictive modeling and document any corrective action taken to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with General Term and Condition A.1.c.iii of this permit.

[40 CFR Part 64.7(d) and 40 CFR Part 64.9(a)]

f) Testing Requirements

- (1) Compliance with the emission limitations in sections b.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations -

- 0.158 pound of PE per million Btu actual heat input



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7.0 pounds of SO₂ per million Btu actual heat input

Applicable Compliance Methods -

Compliance with the SO₂ emission limitation may be demonstrated through the records required pursuant to section e)(1). Compliance with these emission limitations shall be demonstrated through the emission testing requirements specified below.

The permittee shall conduct, or have conducted, particulate and sulfur dioxide emission testing for this emissions unit to demonstrate compliance with the PE and SO₂ emission limitations in accordance with the following requirements:

- i. the emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal;
- ii. the following test methods shall be employed to demonstrate compliance with the allowable emission limitations: for PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A; and for SO₂, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A; and
- iii. the tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Akron RAQMD.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Akron RAQMD. 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 Akron RAQMD's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Akron RAQMD 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 Akron RAQMD.

[OAC rule 3745-15-04(A), OAC rule 3745-17-03(B)(9), OAC rule 3745-18-04(D)(1), and OAC rule 3745-77-07(A)(3)(c)]

b. Emission Limitation -

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



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Applicable Compliance Method -

Compliance with the visible PE limitation shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-15-04(A) and OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

- (1) The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

[OAC rule 3745-15-04(C), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a)(1), and 40 CFR Part 64.7(c)]



2. B002, Boiler #31

Operations, Property and/or Equipment Description:

267 MMBtu/hr Gas/Oil Fired Boiler

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) B)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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 3745-17-07(A)	See b)(2)a below.
b.	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu actual heat input
c.	40 CFR Part 52.1881(b)(28)(viii)	0.51 pound of sulfur dioxide (SO ₂) per million Btu actual heat input when firing with oil
d.	OAC rule 3745-18-83(l)	0.51 pound of SO ₂ per million Btu actual heat input

(2) Additional Terms and Conditions

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

c) Operational Restrictions

(1) The quality of the oil burned in this emissions unit shall meet the following specifications on an "as received" basis:

a. a sulfur content which is sufficient to comply with the allowable SO₂ emission limitation of 0.51 pound of SO₂ per million Btu actual heat input; and

b. greater than 139,000 Btu per gallon of oil.



Compliance with the above-mentioned specifications shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

[OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall monitor and record natural gas usage for this emissions unit on a continuous basis.

[OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-77-07(A)(3)(b)]

- (2) The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Akron RAQMD.

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 permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (lb/mmBtu).

[OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-77-07(A)(3)(b)]

- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-77-07(A)(3)(b)]

e) Reporting Requirements

- (1) The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil in each shipment and the calculated sulfur dioxide emission rate for each



shipment of oil shall also be included with the copies of the permittee's or oil supplier's analyses.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the oil shipments received during the previous calendar quarters.

If no oil was burned in this emissions unit during the calendar quarter, the permittee shall indicate in the quarterly report that no oil was burned.

[OAC rule 3745-77-07(A)(3)(c)]

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible PE were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible PE. These reports shall be submitted to the Director (the Akron RAQMD) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(A)(3)(c)]

f) Testing Requirements

- (1) Compliance with the emission limitations in section b.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation -

0.020 pound of PE per million Btu actual heat input

Applicable Compliance Methods-

When firing fuel oil, compliance may be determined by dividing an emission factor of 2.0 lbs of PE per 1000 gallons of oil fired by the heating value of the of the fuel oil (139,000 Btu/gallon). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1 (9/98).

When firing natural gas, compliance may be determined by dividing an emission factor of 1.9 pounds of PE per million standard cubic feet by the heating value of the natural gas (1000 Btu/standard cu. ft.). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

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 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9), while firing fuel oil.

[OAC rule 3745-15-04(A) and OAC rule 3745-17-03(B)(9)]

- b. Emission Limitation -

0.51 pound of SO₂ per million Btu actual heat input



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Applicable Compliance Method -

Compliance with this emission limitation may be demonstrated through the records required pursuant to section d.2.

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 1 through 4 and 6.

[OAC rule 3745-15-04(A) and OAC rule 3745-18-04(D)(1)]

c. Emission Limitation -

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

Applicable Compliance Method -

Compliance with the visible PE limitation shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-15-04(A) and OAC rule 3745-17-03(B)(1)]

g) Miscellaneous Requirements

(1) None.



3. B003, Unit #1

Operations, Property and/or Equipment Description:

B003 - Unit #1, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, and tire derived fuel (TDF) fired boiler for steam generation, controlled with an electrostatic precipitator

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) d)(9) – d)(12), e)(14).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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) (PTI 16-02294)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-09, 3745-17-1(B), 3745-18-06(D), 3745-31-05(D), 3745-31-(13) thru (20), and 40 CFR 60 Subpart Db.</p> <p>When burning natural gas exclusively, particulate emissions (PE) shall not exceed 0.02 lb/MMBtu of actual heat input.</p> <p>When burning a combination of the following fuels: natural gas, TDF and/or wood, PE shall not exceed 0.08 lb/MMBtu of actual heat input, and 14.4 lbs/hr of PE;</p> <p>nitrogen oxides (NO_x) emissions shall not exceed 0.24 lb/MMBtu of actual heat input, and 43.2 lbs/hr;</p> <p>sulfur dioxide (SO₂) emissions shall not exceed 0.28 lb/MMBtu of actual heat input, and 50.4 lbs/hr;</p> <p>carbon monoxide (CO) emissions shall not exceed 18.0 lbs/hr;</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>organic compounds (OC) emissions shall not exceed 0.36 lb/hr and 1.58 tpy of OC;</p> <p>hydrogen chloride (HCl) emissions shall not exceed 0.09 lb/mmBtu, 16.2 lb/hr and 19.87 tpy of HCl;</p> <p>sulfuric acid mist emissions shall not exceed 0.053 lb/MMBtu of actual heat input, and 9.56 lbs/hr; and,</p> <p>See b)(2)d.</p> <p>Visible PE shall not exceed 20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity).</p> <p>See c)(1).</p> <p>maximum hourly TDF and wood usages shall be limited by the equation found in section c)(2) and a limitation of no more than 3,220 lbs of TDF burned per hour.</p>
b.	OAC rule 3745-17-07(A)	See b)(2)a.
c.	OAC rule 3745-17-10(B)	Applicable PE rule when burning natural gas, see, b)(2)a.
d.	OAC rule 3745-18-06(D)	Applicable SO ₂ rule when burning natural gas, see b)(2)a.
e.	OAC rule 3745-21-07(B) OAC rule 3745-21-08(B)	See b)(2)f
f.	40 CFR 60, Subpart Db	See b)(2)a and c
g.	OAC rule 3745-31-(13) thru (20)	<p>The tons of emissions per rolling 12-month period [for emissions units B003 and B004, combined] shall not exceed the following:</p> <p>SO₂ - 135.5 Sulfuric Acid Mist - 23.4.</p> <p>See b)(2)e below.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	OAC rule 3745-31-05(D)	<p>This emissions unit is limited to burning natural gas, TDF, and/or wood (as described in c(2)), or a combination of these fuels. The amount of these fuels for emissions units B003 and B004 is limited by the equations found in c)(2) and limitations of no more than 8,655 tons of TDF and no more than 106,818 tons of wood burned per rolling 12-month period.</p> <p>36.22 tons of particulate matter* (PM) per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>130.24 tons of NO_x per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>56.29 tons of CO per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>See b)(2)b below.</p> <p>The annual capacity factor for natural gas shall be limited to 10 percent (0.10) or less for this emissions unit per rolling 12-month period.</p> <p>*All particulate matter less than 10 microns (PM₁₀) is considered to be PM.</p>
i.	40 CFR Part 64	See sections d)(12), d)(13), e)(15), e)(16), and g)(1).

(2) Additional Terms and Conditions

- a. The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- b. Based upon information submitted by the applicant in their permit application, the annual actual emissions for B003 and B004 based upon years 2001 and 2002 reporting are as follows:
 - PM - 13.76 tpy;
 - NO_x - 91.64 tpy; and



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CO - 43.10 tpy.

- c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- d. The hourly mass emission limitations (PE, NO_x, SO₂, CO, HCl, and sulfuric acid mist) are based upon maximum values and therefore the permittee does not need to keep hourly records to show compliance with those limitations.
- e. The permittee performed a Best Available Control Technology (BACT) review for SO₂ and sulfuric acid mist. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(13) through(20) above. The following determinations have been made for each pollutant:

SO₂ - Restricting the amount of TDF burned in this emissions unit; and

Sulfuric acid mist - Restricting the amount of TDF burned in this emissions unit.

- f. The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-21-07(B), respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) **Operational Restrictions**

- (2) The permittee shall not burn any oil in this emissions unit.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

- (3) Emission, Natural Gas, TDF/Wood Mix, and Wood Burned Restrictions:

In order to avoid applicability of the federal Prevention of Significant Deterioration and state OAC 3745-31-13 thru 20 rules for PM/PM-10, NO_x, and CO, the permittee shall restrict the use of fuels burned in emissions units B003 through B004, combined, by the following formula#:



a.

$$\left(\frac{X \text{ lbs of wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.10 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{5500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left(\frac{Y \text{ lbs of TDF / wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.08 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{7161 \text{ BTU}}{\text{lbs of TDF / wood}} \right) +$$

$$\left(\frac{Z \text{ CF natural gas burned}}{\text{rolling 12 - month period}} \right) \left(\frac{84 \text{ lbs of CO}}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left(\frac{112,580 \text{ lbs of CO}}{\text{rolling 12 - month period}} \right)$$

Where:

X is the pounds of pure wood burned per rolling 12 - month period

Y is the pounds of TDF / wood mix burned per rolling 12 - month period

Z is the cubic feet of natural gas burned per rolling 12 - month period

- b. If the rolling 12-month TDF usage is less than 8,655 tons, the rolling 12-month wood usage rate is the lesser of 106,818 tons or the amount determined from the following equation:

$$\text{Tons of wood allowed} = 2,463,636 - 276.5 * \text{actual tons of TDF}$$

- c. If the maximum hourly TDF usage is less than 3,220 lbs, the maximum hourly wood usage rate is determined from the following equation:

$$\text{Pounds of wood allowed} = 916,364 - 276.5 * \text{actual lbs of TDF}$$

note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above PM, NO_x, and CO lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

(4) Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))



(5) ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation and combusting any fuel other than natural gas, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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, and when combusting natural gas, the ESP need not be operated.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

(6) Natural Gas Annual Capacity Factor Limitation:

In order to comply with the NO_x lb/MMBTU limitation listed under OAC rule 3745-31-05(A)(5) in term A.I.1, the maximum annual natural gas capacity factor for this emissions unit shall not exceed 10 percent, based upon a rolling, 12-month calculation of the annual capacity factor.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall monitor and record the following information on a daily basis:

- a. the tons of wood that was fed to the boiler that day;
- b. the tons of TDF that was fed to the boiler that day;
- c. the natural gas consumption for each day (in million cubic feet); and
- d. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_w + DI_t$$

DI = Total heat input for each day, mmBtu

DI_g = Daily heat input rate from Gas



DI_w = Daily heat input rate from Wood

DI_t = Daily heat input rate from TDF

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:

DI_g = Daily heat input rate from pipeline natural gas, mmBtu/day.

Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.

GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.

10^3 = Conversion of thousand Btu to mmBtu.

When the unit is combusting wood, use the following equation to calculate heat input rate:

$$DI_w = W_w * GCV_w / 10^6$$

Where:

DI_w = Daily heat input rate from wood, mmBtu/day.

V_w = Weight of wood consumed per day, measured in lbs/day

GCV_w = Gross calorific value of wood = 5,500 Btu/lb, or as measured by ASTM D2015 during most recent stack test, Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

When the unit is combusting TDF, use the following equation to calculate heat input rate:

$$DI_t = W_t * GCV_t / 10^6$$

Where:

DI_t = Daily heat input rate from TDF, mmBtu/day.

V_t = Weight of TDF consumed per day, measured in lbs/day



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GCV_t = Gross calorific value of TDF = 13,000 Btu/lb, or as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

(2) Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

When combusting fuels other than natural gas in this emissions units, the permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

(3) ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the 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 permittee shall record the following information for each day:

- a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation and combusting a fuel other than natural gas, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
- b. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation and combusting a fuel other than natural gas.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (4) The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
 - a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and
 - b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

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(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall maintain monthly records of the following information in emission units B003 - B004:
 - a. the pounds of wood burned;
 - b. the pounds of TDF burned;
 - c. the cubic feet of natural gas burned;
 - d. the rolling, 12-month summation of TDF, natural gas and wood used;



- e. the calculations and the results of the determination that the formulas in term A.II.2 were met;
- f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the TDF burned ; and
- g. the rolling, 12-month summation of SO₂ and Sulfuric Acid Mist emission limitations.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative TDF burned for each calendar month.

The permittee shall calculate the annual capacity factor as defined in 40 CFR Part 60.41b individually for each fuel burned each calendar quarter pursuant to 40 CFR Part60.49b.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (6) The permittee shall monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in section A.IV.10.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (7) The permittee shall maintain daily records of the following information for each day:
 - a. the pounds of TDF burned; and
 - b. the pounds of wood burned in conjunction with TDF.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (8) The permit-to-install (PTI) application for this/these emissions unit(s) B003 – B004 was evaluated based on the actual materials and the design parameters of the emissions unit's(s) exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been



documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Pollutant: Manganese

TLV (mg/m3): 0.2

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.022

MAGLC (ug/m3): 0.714

Pollutant: Acrolein

TLV (mg/m3): 0.23

Maximum Hourly Emission Rate (lbs/hr): 0.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.167

MAGLC (ug/m3): 4.02



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Pollutant: Benzene

TLV (mg/m³): 32

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 37.95

Pollutant: Biphenyl

TLV (mg/m³): 1.3

Maximum Hourly Emission Rate (lbs/hr): 3.31

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 29.97

Pollutant: 1,3-Butadiene

TLV (mg/m³): 4.4

Maximum Hourly Emission Rate (lbs/hr): 1.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 105.13

Pollutant: Ethylbenzene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 10,316.81

Pollutant: Formaldehyde

TLV (mg/m³): 0.27

Maximum Hourly Emission Rate (lbs/hr): 0.97



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Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.184

MAGLC (ug/m3): 6.45

Pollutant: Naphthalene

TLV (mg/m3): 52

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070

MAGLC (ug/m3): 1,245.77

Pollutant: Phenol

TLV (mg/m3): 19

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.075

MAGLC (ug/m3): 457.29

Pollutant: Styrene

TLV (mg/m3): 213

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070

MAGLC (ug/m3): 2,024.49

Pollutant: Toluene

TLV (mg/m3): 188

Maximum Hourly Emission Rate (lbs/hr): 0.20

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.038

MAGLC (ug/m3): 4,476.68



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Pollutant: Sulfuric Acid Mist

TLV (mg/m³): 1

Maximum Hourly Emission Rate (lbs/hr): 19.11

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3.607

MAGLC (ug/m³): 23.81

Pollutant: Hydrogen Chloride

TLV (mg/m³): 5

Maximum Hourly Emission Rate (lbs/hr): 0.86

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.161

MAGLC (ug/m³): 130.60

Pollutant: Lead

TLV (mg/m³): 0.05

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.01

MAGLC (ug/m³): 1.19

The permittee, has demonstrated that emissions, from emissions unit(s) B003 – B004, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum



ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (12) The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting fuels other than natural gas in this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 1-minute, 6-minute block, and hourly average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

(Authority for term: OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a)(1), 40 CFR Part 64.7(b), and 40 CFR Part 64.9(b))

- (13) The CAM plan for this emissions unit has been developed for PE and visible PE. The CAM performance indicator for visible PE is the opacity from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system. The visible PE indicator range is 3 consecutive minutes with an average opacity value less than 20%. When the average opacity value is outside the indicator range, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP operating parameters) will be required. The CAM performance indicators for PE are the visible PE from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system and a predictive PE model based upon the results of site specific particulate emission testing and emissions unit and ESP parametric data collected during the emission testing. The opacity indicator range is an hourly average opacity value less than 20%. When the hourly average opacity value is outside the indicator range, there is no reporting or corrective action requirement relative to the PE limitation, but the operator must enter the current ESP and emissions unit operating parameters into the site specific model to predict the particulate emissions. If the hourly average opacity does not return to a level within the indicated range, the model is run every 3 hours to evaluate emissions. If the results of the predictive model indicate that the PE limitation may have been exceeded, the permittee shall take corrective action to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in section e)(3) below. The predictive model shall be run in accordance with the approved CAM Plan or any approved revision of the Plan. Model calibration will be re-verified through periodic emission testing or if the ESP or emissions unit operating conditions change. In addition to periodic monitoring of their ESP operating parameters, the permittee also has an annual inspection and maintenance program for their ESP. Based on the results of the monitoring and inspection program,



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repairs to the ESP are made per the manufacturer's recommendation. If the current CAM indicators and/or the ESP maintenance program is considered inadequate, the permittee will develop a Quality Improvement Plan.

(Authority for term: OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a), 40 CFR Part 64.6(c), 40 CFR Part 64.7(d), and 40 CFR Part 64.8)

e) Reporting Requirements

- (1) The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line and combusting a fuel other than natural gas (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall submit deviation (excursion) reports which identify:
 - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i);
 - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit; and
 - c. all periods in which the TDF usage exceeded 11% TDF by weight and the actual composition for that time period;



(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (3) The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (4) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative amounts of TDF and/or wood burned and PM, NO_x, and CO emission levels (compliance with PM, NO_x, and CO emissions levels are demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B004.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations for SO₂ and sulfuric acid mist.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (6) The permittee shall submit deviation (excursion) reports that identify all exceedances of the natural gas annual capacity factor limitation and, for the first 12 calendar months of operation following the issuance of the permit, all exceedances of the monthly allowable natural gas capacity factor.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (7) The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (8) The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (9) The permittee shall submit an initial notification of startup. This notification shall include:
- a. the date of initial startup;
 - b. the design heat input capacity of the facility and an identification of the fuels to be combusted in the affected facility; and
 - c. the annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.



(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (10) The permittee shall submit for approval within 360 days of startup a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxide emission limitations. The plan shall:
- a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxide emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);
 - b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and
 - c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (11) The permittee shall submit excess emission reports for any calculated exceedance of the NO_x emission limitation. All reports shall be submitted by the 30th day following the end of the 6 month reporting period.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (12) Pursuant to the NSPS, section 60.7, the source owner/operator is hereby advised of the requirement to submit a written report to the administrator (not more than 60 days or as soon as practicable before the change is commenced) the following:
- a. information describing the precise nature of the change;
 - b. present and proposed emissions control systems;
 - c. productive capacity of the facility before and after the change; and
 - d. expected completion date of the change.

The administrator may request additional relevant information subsequent to this notice.

Report required in term e)(12) is to be sent to:



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Ohio Environmental Protection Agency

DAPC - Permit Management Unit

P. O. Box 163669

Columbus, Ohio 43216-3669

and

Akron Air Pollution Control

146 South High Street

Room 904

Akron, Ohio 44308

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (13) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (14) The permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Akron RAQMD documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document any continuous opacity monitoring system downtime while the emissions unit was on line and combusting a fuel other than natural gas (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.



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

(Authority for term: OAC rule 3745-77-07(A)(3)(c) and 40 CFR Part 64.9(a))

- (15) If the results of the predictive model indicate that the PE limitation may have been exceeded, the permittee shall submit the results of the predictive modeling and document any corrective action taken to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with General Term and Condition A.1.c.iii of this permit.

(Authority for term: 40 CFR Part 64.7(d) and 40 CFR Part 64.9(a))

f) Testing Requirements

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

- a. The emission testing shall be conducted within 3 months after start-up
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate, nitrogen oxide, SO₂, carbon monoxide, organic compounds, hydrogen chloride and sulfuric acid mist.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PE, Methods 1-5 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);

for NO_x, Methods 1-4 and 7E of 40 CFR Part 60, Appendix A (while firing only wood);

for SO₂, Methods 1-4 and 6C of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);

for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A (while firing only wood);

for OC, Methods 1-4 and 25A of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);

for HCl, Methods 1-4 and 26 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix); and

for H₂SO₄ mist, Methods 1-4 and 8 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix).

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



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- 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 appropriate Ohio EPA District Office or local air agency.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (2) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (3) Personnel from the appropriate Ohio EPA District Office or local air agency 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.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (4) 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall demonstrate the maximum heat input capacity of the steam generating unit by operating it as maximum capacity for 24 hours. The permittee shall determine the maximum heat input capacity using the production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. Subsequent demonstrations may be required by the Administrator at any other shall be used to determine the capacity utilization rate for the emissions unit. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (6) Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.02 lb of PE/MMBTU of actual heat input, when combusting only natural gas

Applicable Compliance Method:



The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs of PE per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb of PE per mmBtu.

b. Emission Limitation:

0.08 lb of PE/MMBTU of actual heat input

14.4 lbs/hr of PE

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 5, 40 CFR Part 60, Appendix A.

c. Emission Limitation:

0.24 lb of NO_x /MMBTU of actual heat input

43.2 lbs/hr of NO_x

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 7E, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

0.28 lb of SO_2 / MMBTU of actual heat input

50.4 lbs/hr of SO_2

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 6C, 40 CFR Part 60, Appendix A.

e. Emission Limitation:

18.0 lbs/hr of CO

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 10, 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.36 lbs/hr of OC

1.58 tpy of OC



Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 25A, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

0.09 lb HCl/mmBtu

16.2 lbs/hr of HCl

19.87 tpy of HCl

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

To demonstrate compliance with the annual emission limitation, multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.

h. Emission Limitation:

0.053 lb of sulfuric acid mist/MMBTU

9.56 lbs/hr of sulfuric acid mist

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 8, 40 CFR Part 60, Appendix A.

i. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

135.5 tons per rolling 12-month period of SO₂ from B003 and B004 combined

Applicable Compliance Method:

Annual SO₂ emissions = SO₂ emissions from TDF + SO₂ emissions from wood



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SO₂ emissions from TDF = tons of TDF burned * 26 mmBtu/ton * 1.17 lb/mmBtu
* 1 ton/2,000 lbs

SO₂ emissions from wood = tons of wood burned * 11 mmBtu/ton * 0.01
lb/mmBtu * 1 tons/2,000 lbs

The mmBtu heat content and emission rates in lb/mmBtu in the above equations should be adjusted if data obtained during emission testing warrants a change.

k. Emission Limitation:

23.4 tons per rolling 12-month period of sulfuric acid mist from B003 and B004 combined

Applicable Compliance Method:

Multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.

l. Emission Limitation:

36.22 tpy of PM for B003 and B004 combined

130.24 tpy of NO_x for B003 and B004 combined

56.29 tpy of CO for B003 and B004 combined

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section c)(5) of these T&Cs.

m. Emission Limitation:

annual capacity factor for natural gas shall be limited to 10 percent (0.10)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section c)(6) of these T&Cs.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

g) Miscellaneous Requirements

(1) The permittee shall maintain a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxides emission limitations. The plan shall:

a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include,



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but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

- b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and
- c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.

(Authority for term: OAC rule 3745-31-05(A)(3))

- (2) The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: OAC rule 3745-15-04(C), OAC rule 3745-77-07(A)(3)(b), and 40 CFR Part 64.3(a)(1))



4. B004, Unit #2

Operations, Property and/or Equipment Description:

B004 - Unit #2, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, and tire derived fuel (TDF) fired boiler for steam generation, controlled with an electrostatic precipitator

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) d)(9) – d)(12), e)(14).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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) (PTI 16-02294)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-09, 3745-17-1(B), 3745-18-06(D), 3745-31-05(D), 3745-31-(13) thru (20), and 40 CFR 60 Subpart Db.</p> <p>When burning natural gas exclusively, particulate emissions (PE) shall not exceed 0.02 lb/MMBtu of actual heat input.</p> <p>When burning a combination of the following fuels: natural gas, TDF and/or wood, PE shall not exceed 0.08 lb/MMBtu of actual heat input, and 14.4 lbs/hr of PE;</p> <p>nitrogen oxides (NO_x) emissions shall not exceed 0.24 lb/MMBtu of actual heat input, and 43.2 lbs/hr;</p> <p>sulfur dioxide (SO₂) emissions shall not exceed 0.28 lb/MMBtu of actual heat input, and 50.4 lbs/hr;</p> <p>carbon monoxide (CO) emissions shall not exceed 18.0 lbs/hr;</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>organic compounds (OC) emissions shall not exceed 0.36 lb/hr and 1.58 tpy of OC;</p> <p>hydrogen chloride (HCl) emissions shall not exceed 0.09 lb/mmBtu, 16.2 lb/hr and 19.87 tpy of HCl;</p> <p>sulfuric acid mist emissions shall not exceed 0.053 lb/MMBtu of actual heat input, and 9.56 lbs/hr; and,</p> <p>See b)(2)d.</p> <p>Visible PE shall not exceed 20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity).</p> <p>See c)(1).</p> <p>maximum hourly TDF and wood usages shall be limited by the equation found in section c)(2) and a limitation of no more than 3,220 lbs of TDF burned per hour.</p>
b.	OAC rule 3745-17-07(A)	See b)(2)a.
c.	OAC rule 3745-17-10(B)	Applicable PE rule when burning natural gas, see, b)(2)a.
d.	OAC rule 3745-18-06(D)	Applicable SO ₂ rule when burning natural gas, see b)(2)a.
e.	OAC rule 3745-21-07(B) OAC rule 3745-21-08(B)	See b)(2)f
f.	40 CFR 60, Subpart Db	See b)(2)a and c
g.	OAC rule 3745-31-(13) thru (20)	<p>The tons of emissions per rolling 12-month period [for emissions units B003 and B004, combined] shall not exceed the following:</p> <p>SO₂ - 135.5 Sulfuric Acid Mist - 23.4.</p> <p>See b)(2)e below.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	OAC rule 3745-31-05(D)	<p>This emissions unit is limited to burning natural gas, TDF, and/or wood (as described in c(2)), or a combination of these fuels. The amount of these fuels for emissions units B003 and B004 is limited by the equations found in c)(2) and limitations of no more than 8,655 tons of TDF and no more than 106,818 tons of wood burned per rolling 12-month period.</p> <p>36.22 tons of particulate matter* (PM) per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>130.24 tons of NO_x per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>56.29 tons of CO per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>See b)(2)b below.</p> <p>The annual capacity factor for natural gas shall be limited to 10 percent (0.10) or less for this emissions unit per rolling 12-month period.</p> <p>*All particulate matter less than 10 microns (PM₁₀) is considered to be PM.</p>
i.	40 CFR Part 64	See sections d)(12), d)(13), e)(15), e)(16), and g)(1).

(2) Additional Terms and Conditions

- a. The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- b. Based upon information submitted by the applicant in their permit application, the annual actual emissions for B003 and B004 based upon years 2001 and 2002 reporting are as follows:
 - PM - 13.76 tpy;
 - NO_x - 91.64 tpy; and



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CO - 43.10 tpy.

- c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- d. The hourly mass emission limitations (PE, NO_x, SO₂, CO, HCl, and sulfuric acid mist) are based upon maximum values and therefore the permittee does not need to keep hourly records to show compliance with those limitations.
- e. The permittee performed a Best Available Control Technology (BACT) review for SO₂ and sulfuric acid mist. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(13) through(20) above. The following determinations have been made for each pollutant:

SO₂ - Restricting the amount of TDF burned in this emissions unit; and

Sulfuric acid mist - Restricting the amount of TDF burned in this emissions unit.

- f. The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-21-07(B), respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

- (1) The permittee shall not burn any oil in this emissions unit.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

- (2) Emission, Natural Gas, TDF/Wood Mix, and Wood Burned Restrictions:

In order to avoid applicability of the federal Prevention of Significant Deterioration and state OAC 3745-31-13 thru 20 rules for PM/PM-10, NO_x, and CO, the permittee shall restrict the use of fuels burned in emissions units B003 through B004, combined, by the following formula#:



a.

$$\left(\frac{X \text{ lbs of wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.10 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{5500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left(\frac{Y \text{ lbs of TDF / wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.08 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{7161 \text{ BTU}}{\text{lbs of TDF / wood}} \right) +$$

$$\left(\frac{Z \text{ CF natural gas burned}}{\text{rolling 12 - month period}} \right) \left(\frac{84 \text{ lbs of CO}}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left(\frac{112,580 \text{ lbs of CO}}{\text{rolling 12 - month period}} \right)$$

Where:

X is the pounds of pure wood burned per rolling 12 - month period

Y is the pounds of TDF / wood mix burned per rolling 12 - month period

Z is the cubic feet of natural gas burned per rolling 12 - month period

b. If the rolling 12-month TDF usage is less than 8,655 tons, the rolling 12-month wood usage rate is the lesser of 106,818 tons or the amount determined from the following equation:

$$\text{Tons of wood allowed} = 2,463,636 - 276.5 * \text{actual tons of TDF}$$

c. If the maximum hourly TDF usage is less than 3,220 lbs, the maximum hourly wood usage rate is determined from the following equation:

$$\text{Pounds of wood allowed} = 916,364 - 276.5 * \text{actual lbs of TDF}$$

note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above PM, NO_x, and CO lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

(3) Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))



(4) ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation and combusting any fuel other than natural gas, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

(5) Natural Gas Annual Capacity Factor Limitation:

In order to comply with the NO_x lb/MMBTU limitation listed under OAC rule 3745-31-05(A)(5) in term A.I.1, the maximum annual natural gas capacity factor for this emissions unit shall not exceed 10 percent, based upon a rolling, 12-month calculation of the annual capacity factor.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

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

(1) The permittee shall monitor and record the following information on a daily basis:

- a. the tons of wood that was fed to the boiler that day;
- b. the tons of TDF that was fed to the boiler that day;
- c. the natural gas consumption for each day (in million cubic feet); and
- d. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_w + DI_t$$

DI = Total heat input for each day, mmBtu

DI_g = Daily heat input rate from Gas

DI_w = Daily heat input rate from Wood



DI_t = Daily heat input rate from TDF

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:

DI_g = Daily heat input rate from pipeline natural gas, mmBtu/day.

Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.

GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.

10^3 = Conversion of thousand Btu to mmBtu.

When the unit is combusting wood, use the following equation to calculate heat input rate:

$$DI_w = W_w * GCV_w / 10^6$$

Where:

DI_w = Daily heat input rate from wood, mmBtu/day.

V_w = Weight of wood consumed per day, measured in lbs/day

GCV_w = Gross calorific value of wood = 5,500 Btu/lb, or as measured by ASTM D2015 during most recent stack test, Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

When the unit is combusting TDF, use the following equation to calculate heat input rate:

$$DI_t = W_t * GCV_t / 10^6$$

Where:

DI_t = Daily heat input rate from TDF, mmBtu/day.

V_t = Weight of TDF consumed per day, measured in lbs/day

GCV_t = Gross calorific value of TDF = 13,000 Btu/lb, or as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.



10^6 = Conversion of Btu to mmBtu.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

(2) Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting fuels other than natural gas. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

(3) ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the 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 permittee shall record the following information for each day:

- a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation and combusting a fuel other than natural gas, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
- b. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (4) The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
 - a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and
 - b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

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(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall maintain monthly records of the following information in emission units B003 - B004:
 - a. the pounds of wood burned;
 - b. the pounds of TDF burned;
 - c. the cubic feet of natural gas burned;
 - d. the rolling, 12-month summation of TDF, natural gas and wood used;
 - e. the calculations and the results of the determination that the formulas in term A.II.2 were met;



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- f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the TDF burned ; and
- g. the rolling, 12-month summation of SO₂ and Sulfuric Acid Mist emission limitations.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative TDF burned for each calendar month.

The permittee shall calculate the annual capacity factor as defined in 40 CFR Part 60.41b individually for each fuel burned each calendar quarter pursuant to 40 CFR Part 60.49b.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (6) The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (7) The permittee shall monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in section A.IV.10.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (8) The permittee shall maintain daily records of the following information for each day:
 - a. the pounds of TDF burned; and
 - b. the pounds of wood burned in conjunction with TDF.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (9) The permit-to-install (PTI) application for this/these emissions unit(s) B003 – B004 was evaluated based on the actual materials and the design parameters of the emissions unit's(s) exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):



- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices";
or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Pollutant: Manganese

TLV (mg/m³): 0.2

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.022

MAGLC (ug/m³): 0.714

Pollutant: Acrolein

TLV (mg/m³): 0.23

Maximum Hourly Emission Rate (lbs/hr): 0.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.167

MAGLC (ug/m³): 4.02



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Pollutant: Benzene

TLV (mg/m³): 32

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 37.95

Pollutant: Biphenyl

TLV (mg/m³): 1.3

Maximum Hourly Emission Rate (lbs/hr): 3.31

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 29.97

Pollutant: 1,3-Butadiene

TLV (mg/m³): 4.4

Maximum Hourly Emission Rate (lbs/hr): 1.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 105.13

Pollutant: Ethylbenzene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 10,316.81

Pollutant: Formaldehyde

TLV (mg/m³): 0.27

Maximum Hourly Emission Rate (lbs/hr): 0.97



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Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.184

MAGLC (ug/m3): 6.45

Pollutant: Naphthalene

TLV (mg/m3): 52

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070

MAGLC (ug/m3): 1,245.77

Pollutant: Phenol

TLV (mg/m3): 19

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.075

MAGLC (ug/m3): 457.29

Pollutant: Styrene

TLV (mg/m3): 213

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.070

MAGLC (ug/m3): 2,024.49

Pollutant: Toluene

TLV (mg/m3): 188

Maximum Hourly Emission Rate (lbs/hr): 0.20

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.038

MAGLC (ug/m3): 4,476.68



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Pollutant: Sulfuric Acid Mist

TLV (mg/m³): 1

Maximum Hourly Emission Rate (lbs/hr): 19.11

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3.607

MAGLC (ug/m³): 23.81

Pollutant: Hydrogen Chloride

TLV (mg/m³): 5

Maximum Hourly Emission Rate (lbs/hr): 0.86

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.161

MAGLC (ug/m³): 130.60

Pollutant: Lead

TLV (mg/m³): 0.05

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.01

MAGLC (ug/m³): 1.19

The permittee, has demonstrated that emissions, from emissions unit(s) B003 – B004, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (10) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (11) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (12) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum



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ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (13) The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting fuels other than natural gas. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 1-minute, 6-minute block, and hourly average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

(Authority for term: OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a)(1), 40 CFR Part 64.7(b), and 40 CFR Part 64.9(b))

- (14) The CAM plan for this emissions unit has been developed for PE and visible PE. The CAM performance indicator for visible PE is the opacity from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system. The visible PE indicator range is 3 consecutive minutes with an average opacity value less than 20%. When the average opacity value is outside the indicator range, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP operating parameters) will be required. The CAM performance indicators for PE are the visible PE from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system and a predictive PE model based upon the results of site specific particulate emission testing and emissions unit and ESP parametric data collected during the emission testing. The opacity indicator range is an hourly average opacity value less than 20%. When the hourly average opacity value is outside the indicator range, there is no reporting or corrective action requirement relative to the PE limitation, but the operator must enter the current ESP and emissions unit operating parameters into the site specific model to predict the particulate emissions. If the hourly average opacity does not return to a level within the indicated range, the model is run every 3 hours to evaluate emissions. If the results of the predictive model indicate that the PE limitation may have been exceeded, the permittee shall take corrective action to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in section e)(3) below. The predictive model shall be run in accordance with the approved CAM Plan or any approved revision of the Plan. Model calibration will be re-verified through periodic emission testing or if the ESP or emissions unit operating conditions change. In addition to periodic monitoring of their ESP operating parameters, the permittee also has an annual inspection and maintenance program for their ESP. Based on the results of the monitoring and inspection program,



repairs to the ESP are made per the manufacturer's recommendation. If the current CAM indicators and/or the ESP maintenance program is considered inadequate, the permittee will develop a Quality Improvement Plan.

(Authority for term: OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a), 40 CFR Part 64.6(c), 40 CFR Part 64.7(d), and 40 CFR Part 64.8)

e) Reporting Requirements

- (1) The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line and combusting a fuel other than natural gas (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall submit deviation (excursion) reports which identify:
 - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i);
 - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit; and
 - c. all periods in which the TDF usage exceeded 11% TDF by weight and the actual composition for that time period;



(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (3) The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (4) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative amounts of TDF and/or wood burned and PM, NO_x, and CO emission levels (compliance with PM, NO_x, and CO emissions levels are demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B004.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations for SO₂ and sulfuric acid mist.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (6) The permittee shall submit deviation (excursion) reports that identify all exceedances of the natural gas annual capacity factor limitation and, for the first 12 calendar months of operation following the issuance of the permit, all exceedances of the monthly allowable natural gas capacity factor.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (7) The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (8) The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (9) The permittee shall submit an initial notification of startup. This notification shall include:
- a. the date of initial startup;
 - b. the design heat input capacity of the facility and an identification of the fuels to be combusted in the affected facility; and
 - c. the annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.



(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (10) The permittee shall submit for approval within 360 days of startup a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxide emission limitations. The plan shall:
- a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxide emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);
 - b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and
 - c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (11) The permittee shall submit excess emission reports for any calculated exceedance of the NO_x emission limitation. All reports shall be submitted by the 30th day following the end of the 6 month reporting period.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (12) Pursuant to the NSPS, section 60.7, the source owner/operator is hereby advised of the requirement to submit a written report to the administrator (not more than 60 days or as soon as practicable before the change is commenced) the following:
- a. information describing the precise nature of the change;
 - b. present and proposed emissions control systems;
 - c. productive capacity of the facility before and after the change; and
 - d. expected completion date of the change.

The administrator may request additional relevant information subsequent to this notice.

Report required in term e)(12) is to be sent to:

Ohio Environmental Protection Agency

DAPC - Permit Management Unit



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P. O. Box 163669
Columbus, Ohio 43216-3669
and
Akron Air Pollution Control
146 South High Street
Room 904
Akron, Ohio 44308

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (13) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(Authority for term: OAC rule 3745-77-07(A)(3)(a) and OAC rule 3745-31-05(A)(3))

- (14) The permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Akron RAQMD documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document any continuous opacity monitoring system downtime while the emissions unit was on line and combusting a fuel other than natural gas (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.



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

(Authority for term: OAC rule 3745-77-07(A)(3)(c) and 40 CFR Part 64.9(a))

- (15) If the results of the predictive model indicate that the PE limitation may have been exceeded, the permittee shall submit the results of the predictive modeling and document any corrective action taken to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with General Term and Condition A.1.c.iii of this permit.

(Authority for term: 40 CFR Part 64.7(d) and 40 CFR Part 64.9(a))

f) Testing Requirements

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

- a. The emission testing shall be conducted within 3 months after start-up
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate, nitrogen oxide, SO₂, carbon monoxide, organic compounds, hydrogen chloride and sulfuric acid mist.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PE, Methods 1-5 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);

for NO_x, Methods 1-4 and 7E of 40 CFR Part 60, Appendix A (while firing only wood);

for SO₂, Methods 1-4 and 6C of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);

for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A (while firing only wood);

for OC, Methods 1-4 and 25A of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);

for HCl, Methods 1-4 and 26 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix); and

for H₂SO₄ mist, Methods 1-4 and 8 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix).

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



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- 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 appropriate Ohio EPA District Office or local air agency.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (2) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (3) Personnel from the appropriate Ohio EPA District Office or local air agency 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.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (4) 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall demonstrate the maximum heat input capacity of the steam generating unit by operating it as maximum capacity for 24 hours. The permittee shall determine the maximum heat input capacity using the production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. Subsequent demonstrations may be required by the Administrator at any other shall be used to determine the capacity utilization rate for the emissions unit. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

- (6) Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.02 lb of PE/MMBTU of actual heat input, when combusting only natural gas

Applicable Compliance Method:



The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs of PE per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb of PE per mmBtu.

b. Emission Limitation:

0.08 lb of PE/MMBTU of actual heat input

14.4 lbs/hr of PE

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 5, 40 CFR Part 60, Appendix A.

c. Emission Limitation:

0.24 lb of NO_x /MMBTU of actual heat input

43.2 lbs/hr of NO_x

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 7E, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

0.28 lb of SO_2 / MMBTU of actual heat input

50.4 lbs/hr of SO_2

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 6C, 40 CFR Part 60, Appendix A.

e. Emission Limitation:

18.0 lbs/hr of CO

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 10, 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.36 lbs/hr of OC

1.58 tpy of OC



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Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 25A, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

0.09 lb HCl/mmBtu

16.2 lbs/hr of HCl

19.87 tpy of HCl

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

To demonstrate compliance with the annual emission limitation, multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.

h. Emission Limitation:

0.053 lb of sulfuric acid mist/MMBTU

9.56 lbs/hr of sulfuric acid mist

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 8, 40 CFR Part 60, Appendix A.

i. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

135.5 tons per rolling 12-month period of SO₂ from B003 and B004 combined

Applicable Compliance Method:

Annual SO₂ emissions = SO₂ emissions from TDF + SO₂ emissions from wood



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SO₂ emissions from TDF = tons of TDF burned * 26 mmBtu/ton * 1.17 lb/mmBtu
* 1 ton/2,000 lbs

SO₂ emissions from wood = tons of wood burned * 11 mmBtu/ton * 0.01
lb/mmBtu * 1 tons/2,000 lbs

The mmBtu heat content and emission rates in lb/mmBtu in the above equations should be adjusted if data obtained during emission testing warrants a change.

k. Emission Limitation:

23.4 tons per rolling 12-month period of sulfuric acid mist from B003 and B004 combined

Applicable Compliance Method:

Multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.

l. Emission Limitation:

36.22 tpy of PM for B003 and B004 combined

130.24 tpy of NO_x for B003 and B004 combined

56.29 tpy of CO for B003 and B004 combined

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section c)(5) of these T&Cs.

m. Emission Limitation:

annual capacity factor for natural gas shall be limited to 10 percent (0.10)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section c)(6) of these T&Cs.

(Authority for term: OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3))

g) Miscellaneous Requirements

(1) The permittee shall maintain a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxides emission limitations. The plan shall:

a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include,



but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

- b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and
- c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.

(Authority for term: OAC rule 3745-31-05(A)(3))

- (2) The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: OAC rule 3745-15-04(C), OAC rule 3745-77-07(A)(3)(b), and 40 CFR Part 64.3(a)(1))



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Title V Permit
Permit Number: P0102737
Facility ID: 1677010757
Effective Date: 5/11/2009

5. B005, Boiler #3

Operations, Property and/or Equipment Description:

180 MMBtu/hr Gas/Oil/Used Oil Fired Boiler

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) Air toxic, e)(7)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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) (PTI 16-02187)	<p>When burning natural gas or No. 2 fuel oil, particulate emissions (PE) shall not exceed 0.020 pound per million Btu of actual heat input.</p> <p>When burning a combination of natural gas, No. 2 fuel oil, and/or on-specification used oil, PE shall not exceed 0.11 pound per million Btu of actual heat input, 19.8 pounds per hour, and 86.72 tons per year.</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 70.3 pounds per hour and 307.9 tons per year.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 101 pounds per hour.</p> <p>Carbon monoxide (CO) emissions shall not exceed 27.0 pounds per hour and 118.3 tons per year.</p> <p>Organic compound (OC) emissions shall not exceed 42 pounds per hour and 183.96 tons per year.</p> <p>Lead (Pb) emissions shall not exceed 0.0843 pounds per hour and 0.4 ton per year.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Visible PE shall not exceed 20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).</p> <p>See c)(2) and c)(3).</p>
b.	OAC rule 3745-31-05(C)	<p>The permittee shall only burn natural gas, No. 2 fuel oil, on-specification used oil or a combination of these fuels in this emissions unit.</p> <p>The permittee shall burn no more than 1,000,000 gallons of on-specification used oil in this emissions unit per rolling, 12-month period.</p> <p>SO₂ emissions shall not exceed 48.5 tons per rolling, 12-month period.</p>
c.	OAC rule 3745-17-07(A)	The visible PE limitation specified in this rule is equivalent to the visible PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-10(B)	When burning natural gas and/or No. 2 fuel oil, the PE limitation specified in this rule is equivalent to the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-10(C)	When burning a combination of natural gas, No. 2 fuel oil, on-specification used oil, the PE limitation specified in this rule is less stringent than the PE limitations established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-06(D)	<p>When burning No. 2 fuel oil, the sulfur dioxide emission limitation specified in this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>When burning natural gas, pursuant to OAC rule 3745-18-06(A), this emissions unit is exempt from the emission limitation specified in this rule.</p>
g.	OAC rule 3745-21-07(B)	See b)(2)a.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-21-08(B)	
h.	40 CFR Part 64	See d)(6), d)(8), e)(3).

(2) Additional Terms and Conditions

- a. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 16-02187.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-07(B) and 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 16-02187.

c) Operational Restrictions

- (1) All used oil burned in this emissions unit shall be "on-specification used oil" in accordance with the definitions specified in 40 CFR Part 279 and OAC rule 3745-279-11. On-specification used oil shall not be burned during emissions unit start-ups or shutdowns. On-specification used oil shall not be burned until the emissions unit reaches normal operating temperatures.

All on-specification used oil burned in this emissions unit shall meet the following specifications:

Contaminants/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100 degrees Fahrenheit, minimum
heat content	100,000 Btu/gallon, minimum
sulfur	0.5%, by weight, maximum



Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under OAC Chapter 3745-279. Therefore, the permittee may receive and burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm, maximum) only if the permittee or supplier has demonstrated to the Ohio EPA's Division of Solid and Hazardous Waste Management that the used oil does not contain any hazardous waste.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), 40 CFR Part 279 and OAC rule 3745-279-11)

- (2) In order to avoid applicability of the Prevention of Significant Deterioration rules, the permittee shall restrict the use of fuels burned in this emissions unit in accordance with the following formula:

$$\begin{aligned} & \left(\frac{W \text{ gal of No. 2 fuel oil burned}}{\text{rolling, 12 - month period}} \right) \left(\frac{157(S1) \text{ lbs. of SO}_2}{1,000 \text{ gal. of No. 2 fuel oil}} \right) \\ & + \left(\frac{X \text{ gal. of used oil burned}}{\text{rolling 12 - month period}} \right) \left(\frac{157(S2) \text{ lbs. of SO}_2}{1,000 \text{ gal of used oil}} \right) \\ & + \left(\frac{Z \text{ cu. ft natural gas burned}}{\text{rolling, 12 - month period}} \right) \left(\frac{0.6 \text{ lb. of SO}_2}{10^6 \text{ cu. ft of natural gas}} \right) \\ & \leq \left(\frac{97,000 \text{ lbs. of SO}_2}{\text{rolling, 12 - month period}} \right) \end{aligned}$$

Where:

W is the number of gallons of No. 2 fuel oil burned per rolling, 12 -month period

X is the number of gallons of on - specification used oil burned per rolling, 12 -month period

Z is the cubic feet of natural gas burned per rolling, 12 -month period

S1 is the rolling, 12 -month weight percent sulfur in the No. 2 fuel oil

S2 is the rolling, 12 -month weight percent sulfur in the on - specification used oil

The Btu per pound of wood emission factor is based upon wood with a moisture content equal to or greater than 20%.

Should more accurate SO₂ emission factors (in pound per million Btu, pounds per million cubic feet, pounds per thousand gallons,) be developed through emission testing or fuel analyses, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.

[OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3)]

- (3) The sulfur content of any oil fired in this emissions unit shall not exceed 0.50 weight percent.



[OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3)]

- (4) The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation and combusting any fuel other than natural gas, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

[OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall monitor and record the following on an hourly basis during any operation of the 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).

[OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3)(a), and OAC rule 3745-77-07(A)(3)(b)]

- (2) The permittee shall record the following information for each day:
- a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and



- b. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.

[OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3)(a), and OAC rule 3745-77-07(A)(3)(b)]

- (3) The permittee shall maintain monthly records of the following information for this emissions unit:

- a. the quantity of No. 2 fuel oil burned, in gallons;
- b. the quantity of on-specification used oil burned, in gallons;
- c. the quantity of natural gas burned, in cubic feet;
- d. the rolling, 12-month summation of each fuel used;
- e. the SO₂ emissions, in pounds and tons;
- f. the rolling, 12-month summation of the SO₂ emissions, in tons;
- g. the total operating hours for this emissions unit; and
- h. the average SO₂ emission rate, in pounds per hour (i.e., (f)/(h)).

[OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3)(a), and OAC rule 3745-77-07(A)(3)(b)]

- (4) The permittee shall receive a chemical analysis with each shipment of on-specification used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- a. date of shipment or delivery;
- b. quantity of used oil received;
- c. the Btu value of the used oil;
- d. the flash point of the used oil;
- e. the arsenic content;
- f. the cadmium content;
- g. the chromium content;
- h. the lead content;
- i. the PCB content;
- j. the total halogen content;



- k. the mercury content; and
- l. the sulfur content.

The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by the facility, of any used oil stored at this facility, or of any used oil sampled at the emissions unit.

The permittee shall conduct or have performed an analysis of a representative sample of used oil from any used oil storage tank located at the facility on an annual basis. The analysis shall be performed to determine conformance with the contaminant specifications identified in c)(1).

[OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 279 and OAC rule 3745-279-11]

- (5) For each shipment of No. 2 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO₂ emission rate (in lbs/MMBtu). (The SO₂ emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of No. 2 fuel oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Akron RAQMD.

[OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3)(a), and OAC rule 3745-77-07(A)(3)(b)]

- (6) The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the PE from this emissions unit when combusting fuels other than natural gas. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 1-minute, 6-minute block, and hourly average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.



[OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a)(1), 40 CFR Part 64.7(b), and 40 CFR Part 64.9(b)]

- (7) The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
- a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves 250 degrees Fahrenheit; and
 - b. during all periods of shutdown until the inlet temperature to 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.

[OAC rule 3745-17-07(A)(3), OAC rule 3745-77-07(A)(3)(a), and OAC rule 3745-77-07(A)(3)(b)]

- (8) The CAM plan for this emissions unit has been developed for PE and visible PE. The CAM performance indicator for visible PE is the opacity from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system. The visible PE indicator range is 3 consecutive minutes with an average opacity value less than 20%. When the average opacity value is outside the indicator range, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP operating parameters) will be required. The CAM performance indicators for PE are the visible PE from the ESP exhaust stack as measured and recorded by the certified continuous opacity monitoring system and a predictive PE model based upon the results of site specific particulate emission testing and emissions unit and ESP parametric data collected during the emission testing. The opacity indicator range is an hourly average opacity value less than 20%. When the hourly average opacity value is outside the indicator range, there is no reporting or corrective action requirement relative to the PE limitation, but the operator must enter the current ESP and emissions unit operating parameters into the site specific model to predict the particulate emissions. If the hourly average opacity does not return to a level within the indicated range, the model is run every 3 hours to evaluate emissions. If the results of the predictive model indicate that the PE limitation may have been exceeded, the permittee shall take corrective action to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in section e)(3) below. The predictive model shall be run in accordance with the approved CAM Plan or any approved revision of the Plan. Model calibration will be re-verified through periodic emission testing or if the ESP or emissions unit operating conditions change. In addition to periodic monitoring of their ESP operating parameters, the permittee also has an annual inspection and maintenance program for their ESP. Based on the results of the monitoring and inspection program, repairs to the ESP are made per the manufacturer's recommendation. If the current CAM indicators and/or the ESP maintenance program is considered inadequate, the permittee will develop a Quality Improvement Plan.



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[OAC rule 3745-77-07(A)(3)(a), OAC rule 3745-77-07(A)(3)(b), 40 CFR Part 64.3(a), 40 CFR Part 64.6(c), 40 CFR Part 64.7(d), and 40 CFR Part 64.8]

(9) The permit-to-install (PTI) application for this emissions unit B005 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Pollutant: lead
TLV (ug/m3): 50
Maximum Hourly Emission Rate (lbs/hr): 0.525



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Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.3204
MAGLC (ug/m3): 1.19

Pollutant: arsenic
TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.102
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0621
MAGLC (ug/m3): 0.24

Pollutant: cadmium
TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.102
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0625
MAGLC (ug/m3): 0.24

Pollutant: chromium
TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.104
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0636
MAGLC (ug/m3): 0.24

Pollutant: cobalt
TLV (ug/m3): 20
Maximum Hourly Emission Rate (lbs/hr): 0.0000
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0001
MAGLC (ug/m3): 0.48

Pollutant: manganese
TLV (ug/m3): 200
Maximum Hourly Emission Rate (lbs/hr): 0.04
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.024
MAGLC (ug/m3): 4.76

Pollutant: mercury
TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.086
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0521
MAGLC (ug/m3): 0.24

Pollutant: nickel
TLV (ug/m3): 100
Maximum Hourly Emission Rate (lbs/hr): 0.063
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0388
MAGLC (ug/m3): 2.38

Pollutant: hydrogen chloride
TLV (ug/m3): 5,496
Maximum Hourly Emission Rate (lbs/hr): 127.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 77.73
MAGLC (ug/m3): 130.87



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Pollutant: PCB
TLV (ug/m3): 500
Maximum Hourly Emission Rate (lbs/hr): 0.011
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0068
MAGLC (ug/m3): 11.90

The permittee, has demonstrated that emissions of the individual toxic contaminant(s) modeled, pursuant to OAC 3745-114-01, from emissions unit(s) B005, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (10) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (11) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):



- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (12) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

e) Reporting Requirements

- (1) The permittee shall notify the USEPA and the Ohio EPA in writing if on-specification used oil, which exceeds the specifications in c)(1), is burned in this emissions unit. The notification shall include a copy of the on-specification used oil analysis and shall be sent to the USEPA and the Ohio EPA within 30 days of the exceedance.

[OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(A)(3)(c), 40 CFR Part 279 and OAC rule 3745-279-11]

- (2) The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil in each shipment and the calculated SO₂ emission rate for each shipment of oil shall also be included with the copies of the permittee's or oil supplier's analyses.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the No. 2 fuel oil shipments received during the previous calendar quarters.



[OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(3)(c)]

- (3) The permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Akron RAQMD documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document any continuous opacity monitoring system downtime while the emissions unit was on line and combusting any fuel other than natural gas (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

[OAC rule 3745-77-07(A)(3)(c) and 40 CFR Part 64.9(a)]

- (4) The permittee shall submit deviation (excursion) reports that identify the following:
- a. all exceedances of the rolling, 12-month limitation for on-specification used oil;
 - b. all exceedances of the rolling, 12-month limitation for SO₂;
 - c. all exceedances of the fuel oil sulfur content restriction;
 - d. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded 250 degrees Fahrenheit;
 - e. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section c.4 of this permit; and
 - f. the sections of the ESP that were out of service, when the emissions unit was in operation and the ESP was required to be in service, along with the time period(s) involved;



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The quarterly deviation reports shall be submitted as specified in General Condition A.1.c.ii of this permit.

[OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(3)(c)]

- (5) The permittee shall submit quarterly reports that specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

[OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(3)(c)]

- (6) The permittee shall also submit annual reports that specify the total NO_x, CO, OC and Pb emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

[OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(3)(c)]

- (7) If the results of the predictive model indicate that the particulate emission limitation may have been exceeded, the permittee shall submit the results of the predictive modeling and document any corrective action taken to restore operation of the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The reports shall be submitted in accordance with General Term and Condition A.1.c.iii of this permit.

[40 CFR Part 64.7(d) and 40 CFR Part 64.9(a)]

f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted approximately within 3 months after issuance of the permit and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PE, NO_x, OC, SO₂, and CO. The emission testing shall be conducted while the emissions unit is combusting the worst case fuel for each pollutant.
 - c. The following test methods shall be employed to demonstrate compliance with the following allowable emission limitations:
 - i. for PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A;
 - ii. for NO_x, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A;
 - iii. for OC, Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A;
 - iv. for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A; and



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v. for SO₂, Methods 1 through 4 and 6 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 emission tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Akron RAQMD.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

(2) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Akron RAQMD. 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 Akron RAQMD's refusal to accept the results of the emission test(s).

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

(3) Personnel from the Akron RAQMD 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.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

(4) A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Akron RAQMD 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 Akron RAQMD.

[OAC rule 3745-15-04(A), OAC rule 3745-31-05(A)(3), and OAC rule 3745-77-07(A)(3)(c)]

(5) Compliance with the emission limitations in Section b.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

When burning a combination of natural gas, No. 2 fuel oil, on-specification used oil, PE shall not exceed 0.11 pound per million Btu of actual heat input, 19.8 pounds per hour, and 86.72 tons per year.

Applicable Compliance Method:

Compliance with the pound per million Btu and pounds per hour emission limitations shall be determined through the emission testing requirements specified in Section f)(1). The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours per year and dividing by



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2000 pounds per ton. Therefore, provided the permittee demonstrates compliance with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

b. Emission Limitation:

When burning natural gas or No. 2 fuel oil, PE shall not exceed 0.020 pound per million Btu of actual heat input.

Applicable Compliance Method:

When burning natural gas, compliance with this emission limitation may be determined by dividing an emission factor of 7.6 pounds of PE per million standard cubic feet by the heating value of the natural gas (1020 Btu/standard cu. ft.). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2 (7/98).

When burning No. 2 fuel oil, compliance may be determined by multiplying an emission factor of 2.0 pounds of PE per thousand gallons of oil fired by the emissions unit's maximum hourly fuel oil firing capacity (1286 gallons/hr at 140,000 Btu/gal) and dividing by the emissions unit's rated heat input capacity (180 MMBtu/hr).

This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1 (9/98).

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 1 through 5 while burning No. 2 fuel oil.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

c. Emission Limitations:

NOx emissions shall not exceed 70.3 pounds per hour and 307.9 tons per year.

Applicable Compliance Method:

Compliance with the pounds per hour emission limitation shall be determined through the emission testing requirements specified in Section f.1. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours per year and dividing by 2000 pounds per ton. Therefore, provided the permittee demonstrates compliance with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]



d. Emission Limitation:

SO₂ emissions shall not exceed 101 pounds per hour.

Applicable Compliance Method:

The permittee may demonstrate compliance with this emission limitation based upon the records required pursuant to Section d and through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 while burning on-specification used oil.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

e. Emission Limitations:

CO emissions shall not exceed 27.0 pounds per hour and 118.3 tons per year.

Applicable Compliance Method:

Compliance with the pounds per hour emission limitation shall be determined through the emission testing requirements specified in Section f)(1). The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours per year and dividing by 2000 pounds per ton. Therefore, provided the permittee demonstrates compliance with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

f. Emission Limitations:

OC emissions shall not exceed 42 pounds per hour and 183.96 tons per year.

Applicable Compliance Method:

Compliance with the pounds per hour emission limitation shall be determined through the emission testing requirements specified in Section f)(1). The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours per year and dividing by 2000 pounds per ton. Therefore, provided the permittee demonstrates compliance with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

g. Emission Limitations:

Pb emissions shall not exceed 0.0843 pound per hour and 0.4 ton per year.

Applicable Compliance Method:

Compliance with the hourly emission limitation may be determined by multiplying an emission factor of 55*L pound(s) per thousand gallons of on-specification used oil burned (L= maximum lead content of fuel in wt%) by the emissions unit's maximum hourly on-specification used oil firing capacity (1286 gallons/hr at



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140,000 Btu/gal) and applying the ESP emission reduction factor determined during the most recent emission tests that demonstrated the emissions unit was in compliance. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.11, Table 1.11-1 (10/96). The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours per year and dividing by 2000 pounds per ton. Therefore, provided the permittee demonstrates compliance with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

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 1 through 4 and 12 or 29.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

h. Emission Limitation:

Visible PE shall not exceed 20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

i. Emission Limitation:

SO₂ emissions shall not exceed 48.5 tons per rolling, 12-month period.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based upon the records required pursuant to Section d.

[OAC rule 3745-15-04(A) and OAC rule 3745-31-05(A)(3)]

g) Miscellaneous Requirements

- (1) The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.



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[OAC rule 3745-15-04(C), OAC rule 3745-77-07(A)(3)(b), and 40 CFR Part 64.3(a)(1)]

- (2) This emissions unit is no longer capable of combusting solid fuels such as wood do to a change made to the material handling system that serves this emissions unit.



6. F001, Coal Unloading (formerly Z001)

Operations, Property and/or Equipment Description:

Coal Unloading Activities

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 operations(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. 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 3745-17-07(B)(7)(b)	Visible PE shall not exceed 20% opacity, as a 3-minute average.
b.	OAC rule 3745-17-08(B), (B)(6)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections b)(2)e through b)(2)g.)

(2) Additional Terms and Conditions

a. The coal unloading stations for barges, railcars, or trucks that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all coal unloading stations at the facility

b. The coal conveyors that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all coal conveyors at the facility

c. The coal handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all coal handling operations at the facility

d. The coal transfer points that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all coal transfer points at the facility



- e. The permittee shall employ reasonably available control measures on all coal unloading stations for trucks, coal conveyors, coal handling operations, and coal transfer points for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the coal unloading stations, coal conveyors, coal handling operations, and coal transfer points with suitable dust suppression chemicals at sufficient treatment frequencies and use adequate enclosures to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
 - f. For each coal unloading station, coal conveyor, coal handling operation, and coal transfer point that is not enclosed, such unloading station, conveyor, handling operation or transfer point shall be treated with suitable dust suppression chemicals if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during operation of any coal unloading station, coal conveyor, coal handling, or coal transfer point until further observation confirms that use of the control measures is unnecessary.
 - g. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) Except as otherwise provided in this section and for coal unloading stations that are not adequately enclosed, the permittee shall perform inspections of such coal unloading stations in accordance with the following frequencies:

coal unloading station identification: all coal unloading stations at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]
 - (2) Except as otherwise provided in this section and for coal conveyors that are not adequately enclosed, the permittee shall perform inspections of such coal conveyors in accordance with the following frequencies:

coal conveyor identification: all coal conveyors at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]



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- (3) Except as otherwise provided in this section and for coal handling operations that are not adequately enclosed, the permittee shall perform inspections of such coal handling operations in accordance with the following frequencies:

coal handling operation identification: all coal handling operations at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (4) Except as otherwise provided in this section and for coal transfer points that are not adequately enclosed, the permittee shall perform inspections of such coal transfer points in accordance with the following frequencies:

coal transfer point identification: all coal transfer points at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (5) The above-mentioned inspections shall be performed during representative, normal operating conditions.

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (6) The permittee may, upon receipt of written approval from the Akron RAQMD, modify the abovementioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements. Such modified inspection frequencies would be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (7) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed;
- b. the date of each inspection where it was determined by the permittee that it was necessary to
- c. implement the control measures;
- d. the dates the control measures were implemented; and
- e. on a calendar quarter basis, the total number of days the control measures were implemented.

The information in 7.d. shall be kept separately for (i) the coal unloading stations, (ii) the coal conveyors, (iii) the coal handling operations, and (iv) the coal transfer points, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.



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[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(b)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation reports that identify any of the following occurrences:

- a. each day during which an inspection was not performed by the required frequency; and
- b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(c)]

f) Testing Requirements

(1) Compliance with the emission limitations for coal unloading, conveyors, handling operations, and transfer points identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

[OAC rule 3745-15-04(A) and OAC rule 3745-17-03(B)(3)]

g) Miscellaneous Requirements

(1) None.



7. F002, Wood Unloading (formerly Z005)

Operations, Property and/or Equipment Description:

Wood Unloading Activities

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 operations(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. 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 3745-17-07(B)(7)(b)	Visible PE shall not exceed 20% opacity, as a 3-minute average.
b.	OAC rule 3745-17-08(B), (B)(6)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections b)(2)e through b)(2)g.)

(2) Additional Terms and Conditions

a. The material unloading stations for barges, railcars, or trucks that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all material unloading stations at the facility

b. The material conveyors that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all material conveyors at the facility

c. The material handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all material handling operations at the facility

d. The material transfer points that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all material transfer points at the facility



- e. The permittee shall employ reasonably available control measures on all material unloading stations for trucks, material conveyors, material handling operations, and material transfer points for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the coal unloading stations, coal conveyors, coal handling operations, and coal transfer points with suitable dust suppression chemicals at sufficient treatment frequencies and use adequate enclosures to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
 - f. For each material unloading station, material conveyor, material handling operation, and material transfer point that is not enclosed, such unloading station, conveyor, handling operation or transfer point shall be treated with suitable dust suppression chemicals if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during operation of any coal unloading station, coal conveyor, coal handling, or coal transfer point until further observation confirms that use of the control measures is unnecessary.
 - g. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) Except as otherwise provided in this section and for coal unloading stations that are not adequately enclosed, the permittee shall perform inspections of such material unloading stations in accordance with the following frequencies:

material unloading station identification: all material unloading stations at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]
 - (2) Except as otherwise provided in this section and for material conveyors that are not adequately enclosed, the permittee shall perform inspections of such material conveyors in accordance with the following frequencies:

material conveyor identification: all material conveyors at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]



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- (3) Except as otherwise provided in this section and for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such coal handling operations in accordance with the following frequencies:

material handling operation identification: all material handling operations at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (4) Except as otherwise provided in this section and for material transfer points that are not adequately enclosed, the permittee shall perform inspections of such material transfer points in accordance with the following frequencies:

material transfer point identification: all material transfer points at the facility

minimum inspection frequency: weekly

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (5) The above-mentioned inspections shall be performed during representative, normal operating conditions.

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (6) The permittee may, upon receipt of written approval from the Akron RAQMD, modify the abovementioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements. Such modified inspection frequencies would be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(a)]

- (7) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed;
- b. the date of each inspection where it was determined by the permittee that it was necessary to
- c. implement the control measures;
- d. the dates the control measures were implemented; and
- e. on a calendar quarter basis, the total number of days the control measures were implemented.

The information in 7)d. shall be kept separately for (i) the material unloading stations, (ii) the material conveyors, (iii) the material handling operations, and (iv) the material transfer points, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.



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[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(b)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation reports that identify any of the following occurrences:

- a. each day during which an inspection was not performed by the required frequency; and
- b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

[OAC rule 3745-17-08(B) and OAC rule 3745-77-07(A)(3)(c)]

f) Testing Requirements

(1) Compliance with the emission limitations for coal unloading, conveyors, handling operations, and transfer points identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

[OAC rule 3745-15-04(A) and OAC rule 3745-17-03(B)(3)]

g) Miscellaneous Requirements

(1) None.

ATTACHMENT B
TO DIRECTOR'S FINDINGS AND ORDERS

Permit to Install issued to Akron Thermal Energy Company, 3/26/2002, for the AP
Plant; Re Application No. 16-02187

Regardless of any reference herein to the term, "permit," these terms and
conditions do not constitute a permit to install for either the City of Akron or
Akron Energy Systems LLC.



State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL
SUMMIT COUNTY
Application No: 16-02187

CERTIFIED MAIL

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
E	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 3/26/2002

AP Plant
Jim Benson
226 Opportunity Pkwy
Akron, OH 44307-2232

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

ARAQMD



FINAL PERMIT TO INSTALL 16-02187

Application Number: 16-02187
APS Premise Number: 1677010757
Permit Fee: \$2400
Name of Facility: AP Plant
Person to Contact: Jim Benson
Address: 226 Opportunity Pkwy
Akron, OH 44307-2232

Location of proposed air contaminant source(s) [emissions unit(s)]:
226 Opportunity Pkwy
Akron, Ohio

Description of proposed emissions unit(s):
Modification to Burn a Restricted Qunatity of Waste Oil.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.10 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

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

4. 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.

5. 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.

6. 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. 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.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. 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.

9. Compliance Requirements

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

- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. 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.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. 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:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. 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.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is

granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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.)

3. 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.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

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

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	260.2
NOx	923.7
SO2	48.5
CO	354.9
OC	551.9
Pb	1.2

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B003-Unit #1, Babcock and Wilcox 180 MMBtu/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05(A)(3)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B) &(C), 3745-17-09, 3745-18-06(D), 3745-31-05(D), and 40 CFR 60 Subpart E.</p> <p>When burning natural gas and/or no.2 fuel oil exclusively, particulate (PM) emissions shall not exceed 0.02 lb / MMBtu of actual heat input;</p> <p>When burning a combination of the following fuels: natural gas, no.2 fuel oil, waste oil and/or wood (as described in term A.II.2), particulate (PM) emissions shall not exceed 0.11 lb / MMBtu of actual heat input , 19.8 lbs/hr and, 86.72 tpy PM;</p> <p>nitrogen oxides (NO_x) emissions shall not exceed 70.3 lbs/hr and 307.9 tpy NO_x;</p> <p>sulfur dioxide (SO₂) emissions shall not exceed 101 lbs/hr;</p> <p>carbon monoxide (CO) emissions shall not exceed 27.0 lbs/hr and 118.3 tpy CO;</p>

	organic compounds (OC) emissions shall not exceed 42 lbs/hr and 183.96 tpy OC;
	lead (Pb) emissions shall not exceed 0.0843 lb/hr and 0.4 tpy Pb;
	0.50 weight percent sulfur content for all oil fired;
	20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.
	See A.2.a below.
OAC rule 3745-17-07(A)	See A.2.b below.
OAC rule 3745-17-10(B)	Applicable particulate rule when burning natural gas and/or no.2 fuel oil, see A.2.b below.
OAC rule 3745-17-10(C)	Applicable particulate rule when burning waste oil, see A.2.b below.
OAC rule 3745-17-09	Applicable particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
OAC rule 3745-18-06(D)	Applicable sulfur dioxide rule when burning any of the following: natural gas, fuel oil, and waste oil. see, see A.2.b below.
40 CFR 60, Subpart E	Applicable federal particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
OAC rule 3745-31-05(D)	This emissions unit is limited to burning natural gas, #2 fuel oil, wood (as described in term A.II.3), used oil or a combination of these fuels. The amount of these fuels for emissions unit B003 through B005 is limited by the equation

found in paragraph A.II.2. and by a limit of no more than 1,000,000 gallons of used oil per rolling 12-month period.

48.5 tons of SO₂ per rolling 12-month period for emissions units B003 through B005 combined.

2. Additional Terms and Conditions

- 2.a All used oil burned in this emissions unit shall be "on-specification used oil" in accordance with the definitions specified in 40 CFR Part 279 and OAC rule 3745-58-50.
- 2.b The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- 2.c Based upon information submitted by the applicant in their November 20, 2001 letter, the annual actual SO₂ emissions are 8.9 tons per year based upon years 1999 and 2000 reporting.

II. Operational Restrictions

1. Used Oil Restrictions:

On-specification used oil shall not be fired during emissions unit start-ups or shutdowns. On-specification used oil shall not be fired until the emissions unit reaches normal operating temperatures.

All on-specification used oil fired in this emissions unit shall meet the following specifications:

Contaminants/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100 degrees Fahrenheit, minimum
heat content	100,000 Btu/gallon, minimum
sulfur	0.5%, by weight, maximum

Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph C of OAC rule 3745-58-50. Therefore, the permittee may burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm maximum) only if the permittee has demonstrated to the Ohio EPA's Division of Hazardous Waste Management that the used oil does not contain any hazardous wastes.

2. Emission and Used Oil Burned Restrictions:

In order to avoid applicability of the Prevention of Significant Deterioration rules, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B005 combined by the following formula#:

$$\left(\frac{W \text{ gal of \#2 fuel oil burned}}{\text{rolling 12 - month period}} \right) \left(\frac{142(S_1) \text{ lbs of SO}_2}{1000 \text{ gal of fuel oil}} \right) +$$

$$\left(\frac{X \text{ gal of used oil burned}}{\text{rolling 12 - month period}} \right) \left(\frac{147(S_2) \text{ lbs of SO}_2}{1000 \text{ gal of used oil}} \right) +$$

$$\left(\frac{Y \text{ lbs of wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.025 \text{ lbs of SO}_2}{10^6 \text{ BTU}} \right) \left(\frac{4500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left(\frac{Z \text{ CF natural gas burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.6 \text{ lbs of SO}_2}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left(\frac{97000 \text{ lbs of SO}_2}{\text{rolling 12 - month period}} \right)$$

Where:

W is the number of gallons of #2 fuel oil burned per rolling 12 - month period

X is the number of gallons of used oil burned per rolling 12 - month period

Y is the pounds of wood burned per rolling 12 - month period

Z is the cubic feet of natural gas burned per rolling 12 - month period

*S*₁ is the 12 - month rolling weight percent sulfur in the #2 fuel oil

*S*₂ is the 12 - month rolling weight percent sulfur in the used oil

note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above SO₂ lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and Akron Thermal.

and in addition during the first 12 calendar months of operation while burning used oil following the issuance of this permit, the permittee shall not exceed the used oil burned limitations specified in the following table:

Month	Maximum Allowable Used Oil Burned (B003 - B005) (gallons)
1	200,000
1 - 2	200,000
1 - 3	400,000
1 - 4	400,000
1 - 5	600,000
1 - 6	600,000
1 - 7	800,000
1 - 8	800,000
1 - 9	1,000,000
1 - 10	1,000,000
1 - 11	1,000,000
1 - 12	1,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used oil burned limitation shall be based upon a rolling, 12-month summation of used oil burned, in gallons.

3. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

4. Requirements for the Sampling and Analysis of the Used Oil & #2 Fuel Oil burned:

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of #2 fuel oil and used oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

5. ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

III. Monitoring and/or Recordkeeping Requirements

1. Used Oil Requirements:

The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- a. date of shipment or delivery;
- b. quantity of used oil received;
- c. the Btu value of the used oil;
- d. the flash point of the used oil;
- e. the arsenic content;
- f. the cadmium content;
- g. the chromium content;
- h. the lead content;
- i. the PCB content;

- j. the total halogen content;
- k. the mercury content; and
- l. the sulfur content.

The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by the facility, of any used oil stored at this facility, or of any used oil sampled at the emissions unit.

The permittee shall conduct or have performed an analysis of a representative sample of used oil from any used oil storage tank located at the facility on an annual basis. The analysis shall be performed to determine conformance with the contaminant specifications identified in section A.II.1.

2. Recordkeeping Requirements for Used Oil & #2 Fuel Oil Usage and Quality

For each shipment of used oil and #2 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

3. Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

4. ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the 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 permittee shall record the following information for each day:

- a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
- b. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.

5. The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:

- a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and

- b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

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.

6. The permittee shall maintain monthly records of the following information in emission units B003 - B005:
 - a. the number of gallons of #2 fuel oil burned;
 - b. the number of gallons of used oil burned;
 - c. the pounds of wood burned;
 - d. the cubic feet of natural gas burned;
 - e. the rolling, 12-month summation of each fuel used;
 - f. the calculations and the results of the determination that the formula in term A.II.2 was met;
 - g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the used oil burned figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative used oil burned levels for each calendar month.

IV. Reporting Requirements

1. The permittee shall notify the USEPA and the Ohio EPA in writing if used oil which exceeds the specifications in A.II.1 is fired in this emissions unit. The notification shall include a copy of the used oil analysis and shall be sent to the USEPA and the Ohio EPA within 30 days of becoming aware of such occurrence.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of used oil and #2 fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:

- a. the total quantity of used oil and #2 fuel oil received in each shipment (gallons);
- b. the weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the used oil and #2 fuel oil received during the calendar month; and
- c. the weighted* average heat content (Btu/gallon) of the used oil and #2 fuel oil received during the calendar month.

*In proportion to the quantity of used oil and #2 fuel oil received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the used oil and #2 fuel oil shipments received during the previous calendar quarters.

3. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

4. The permittee shall submit deviation (excursion) reports which identify:
 - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i); and

- b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit.
5. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative used oil burned and SO₂ emission levels (compliance with SO₂ emissions levels is demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B005.
7. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
8. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of the start-up of the combustion of waste oil.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO_x, OC, and CO. The emission testing shall be conducted while the emissions unit is combusting the worst case fuel for each pollutant.
 - c. The following test method(s) shall be employed to demonstrate compliance with the following allowable mass emission rate(s):

for NO_x, Method 7 of 40 CFR Part 60, Appendix A (while firing wood);
for OC, Method 25 of 40 CFR Part 60, Appendix A (while firing wood);
and
for CO, Method 10 of 40 CFR Part 60, Appendix A (while firing wood).

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 appropriate Ohio EPA District Office or local air agency.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the ESP control system) shall be determined in accordance with approved test methods and procedures. The control efficiency shall be determined to evaluate the actual percent reduction in emissions of the ESP for modeling purposes.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).
3. Personnel from the appropriate Ohio EPA District Office or local air agency 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.
4. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.
5. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.11 lb particulate / MMBtu of actual heat input

19.8 lbs/hr particulates

86.72 tpy particulates

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 5, 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0.020 lb particulate / MMBtu of actual heat input, when combusting only natural gas

Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs particulate per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb particulate per mmBtu.

c. Emission Limitation:

70.3 lbs/hr NO_x

307.9 tpy NO_x

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 7, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

101 lbs/hr SO₂

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

e. Emission Limitation:

0.50 weight percent sulfur content for all oil fired

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

f. Emission Limitation:

27.0 lbs/hr CO

118.3 tpy CO

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 10, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

42.0 lbs/hr OC

183.96 tpy OC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 25, 40 CFR Part 60, Appendix A.

h. Emission Limitation:

0.0843 lb/hr Pb

0.4 tpy Pb

Applicable Compliance Method:

Multiply the AP-42 [(10/96) Table 1.11-1] emission factor for waste oil combustion of $55 \cdot L$ lb Pb per 10^3 gallons combusted (L = maximum lead content of fuel in wt%) by the maximum combustion rate and apply the ESP emission reduction factor determined during the last stack test that demonstrated the emissions unit was in compliance.

i. Emission Limitation:

20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

Combustion of only "on-specification used oil."

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 of these T&Cs.

k. Emission Limitation:

48.5 tpy SO₂ from the combustion of waste oil in combined emission units
B003 - B005

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.6 of these T&Cs.

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements contained in permits to install 16-037 and 16-294 issued on March 17, 1976 and July 11, 1984, respectively.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B003- Unit #1, Babcock and Wilcox 180 MMBtu/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (B003 - B005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: lead

TLV (ug/m3): 50
Maximum Hourly Emission Rate (lbs/hr): 0.525
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.3204
MAGLC (ug/m3): 1.19

Pollutant: arsenic

TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.102
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0621
MAGLC (ug/m3): 0.24

Pollutant: cadmium

TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.102
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0625
MAGLC (ug/m3): 0.24

Pollutant: chromium

TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.104
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0636
MAGLC (ug/m3): 0.24

Pollutant: cobalt

TLV (ug/m3): 20
Maximum Hourly Emission Rate (lbs/hr): 0.0000
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0001
MAGLC (ug/m3): 0.48

Pollutant: manganese

TLV (ug/m3): 200
Maximum Hourly Emission Rate (lbs/hr): 0.04
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.024
MAGLC (ug/m3): 4.76

Pollutant: mercury

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.086

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0521

MAGLC (ug/m3): 0.24

Pollutant: nickel

TLV (ug/m3): 100

Maximum Hourly Emission Rate (lbs/hr): 0.063

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0388

MAGLC (ug/m3): 2.38

Pollutant: hydrogen chloride

TLV (ug/m3): 5,496

Maximum Hourly Emission Rate (lbs/hr): 127.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 77.73

MAGLC (ug/m3): 130.87

Pollutant: PCB

TLV (ug/m3): 500

Maximum Hourly Emission Rate (lbs/hr): 0.011

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0068

MAGLC (ug/m3): 11.90

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

	organic compounds (OC) emissions shall not exceed 42 lbs/hr and 183.96 tpy OC;
	lead (Pb) emissions shall not exceed 0.0843 lb/hr and 0.4 tpy Pb;
	0.50 weight percent sulfur content for all oil fired;
	20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.
	See A.2.a below.
OAC rule 3745-17-07(A)	See A.2.b below.
OAC rule 3745-17-10(B)	Applicable particulate rule when burning natural gas and/or no.2 fuel oil, see A.2.b below.
OAC rule 3745-17-10(C)	Applicable particulate rule when burning waste oil, see A.2.b below.
OAC rule 3745-17-09	Applicable particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
OAC rule 3745-18-06(D)	Applicable sulfur dioxide rule when burning any of the following: natural gas, fuel oil, and waste oil. see, see A.2.b below.
40 CFR 60, Subpart E	Applicable federal particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
OAC rule 3745-31-05(D)	This emissions unit is limited to burning natural gas, #2 fuel oil, wood (as described in term A.II.3), used oil or a combination of these fuels. The amount of these fuels for emissions unit B003 through B005 is limited by the equation

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004-Unit #2, Babcock and Wilcox 180 MMBtu/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05(A)(3)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B) &(C), 3745-17-09, 3745-18-06(D), 3745-31-05(D), and 40 CFR 60 Subpart E.</p> <p>When burning natural gas and/or no.2 fuel oil exclusively, particulate (PM) emissions shall not exceed 0.02 lb / MMBtu of actual heat input;</p> <p>When burning a combination of the following fuels: natural gas, no.2 fuel oil, waste oil and/or wood (as described in term A.II.2), particulate (PM) emissions shall not exceed 0.11 lb / MMBtu of actual heat input , 19.8 lbs/hr and, 86.72 tpy PM;</p> <p>nitrogen oxides (NO_x) emissions shall not exceed 70.3 lbs/hr and 307.9 tpy NO_x;</p> <p>sulfur dioxide (SO₂) emissions shall not exceed 101 lbs/hr;</p> <p>carbon monoxide (CO) emissions shall not exceed 27.0 lbs/hr and 118.3 tpy CO;</p>

Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph C of OAC rule 3745-58-50. Therefore, the permittee may burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm maximum) only if the permittee has demonstrated to the Ohio EPA's Division of Hazardous Waste Management that the used oil does not contain any hazardous wastes.

2. Emission and Used Oil Burned Restrictions:

In order to avoid applicability of the Prevention of Significant Deterioration rules, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B005 combined by the following formula#:

$$\left(\frac{W \text{ gal of \#2 fuel oil burned}}{\text{rolling 12 - month period}} \right) \left(\frac{142(S_1) \text{ lbs of SO}_2}{1000 \text{ gal of fuel oil}} \right) +$$
$$\left(\frac{X \text{ gal of used oil burned}}{\text{rolling 12 - month period}} \right) \left(\frac{147(S_2) \text{ lbs of SO}_2}{1000 \text{ gal of used oil}} \right) +$$
$$\left(\frac{Y \text{ lbs of wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.025 \text{ lbs of SO}_2}{10^6 \text{ BTU}} \right) \left(\frac{4500 \text{ BTU}}{\text{lbs of wood}} \right) +$$
$$\left(\frac{Z \text{ CF natural gas burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.6 \text{ lbs of SO}_2}{10^6 \text{ CF of natural gas}} \right) \leq$$
$$\left(\frac{97000 \text{ lbs of SO}_2}{\text{rolling 12 - month period}} \right)$$

Where:

W is the number of gallons of #2 fuel oil burned per rolling 12 - month period

X is the number of gallons of used oil burned per rolling 12 - month period

Y is the pounds of wood burned per rolling 12 - month period

Z is the cubic feet of natural gas burned per rolling 12 - month period

*S*₁ is the 12 - month rolling weight percent sulfur in the #2 fuel oil

*S*₂ is the 12 - month rolling weight percent sulfur in the used oil

note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above SO₂ lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and Akron Thermal.

found in paragraph A.II.2. and by a limit of no more than 1,000,000 gallons of used oil per rolling 12-month period.

48.5 tons of SO₂ per rolling 12-month period for emissions units B003 through B005 combined.

2. Additional Terms and Conditions

- 2.a All used oil burned in this emissions unit shall be "on-specification used oil" in accordance with the definitions specified in 40 CFR Part 279 and OAC rule 3745-58-50.
- 2.b The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- 2.c Based upon information submitted by the applicant in their November 20, 2001 letter, the annual actual SO₂ emissions are 8.9 tons per year based upon years 1999 and 2000 reporting.

II. Operational Restrictions

1. Used Oil Restrictions:

On-specification used oil shall not be fired during emissions unit start-ups or shutdowns. On-specification used oil shall not be fired until the emissions unit reaches normal operating temperatures.

All on-specification used oil fired in this emissions unit shall meet the following specifications:

Contaminants/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100 degrees Fahrenheit, minimum
heat content	100,000 Btu/gallon, minimum
sulfur	0.5%, by weight, maximum

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of #2 fuel oil and used oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

5. ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

III. Monitoring and/or Recordkeeping Requirements

1. Used Oil Requirements:

The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- a. date of shipment or delivery;
- b. quantity of used oil received;
- c. the Btu value of the used oil;
- d. the flash point of the used oil;
- e. the arsenic content;
- f. the cadmium content;
- g. the chromium content;
- h. the lead content;

and in addition during the first 12 calendar months of operation while burning used oil following the issuance of this permit, the permittee shall not exceed the used oil burned limitations specified in the following table:

Month	Maximum Allowable Used Oil Burned (B003 - B005) (gallons)
1	200,000
1 - 2	200,000
1 - 3	400,000
1 - 4	400,000
1 - 5	600,000
1 - 6	600,000
1 - 7	800,000
1 - 8	800,000
1 - 9	1,000,000
1 - 10	1,000,000
1 - 11	1,000,000
1 - 12	1,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used oil burned limitation shall be based upon a rolling, 12-month summation of used oil burned, in gallons.

3. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

4. Requirements for the Sampling and Analysis of the Used Oil & #2 Fuel Oil Burned:

- i. the PCB content;
- j. the total halogen content;
- k. the mercury content; and
- l. the sulfur content.

The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by the facility, of any used oil stored at this facility, or of any used oil sampled at the emissions unit.

The permittee shall conduct or have performed an analysis of a representative sample of used oil from any used oil storage tank located at the facility on an annual basis. The analysis shall be performed to determine conformance with the contaminant specifications identified in section A.II.1.

2. Recordkeeping Requirements for Used Oil & #2 Fuel Oil Usage and Quality

For each shipment of used oil and #2 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

3. Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

4. ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the 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 permittee shall record the following information for each day:

- d. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
- e. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.

5. The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:

- a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and

- b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

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.

6. The permittee shall maintain monthly records of the following information in emission units B003 - B005:
 - a. the number of gallons of #2 fuel oil burned;
 - b. the number of gallons of used oil burned;
 - c. the pounds of wood burned;
 - d. the cubic feet of natural gas burned;
 - e. the rolling, 12-month summation of each fuel used;
 - f. the calculations and the results of the determination that the formula in term A.II.2 was met;
 - g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the used oil burned figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative used oil burned levels for each calendar month.

IV. Reporting Requirements

1. The permittee shall notify the USEPA and the Ohio EPA in writing if used oil which exceeds the specifications in A.II.1 is fired in this emissions unit. The notification shall include a copy of the used oil analysis and shall be sent to the USEPA and the Ohio EPA within 30 days of becoming aware of such occurrence.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of used oil and #2 fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:

- a. the total quantity of used oil and #2 fuel oil received in each shipment (gallons);
- b. the weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the used oil and #2 fuel oil received during the calendar month; and
- c. the weighted* average heat content (Btu/gallon) of the used oil and #2 fuel oil received during the calendar month.

*In proportion to the quantity of used oil and #2 fuel oil received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the used oil and #2 fuel oil shipments received during the previous calendar quarters.

3. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

4. The permittee shall submit deviation (excursion) reports which identify:
 - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i); and

- b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit.
5. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative used oil burned and SO₂ emission levels (compliance with SO₂ emissions levels is demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B005.
7. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
8. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of the start-up of the combustion of waste oil.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO_x, OC, and CO. The emission testing shall be conducted while the emissions unit is combusting the worst case fuel for each pollutant.
 - c. The following test method(s) shall be employed to demonstrate compliance with the following allowable mass emission rate(s):

for NO_x, Method 7 of 40 CFR Part 60, Appendix A (while firing wood);
for OC, Method 25 of 40 CFR Part 60, Appendix A (while firing wood);
and
for CO, Method 10 of 40 CFR Part 60, Appendix A (while firing wood).

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 appropriate Ohio EPA District Office or local air agency.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the ESP control system) shall be determined in accordance with approved test methods and procedures. The control efficiency shall be determined to evaluate the actual percent reduction in emissions of the ESP for modeling purposes.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).
3. Personnel from the appropriate Ohio EPA District Office or local air agency 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.
4. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.
5. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.11 lb particulate / MMBtu of actual heat input
19.8 lbs/hr particulates
86.72 tpy particulates

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 5, 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0.020 lb particulate / MMBtu of actual heat input, when combusting only natural gas

Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs particulate per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb particulate per mmBtu.

c. Emission Limitation:

70.3 lbs/hr NO_x
307.9 tpy NO_x

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 7, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

101 lbs/hr SO₂

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

e. Emission Limitation:

0.50 weight percent sulfur content for all oil fired

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

f. Emission Limitation:

27.0 lbs/hr CO
118.3 tpy CO

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 10, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

42.0 lbs/hr OC
183.96 tpy OC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 25, 40 CFR Part 60, Appendix A.

h. Emission Limitation:

0.0843 lb/hr Pb
0.4 tpy Pb

Applicable Compliance Method:

Multiply the AP-42 [(10/96) Table 1.11-1] emission factor for waste oil combustion of 55*L lb Pb per 10³ gallons combusted (L= maximum lead content of fuel in wt%) by the maximum combustion rate and apply the ESP emission reduction factor determined during the last stack test that demonstrated the emissions unit was in compliance.

i. Emission Limitation:

20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

Combustion of only "on-specification used oil."

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 of these T&Cs.

k. Emission Limitation:

48.5 tpy SO₂ from the combustion of waste oil in combined emission units
B003 - B005

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.6 of these T&Cs.

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements contained in permits to install 16-037 and 16-294 issued on March 17, 1976 and July 11, 1984, respectively.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004- Unit #2, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (B003 - B005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: lead

TLV (ug/m3): 50

Maximum Hourly Emission Rate (lbs/hr): 0.525

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.3204

MAGLC (ug/m3): 1.19

Pollutant: arsenic

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0621

MAGLC (ug/m3): 0.24

Pollutant: cadmium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0625

MAGLC (ug/m3): 0.24

Pollutant: chromium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.104

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0636

MAGLC (ug/m3): 0.24

Pollutant: cobalt

TLV (ug/m3): 20

Maximum Hourly Emission Rate (lbs/hr): 0.0000

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0001

MAGLC (ug/m3): 0.48

Pollutant: manganese

TLV (ug/m3): 200

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.024

MAGLC (ug/m3): 4.76

Pollutant: mercury

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.086

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0521

MAGLC (ug/m3): 0.24

Pollutant: nickel

TLV (ug/m3): 100

Maximum Hourly Emission Rate (lbs/hr): 0.063

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0388

MAGLC (ug/m3): 2.38

Pollutant: hydrogen chloride

TLV (ug/m3): 5,496

Maximum Hourly Emission Rate (lbs/hr): 127.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 77.73

MAGLC (ug/m3): 130.87

Pollutant: PCB

TLV (ug/m3): 500

Maximum Hourly Emission Rate (lbs/hr): 0.011

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0068

MAGLC (ug/m3): 11.90

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

- 2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>B005-Unit #3, Babcock and Wilcox 180 MMBtu/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B) &(C), 3745-17-09, 3745-18-06(D), 3745-31-05(D), and 40 CFR 60 Subpart E.</p> <p>When burning natural gas and/or no.2 fuel oil exclusively, particulate (PM) emissions shall not exceed 0.02 lb / MMBtu of actual heat input;</p> <p>When burning a combination of the following fuels: natural gas, no.2 fuel oil, waste oil and/or wood (as described in term A.II.2), particulate (PM) emissions shall not exceed 0.11 lb / MMBtu of actual heat input , 19.8 lbs/hr and, 86.72 tpy PM;</p> <p>nitrogen oxides (NO_x) emissions shall not exceed 70.3 lbs/hr and 307.9 tpy NO_x;</p> <p>sulfur dioxide (SO₂) emissions shall not exceed 101 lbs/hr;</p> <p>carbon monoxide (CO) emissions shall not exceed 27.0 lbs/hr and 118.3 tpy CO;</p>

	organic compounds (OC) emissions shall not exceed 42 lbs/hr and 183.96 tpy OC;
	lead (Pb) emissions shall not exceed 0.0843 lb/hr and 0.4 tpy Pb;
	0.50 weight percent sulfur content for all oil fired;
	20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.
	See A.2.a below.
OAC rule 3745-17-07(A)	See A.2.b below.
OAC rule 3745-17-10(B)	Applicable particulate rule when burning natural gas and/or no.2 fuel oil, see A.2.b below.
OAC rule 3745-17-10(C)	Applicable particulate rule when burning waste oil, see A.2.b below.
OAC rule 3745-17-09	Applicable particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
OAC rule 3745-18-06(D)	Applicable sulfur dioxide rule when burning any of the following: natural gas, fuel oil, and waste oil. see, see A.2.b below.
40 CFR 60, Subpart E	Applicable federal particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
OAC rule 3745-31-05(D)	This emissions unit is limited to burning natural gas, #2 fuel oil, wood (as described in term A.II.3), used oil or a combination of these fuels. The amount of these fuels for emissions unit B003 through B005 is limited by the equation

found in paragraph A.II.2. and by a limit of no more than 1,000,000 gallons of used oil per rolling 12-month period.

48.5 tons of SO₂ per rolling 12-month period for emissions units B003 through B005 combined.

2. Additional Terms and Conditions

- 2.a All used oil burned in this emissions unit shall be "on-specification used oil" in accordance with the definitions specified in 40 CFR Part 279 and OAC rule 3745-58-50.
- 2.b The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- 2.c Based upon information submitted by the applicant in their November 20, 2001 letter, the annual actual SO₂ emissions are 8.9 tons per year based upon years 1999 and 2000 reporting.

II. Operational Restrictions

1. Used Oil Restrictions:

On-specification used oil shall not be fired during emissions unit start-ups or shutdowns. On-specification used oil shall not be fired until the emissions unit reaches normal operating temperatures.

All on-specification used oil fired in this emissions unit shall meet the following specifications:

Contaminants/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100 degrees Fahrenheit, minimum
heat content	100,000 Btu/gallon, minimum
sulfur	0.5%, by weight, maximum

Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph C of OAC rule 3745-58-50.

Therefore, the permittee may burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm maximum) only if the permittee has demonstrated to the Ohio EPA's Division of Hazardous Waste Management that the used oil does not contain any hazardous wastes.

2. Emission and Used Oil Burned Restrictions:

In order to avoid applicability of the Prevention of Significant Deterioration rules, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B005 combined by the following formula#:

$$\left(\frac{W \text{ gal of \#2 fuel oil burned}}{\text{rolling 12 - month period}} \right) \left(\frac{142(S_1) \text{ lbs of SO}_2}{1000 \text{ gal of fuel oil}} \right) +$$

$$\left(\frac{X \text{ gal of used oil burned}}{\text{rolling 12 - month period}} \right) \left(\frac{147(S_2) \text{ lbs of SO}_2}{1000 \text{ gal of used oil}} \right) +$$

$$\left(\frac{Y \text{ lbs of wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.025 \text{ lbs of SO}_2}{10^6 \text{ BTU}} \right) \left(\frac{4500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left(\frac{Z \text{ CF natural gas burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.6 \text{ lbs of SO}_2}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left(\frac{97000 \text{ lbs of SO}_2}{\text{rolling 12 - month period}} \right)$$

Where:

W is the number of gallons of #2 fuel oil burned per rolling 12 - month period

X is the number of gallons of used oil burned per rolling 12 - month period

Y is the pounds of wood burned per rolling 12 - month period

Z is the cubic feet of natural gas burned per rolling 12 - month period

*S*₁ is the 12 - month rolling weight percent sulfur in the #2 fuel oil

*S*₂ is the 12 - month rolling weight percent sulfur in the used oil

note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above SO₂ lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and Akron Thermal.

and in addition during the first 12 calendar months of operation while burning used oil following the issuance of this permit, the permittee shall not exceed the used oil burned limitations specified in the following table:

Month	Maximum Allowable Used Oil Burned (B003 - B005) (gallons)
1	200,000
1 - 2	200,000
1 - 3	400,000
1 - 4	400,000
1 - 5	600,000
1 - 6	600,000
1 - 7	800,000
1 - 8	800,000
1 - 9	1,000,000
1 - 10	1,000,000
1 - 11	1,000,000
1 - 12	1,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used oil burned limitation shall be based upon a rolling, 12-month summation of used oil burned, in gallons.

3. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

4. Requirements for the Sampling and Analysis of the Used Oil & #2 Fuel Oil Burned:

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of #2 fuel oil and used oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

5. ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

III. Monitoring and/or Recordkeeping Requirements

1. Used Oil Requirements:

The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- a. date of shipment or delivery;
- b. quantity of used oil received;
- c. the Btu value of the used oil;
- d. the flash point of the used oil;
- e. the arsenic content;
- f. the cadmium content;
- g. the chromium content;
- h. the lead content;

- i. the PCB content;
- j. the total halogen content;
- k. the mercury content; and
- l. the sulfur content.

The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by the facility, of any used oil stored at this facility, or of any used oil sampled at the emissions unit.

The permittee shall conduct or have performed an analysis of a representative sample of used oil from any used oil storage tank located at the facility on an annual basis. The analysis shall be performed to determine conformance with the contaminant specifications identified in section A.II.1.

2. Recordkeeping Requirements for Used Oil & #2 Fuel Oil Usage and Quality

For each shipment of used oil and #2 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

3. Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

4. ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the 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 permittee shall record the following information for each day:

- d. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
 - e. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.
5. The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
- a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and
 - b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

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.

6. The permittee shall maintain monthly records of the following information in emission units B003 - B005:
 - a. the number of gallons of #2 fuel oil burned;
 - b. the number of gallons of used oil burned;
 - c. the pounds of wood burned;
 - d. the cubic feet of natural gas burned;
 - e. the rolling, 12-month summation of each fuel used;
 - f. the calculations and the results of the determination that the formula in term A.II.2 was met;
 - g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the used oil burned figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative used oil burned levels for each calendar month.

IV. Reporting Requirements

1. The permittee shall notify the USEPA and the Ohio EPA in writing if used oil which exceeds the specifications in A.II.1 is fired in this emissions unit. The notification shall include a copy of the used oil analysis and shall be sent to the USEPA and the Ohio EPA within 30 days of becoming aware of such occurrence.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of used oil and #2 fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of used oil and #2 fuel oil received in each shipment (gallons);
 - b. the weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the used oil and #2 fuel oil received during the calendar month; and

- c. the weighted* average heat content (Btu/gallon) of the used oil and #2 fuel oil received during the calendar month.

*In proportion to the quantity of used oil and #2 fuel oil received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the used oil and #2 fuel oil shipments received during the previous calendar quarters.

3. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

4. The permittee shall submit deviation (excursion) reports which identify:
 - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i); and
 - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit.

5. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative used oil burned and SO₂ emission levels (compliance with SO₂ emissions levels is demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B005.
7. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
8. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of the start-up of the combustion of waste oil.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO_x, OC, and CO. The emission testing shall be conducted while the emissions unit is combusting the worst case fuel for each pollutant.
 - c. The following test method(s) shall be employed to demonstrate compliance with the following allowable mass emission rate(s):

for NO_x, Method 7 of 40 CFR Part 60, Appendix A (while firing wood);
for OC, Method 25 of 40 CFR Part 60, Appendix A (while firing wood);
and
for CO, Method 10 of 40 CFR Part 60, Appendix A (while firing wood).

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 appropriate Ohio EPA District Office or local air agency.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the ESP control system) shall be determined in accordance with approved test methods and procedures. The control efficiency shall be determined to evaluate the actual percent reduction in emissions of the ESP for modeling purposes.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).
3. Personnel from the appropriate Ohio EPA District Office or local air agency 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.
4. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.
5. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

0.11 lb particulate / MMBtu of actual heat input
19.8 lbs/hr particulates
86.72 tpy particulates

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 5, 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0.020 lb particulate / MMBtu of actual heat input, when combusting only natural gas

Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs particulate per 10⁶ scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb particulate per mmBtu.

c. Emission Limitation:

70.3 lbs/hr NO_x
307.9 tpy NO_x

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 7, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

101 lbs/hr SO₂

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

e. Emission Limitation:

0.50 weight percent sulfur content for all oil fired

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

f. Emission Limitation:

27.0 lbs/hr CO
118.3 tpy CO

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 10, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

42.0 lbs/hr OC

183.96 tpy OC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 25, 40 CFR Part 60, Appendix A.

h. Emission Limitation:

0.0843 lb/hr Pb

0.4 tpy Pb

Applicable Compliance Method:

Multiply the AP-42 [(10/96) Table 1.11-1] emission factor for waste oil combustion of 55*L lb Pb per 10³ gallons combusted (L= maximum lead content of fuel in wt%) by the maximum combustion rate and apply the ESP emission reduction factor determined during the last stack test that demonstrated the emissions unit was in compliance.

i. Emission Limitation:

20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

Combustion of only "on-specification used oil."

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 of these T&Cs.

k. Emission Limitation:

48.5 tpy SO₂ from the combustion of waste oil in combined emission units
B003 - B005

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.6 of these T&Cs.

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements contained in permits to install 16-037 and 16-294 issued on March 17, 1976 and July 11, 1984, respectively.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005- Unit #3, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (B003 - B005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: lead

TLV (ug/m3): 50
Maximum Hourly Emission Rate (lbs/hr): 0.525
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.3204
MAGLC (ug/m3): 1.19

Pollutant: arsenic

TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.102
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0621
MAGLC (ug/m3): 0.24

Pollutant: cadmium

TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.102
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0625
MAGLC (ug/m3): 0.24

Pollutant: chromium

TLV (ug/m3): 10
Maximum Hourly Emission Rate (lbs/hr): 0.104
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0636
MAGLC (ug/m3): 0.24

Pollutant: cobalt

TLV (ug/m3): 20
Maximum Hourly Emission Rate (lbs/hr): 0.0000
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0001
MAGLC (ug/m3): 0.48

Pollutant: manganese

TLV (ug/m3): 200
Maximum Hourly Emission Rate (lbs/hr): 0.04
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.024
MAGLC (ug/m3): 4.76

Pollutant: mercury

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.086

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0521

MAGLC (ug/m3): 0.24

Pollutant: nickel

TLV (ug/m3): 100

Maximum Hourly Emission Rate (lbs/hr): 0.063

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0388

MAGLC (ug/m3): 2.38

Pollutant: hydrogen chloride

TLV (ug/m3): 5,496

Maximum Hourly Emission Rate (lbs/hr): 127.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 77.73

MAGLC (ug/m3): 130.87

Pollutant: PCB

TLV (ug/m3): 500

Maximum Hourly Emission Rate (lbs/hr): 0.011

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0068

MAGLC (ug/m3): 11.90

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

- 2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

ATTACHMENT C
TO DIRECTOR'S FINDINGS AND ORDERS

Permit to Install issued to Akron Thermal Energy Company, 8/12/2008, for
Facility, ID No. 1677010757; Re Application No. 16-02294

Regardless of any reference herein to the term, "permit," these terms and
conditions do not constitute a permit to install for either the City of Akron or
Akron Energy Systems LLC.



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

8/12/2008

Certified Mail

Richard Pucak
Akron Thermal Energy Corporation
226 Opportunity Parkway
Akron, OH 44307-2232

Yes	TOXIC REVIEW
Yes	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1677010757
Permit Number: 16-02294
Permit Type: Initial installation
County: Summit

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

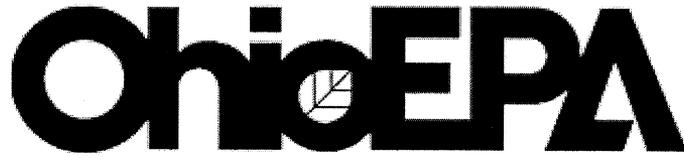
The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Akron Regional Air Quality Management District. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Akron Regional Air Quality Management District

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

Air Pollution Permit-to-Install
for
Akron Thermal Energy Corporation

Facility ID: 1677010757
Permit Number: 16-02294
Permit Type: Initial installation
Issued: 8/12/2008
Effective: 8/12/2008



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Air Pollution Permit-to-Install
 for
 Akron Thermal Energy Corporation

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 16-02294
Facility ID: 1677010757
Effective Date: 8/12/2008

Authorization

Facility ID: 1677010757
Facility Description: Steam and Air Conditioning Supply.
Application Number(s): A0012238
Permit Number: 16-02294
Permit Description: Administrative modification of PTI 16-02294 issued final on December 16, 2003.
Permit Type: Initial installation
Permit Fee: \$800.00
Issue Date: 8/12/2008
Effective Date: 8/12/2008

This document constitutes issuance to:

Akron Thermal Energy Corporation
226 Opportunity Parkway
Akron, OH 44307-2232

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 16-02294
Facility ID: 1677010757
Effective Date: 8/12/2008

Authorization (continued)

Permit Number: 16-02294

Permit Description: administrative modification of PTI 16-02294 issued final on December 16, 2003.

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

Emissions Unit ID:	B003
Company Equipment ID:	Boiler #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B004
Company Equipment ID:	Boiler #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 16-02294
Facility ID: 1677010757
Effective Date: 8/12/2008

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

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

2. Severability Clause

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

3. General Requirements

- a) 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 re-issuance, or modification.



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

4. Monitoring and Related Record Keeping and Reporting Requirements

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



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

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:



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

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Akron Regional Air Quality Management District.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Akron Regional Air Quality Management District. 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.



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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

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

14. Public Disclosure

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

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

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

16. Fees

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



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17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Akron Regional Air Quality Management District must be notified in writing of any transfer of this permit.

18. Risk Management Plans

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

19. Title IV Provisions

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



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B. Facility-Wide Terms and Conditions



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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) B.3

2. OAC rule 3745-31-28

This facility is a major MACT source as described in section 112 of the Clean Air Act (CAA). As such, the permittee shall comply with the requirements of section 112 of CAA. OAC rule 3745-31-28 applies to a facility where a specific MACT category does not apply to it in section 112(D) of CAA, due to the decision to vacate 40 CFR Part 63, Subpart DDDDD. To comply with the requirements of OAC rule 3745-31-28, the permittee has committed to and shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD.

3. This permit shall become effective only after the permittee has paid this permit's permit-to-install fee.



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C. Emissions Unit Terms and Conditions



1. B003, Unit #1

Operations, Property and/or Equipment Description:

B003 - Unit #1, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, and tire derived fuel (TDF) fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust TDF with wood and avoid PSD review for PM/PM-10, NOx, and CO

- 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) Section d.9 – d.12, e.14.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-09, 3745-17-1(B), 3745-18-06(D), 3745-31-05(D), 3745-31- (13) thru (20), and 40 CFR 60 Subpart Db.</p> <p>When burning natural gas exclusively, particulate emissions (PE) shall not exceed 0.02 lb/MMBtu of actual heat input.</p> <p>When burning a combination of the following fuels: natural gas, TDF and/or wood (as described in term A.II.3), PE shall not exceed 0.08 lb/MMBtu of actual heat input, and 14.4 lbs/hr of PE;</p> <p>nitrogen oxides (NO_x) emissions shall not exceed 0.24 lb/MMBtu of actual heat input, and 43.2 lbs/hr;</p> <p>sulfur dioxide (SO₂) emissions shall not exceed 0.28 lb/MMBtu of actual heat input, and 50.4 lbs/hr;</p> <p>carbon monoxide (CO) emissions shall not exceed 18.0 lbs/hr;</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>organic compounds (OC) emissions shall not exceed 0.36 lb/hr and 1.58 tpy of OC;</p> <p>hydrogen chloride (HCl) emissions shall not exceed 0.09 lb/mmBtu, 16.2 lb/hr and 19.87 tpy of HCl;</p> <p>sulfuric acid mist emissions shall not exceed 0.053 lb/MMBtu of actual heat input, and 9.56 lbs/hr; and,</p> <p>See b.2.d below.</p> <p>20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity).</p> <p>See c.1 below.</p> <p>maximum hourly TDF and wood usage shall be limited by the equation found in section A.II.2.c and a limitation of no more than 3,220 lbs of TDF burned per hour.</p>
(b)	OAC rule 3745-17-07(A)	See b.2.a below.
(c)	OAC rule 3745-17-10(B)	Applicable PE rule when burning natural gas, see A.I.2.a below.
(d)	OAC rule 3745-18-06(D)	Applicable SO ₂ rule when burning natural gas, see A.I.2.a below.
(e)	OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	See b.2.f below
(f)	40 CFR 60, Subpart Db	See b.2.a and c below.
(g)	OAC rule 3745-31-(13) thru (20)	<p>The tons of emissions per rolling 12-month period for emissions units B003 and B004 combined shall not exceed:</p> <p>SO₂ - 135.5 Sulfuric Acid Mist - 23.4.</p> <p>See b.2.e below.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
(h)	OAC rule 3745-31-05(D)	<p>This emissions unit is limited to burning natural gas, TDF, and/or wood (as described in term A.II.3), or a combination of these fuels. The amount of these fuels for emissions units B003 and B004 is limited by the equations found in paragraph A.II.2 and limitations of no more than 8,655 tons of TDF and no more than 106,818 tons of wood burned per rolling 12-month period.</p> <p>36.22 tons of particulate matter* (PM) per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>130.24 tons of NO_x per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>56.29 tons of CO per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>See b.2.b below.</p> <p>The annual capacity factor for natural gas shall be limited to 10 percent (0.10) or less for this emissions unit per rolling 12- month period.</p> <p>*All particulate matter less than 10 microns (PM₁₀) is considered to be PM.</p>

(2) Additional Terms and Conditions

- a. The emissions limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- b. Based upon information submitted by the applicant in their permit application, the annual actual emissions for B003 and B004 based upon years 2001 and 2002 reporting are as follows:
 - PM - 13.76 tpy;
 - NO_x - 91.64 tpy; and
 - CO - 43.10 tpy.



- c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- d. The hourly mass emission limitations (PE, NO_x, SO₂, CO, HCl, and sulfuric acid mist) are based upon maximum values and therefore the permittee does not need to keep hourly records to show compliance with those limitations.
- e. The permittee performed a Best Available Control Technology (BACT) review for SO₂ and sulfuric acid mist. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(13) through(20) above. The following determinations have been made for each pollutant:

SO₂ - Restricting the amount of TDF burned in this emissions unit; and

Sulfuric acid mist - Restricting the amount of TDF burned in this emissions unit.
- f. The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-21-07(B), respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).
- g. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

- (1) The permittee shall not burn any oil in this emissions unit.
- (2) Emission, Natural Gas, TDF/Wood Mix, and Wood Burned Restrictions:

In order to avoid applicability of the federal Prevention of Significant Deterioration and state OAC 3745-31-13 thru 20 rules for PM/PM-10, NO_x, and CO, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B004 combined by the following formula#:



a.

$$\left(\frac{X \text{ lbs of wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.10 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{5500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left(\frac{Y \text{ lbs of TDF / wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.08 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{7161 \text{ BTU}}{\text{lbs of TDF / wood}} \right) +$$

$$\left(\frac{Z \text{ CF natural gas burned}}{\text{rolling 12 - month period}} \right) \left(\frac{84 \text{ lbs of CO}}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left(\frac{112,580 \text{ lbs of CO}}{\text{rolling 12 - month period}} \right)$$

Where:

X is the pounds of pure wood burned per rolling 12 - month period

Y is the pounds of TDF / wood mix burned per rolling 12 - month period

Z is the cubic feet of natural gas burned per rolling 12 - month period

- b. If the rolling 12-month TDF usage is less than 8,655 tons, the rolling 12-month wood usage rate is the lesser of 106,818 tons or the amount determined from the following equation:

$$\text{Tons of wood allowed} = 2,463,636 - 276.5 * \text{actual tons of TDF}$$

- c. If the maximum hourly TDF usage is less than 3,220 lbs, the maximum hourly wood usage rate is determined from the following equation:

$$\text{Pounds of wood allowed} = 916,364 - 276.5 * \text{actual lbs of TDF}$$

note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above PM, NO_x, and CO lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.

In addition, during the first 12 calendar months of operation while burning TDF following the issuance of this permit, the permittee shall not exceed the TDF burned limitations specified in the following table:



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Month	Maximum Allowable TDF Burned (B003 - B004) (tons)
1	1730
1 - 2	1730
1 - 3	3460
1 - 4	3460
1 - 5	5190
1 - 6	5190
1 - 7	6910
1 - 8	6910
1 - 9	8655
1 - 10	8655
1 - 11	8655
1 - 12	8655



After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used TDF limitation shall be based upon a rolling, 12-month summation of TDF burned, in tons.

The permittee has existing natural gas and wood usage records such that the permittee does not need to be limited on a monthly basis for the first year.

(3) Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

(4) ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

(5) Natural Gas Annual Capacity Factor Limitation:

In order to comply with the NO_x lb/MMBTU limitation listed under OAC rule 3745-31-05(A)(5) in term A.I.1, the maximum annual natural gas capacity factor for this emissions unit shall not exceed 10 percent, based upon a rolling, 12-month calculation of the annual capacity factor.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the monthly natural gas capacity factor limitations specified in the following table:



<u>Month</u>	<u>Maximum Allowable</u> <u>Monthly Natural Gas Capacity Factor</u>
1	10 percent
1-2	10 percent
1-3	10 percent
1-4	10 percent
1-5	10 percent
1-6	10 percent
1-7	10 percent
1-8	10 percent
1-9	10 percent
1-10	10 percent
1-11	10 percent
1-12	10 percent

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

b) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall monitor and record the following information on a daily basis:

- a. the tons of wood that was fed to the boiler that day;
- b. the tons of TDF that was fed to the boiler that day;
- c. the natural gas consumption for each day (in million cubic feet); and
- d. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_w + DI_t$$

DI = Total heat input for each day, mmBtu

DI_g = Daily heat input rate from Gas



DI_w = Daily heat input rate from Wood

DI_t = Daily heat input rate from TDF

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:

DI_g = Daily heat input rate from pipeline natural gas, mmBtu/day.

Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.

GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.

10^3 = Conversion of thousand Btu to mmBtu.

When the unit is combusting wood, use the following equation to calculate heat input rate:

$$DI_w = W_w * GCV_w / 10^6$$

Where:

DI_w = Daily heat input rate from wood, mmBtu/day.

V_w = Weight of wood consumed per day, measured in lbs/day

GCV_w = Gross calorific value of wood = 5,500 Btu/lb, or as measured by ASTM D2015 during most recent stack test, Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

When the unit is combusting TDF, use the following equation to calculate heat input rate:

$$DI_t = W_t * GCV_t / 10^6$$

Where:

DI_t = Daily heat input rate from TDF, mmBtu/day.

V_t = Weight of TDF consumed per day, measured in lbs/day



GCV_t = Gross calorific value of TDF = 13,000 Btu/lb, or as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

(2) Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

(3) ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the 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 permittee shall record the following information for each day:

- a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
 - b. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.
- (4) The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
- a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and
 - b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

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.

- (5) The permittee shall maintain monthly records of the following information in emission units B003 - B004:
- a. the pounds of wood burned;
 - b. the pounds of TDF burned;
 - c. the cubic feet of natural gas burned;
 - d. the rolling, 12-month summation of TDF, natural gas and wood used;
 - e. the calculations and the results of the determination that the formulas in term A.II.2 were met;
 - f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the TDF burned ; and



- g. the rolling, 12-month summation of SO₂ and Sulfuric Acid Mist emission limitations.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative TDF burned for each calendar month.

The permittee shall calculate the annual capacity factor as defined in 40 CFR Part 60.41b individually for each fuel burned each calendar quarter pursuant to 40 CFR Part 60.49b.

- (d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- (6) The permittee shall monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in section A.IV.10.
- (7) The permittee shall maintain daily records of the following information for each day:
 - a. the pounds of TDF burned; and
 - b. the pounds of wood burned in conjunction with TDF.
- (8) The permit-to-install (PTI) application for this/these emissions unit(s) B003 – B004 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.



- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Pollutant: Manganese

TLV (mg/m³): 0.2

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.022

MAGLC (ug/m³): 0.714

Pollutant: Acrolein

TLV (mg/m³): 0.23

Maximum Hourly Emission Rate (lbs/hr): 0.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.167

MAGLC (ug/m³): 4.02

Pollutant: Benzene

TLV (mg/m³): 32

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 37.95



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Pollutant: Biphenyl

TLV (mg/m³): 1.3

Maximum Hourly Emission Rate (lbs/hr): 3.31

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 29.97

Pollutant: 1,3-Butadiene

TLV (mg/m³): 4.4

Maximum Hourly Emission Rate (lbs/hr): 1.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 105.13

Pollutant: Ethylbenzene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 10,316.81

Pollutant: Formaldehyde

TLV (mg/m³): 0.27

Maximum Hourly Emission Rate (lbs/hr): 0.97

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.184

MAGLC (ug/m³): 6.45



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Pollutant: Naphthalene

TLV (mg/m³): 52

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 1,245.77

Pollutant: Phenol

TLV (mg/m³): 19

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.075

MAGLC (ug/m³): 457.29

Pollutant: Styrene

TLV (mg/m³): 213

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 2,024.49

Pollutant: Toluene

TLV (mg/m³): 188

Maximum Hourly Emission Rate (lbs/hr): 0.20

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.038

MAGLC (ug/m³): 4,476.68



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Pollutant: Sulfuric Acid Mist

TLV (mg/m³): 1

Maximum Hourly Emission Rate (lbs/hr): 19.11

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3.607

MAGLC (ug/m³): 23.81

Pollutant: Hydrogen Chloride

TLV (mg/m³): 5

Maximum Hourly Emission Rate (lbs/hr): 0.86

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.161

MAGLC (ug/m³): 130.60

Pollutant: Lead

TLV (mg/m³): 0.05

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.01

MAGLC (ug/m³): 1.19

The permittee, has demonstrated that emissions, from emissions unit(s) B003 – B004, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:



- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air



Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date,

commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

- (2) The permittee shall submit deviation (excursion) reports which identify:
- a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i);
 - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit; and
 - c. all periods in which the TDF usage exceeded 11% TDF by weight and the actual composition for that time period;
- (3) The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.



- (4) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative amounts of TDF and/or wood burned and PM, NO_x, and CO emission levels (compliance with PM, NO_x, and CO emissions levels are demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B004.
- (5) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations for SO₂ and sulfuric acid mist.
- (6) The permittee shall submit deviation (excursion) reports that identify all exceedances of the natural gas annual capacity factor limitation and, for the first 12 calendar months of operation following the issuance of the permit, all exceedances of the monthly allowable natural gas capacity factor.
- (7) The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
- (8) The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.
- (9) The permittee shall submit an initial notification of startup. This notification shall include:
 - a. the date of initial startup;
 - b. the design heat input capacity of the facility and an identification of the fuels to be combusted in the affected facility; and
 - c. the annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.
- (10) The permittee shall submit for approval within 360 days of startup a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxide emission limitations. The plan shall:
 - a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxide emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);
 - b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and
 - c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be



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employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.

- (11) The permittee shall submit excess emission reports for any calculated exceedance of the nitrogen oxide emission limitation. All reports shall be submitted by the 30th day following the end of the 6 month reporting period.
- (12) Pursuant to the NSPS, section 60.7, the source owner/operator is hereby advised of the requirement to submit a written report to the administrator (not more than 60 days or as soon as practicable before the change is commenced) the following:
 - a. information describing the precise nature of the change;
 - b. present and proposed emissions control systems;
 - c. productive capacity of the facility before and after the change; and
 - d. expected completion date of the change.

The administrator may request additional relevant information subsequent to this notice.

- (13) Report required in term A.IV.12 is to be sent to:

Ohio Environmental Protection Agency

DAPC - Permit Management Unit

P. O. Box 163669

Columbus, Ohio 43216-3669

and

Akron Air Pollution Control

146 South High Street

Room 904

Akron, Ohio 44308

- (14) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.



f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months after start-up
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate, nitrogen oxide, sulfur dioxide, carbon monoxide, organic compounds, hydrogen chloride and sulfuric acid mist.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - for PE, Methods 1-5 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);
 - for NO_x, Methods 1-4 and 7E of 40 CFR Part 60, Appendix A (while firing only wood);
 - for SO₂, Methods 1-4 and 6C of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);
 - for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A (while firing only wood);
 - for OC, Methods 1-4 and 25A of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);
 - for HCl, Methods 1-4 and 26 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix); and
 - for H₂SO₄ mist, Methods 1-4 and 8 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix).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 appropriate Ohio EPA District Office or local air agency.
- (2) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).
- (3) Personnel from the appropriate Ohio EPA District Office or local air agency 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.

- (4) 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.
- (5) The permittee shall demonstrate the maximum heat input capacity of the steam generating unit by operating it as maximum capacity for 24 hours. The permittee shall determine the maximum heat input capacity using the production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. Subsequent demonstrations may be required by the Administrator at any other shall be used to determine the capacity utilization rate for the emissions unit. Otherwise, the maximum heat input capacity provided by the manufacturer is used.
- (6) Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:

0.02 lb of PE/MMBTU of actual heat input, when combusting only natural gas

Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs of particulate per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb of particulate per mmBtu.
 - b. Emission Limitation:

0.08 lb of PE/MMBTU of actual heat input

14.4 lbs/hr of PE

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 5, 40 CFR Part 60, Appendix A.
 - c. Emission Limitation:

0.24 lb of NO_x/MMBTU of actual heat input

43.2 lbs/hr of NO_x



Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 7E, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

0.28 lb of SO₂ / MMBTU of actual heat input

50.4 lbs/hr of SO₂

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 6C, 40 CFR Part 60, Appendix A.

e. Emission Limitation:

18.0 lbs/hr of CO

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 10, 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.36 lbs/hr of OC

1.58 tpy of OC

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 25A, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

0.09 lb HCl/mmBtu

16.2 lbs/hr of HCl

19.87 tpy of HCl

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

To demonstrate compliance with the annual emission limitation, multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.



h. Emission Limitation:

0.053 lb of sulfuric acid mist/MMBTU

9.56 lbs/hr of sulfuric acid mist

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 8, 40 CFR Part 60, Appendix A.

i. Emission Limitation:

20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

135.5 tons per rolling 12-month period of SO₂ from B003 and Boo4 combined

Applicable Compliance Method:

Annual SO₂ emissions = SO₂ emissions from TDF + SO₂ emissions from wood

SO₂ emissions from TDF = tons of TDF burned * 26 mmBtu/ton * 1.17 lb/mmBtu * 1 ton/2,000 lbs

SO₂ emissions from wood = tons of wood burned * 11 mmBtu/ton * 0.01 lb/mmBtu * 1 tons/2,000 lbs

The mmBtu heat content and emission rates in lb/mmBtu in the above equations should be adjusted if data obtained during emission testing warrants a change.

k. Emission Limitation:

23.4 tons per rolling 12-month period of sulfuric acid mist from B003 and Boo4 combined

Applicable Compliance Method:

Multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.



I. Emission Limitation:

36.22 tpy of PM for B003 and B004 combined

130.24 tpy of NO_x for B003 and B004 combined

56.29 tpy of CO for B003 and B004 combined

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section III.5 of these T&Cs.

m. Emission Limitation:

annual capacity factor for natural gas shall be limited to 10 percent (0.10)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section III.6 of these T&Cs.

g) Miscellaneous Requirements

- (1) The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements for this emissions unit contained in permits to install 16-037, 16-294, and 16-02187 issued on March 17, 1976, July 11, 1984, and March 26, 2002 respectively.
- (2) The terms on condition in this administrative modification shall supersede all the air pollution control requirements for this emissions unit contained in this permit to install as was originally issued final on December 16, 2003.



2. B004, Unit #2

Operations, Property and/or Equipment Description:

B004 - Unit #2, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, and tire derived fuel (TDF) fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust TDF with wood and avoid PSD review for PM/PM-10, NOx, and CO

- 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) Section d.9 – d.12, e.14.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-09, 3745-17-1(B), 3745-18-06(D), 3745-31-05(D), 3745-31- (13) thru (20), and 40 CFR 60 Subpart Db.</p> <p>When burning natural gas exclusively, particulate emissions (PE) shall not exceed 0.02 lb/MMBtu of actual heat input.</p> <p>When burning a combination of the following fuels: natural gas, TDF and/or wood (as described in term A.II.3), PE shall not exceed 0.08 lb/MMBtu of actual heat input, and 14.4 lbs/hr of PE;</p> <p>nitrogen oxides (NO_x) emissions shall not exceed 0.24 lb/MMBtu of actual heat input, and 43.2 lbs/hr;</p> <p>sulfur dioxide (SO₂) emissions shall not exceed 0.28 lb/MMBtu of actual heat input, and 50.4 lbs/hr;</p> <p>carbon monoxide (CO) emissions shall not exceed 18.0 lbs/hr;</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>organic compounds (OC) emissions shall not exceed 0.36 lb/hr and 1.58 tpy of OC;</p> <p>hydrogen chloride (HCl) emissions shall not exceed 0.09 lb/mmBtu, 16.2 lb/hr and 19.87 tpy of HCl;</p> <p>sulfuric acid mist emissions shall not exceed 0.053 lb/MMBtu of actual heat input, and 9.56 lbs/hr; and,</p> <p>See b.2.d below.</p> <p>20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity).</p> <p>See c.1 below.</p> <p>maximum hourly TDF and wood usage shall be limited by the equation found in section A.II.2.c and a limitation of no more than 3,220 lbs of TDF burned per hour.</p>
(b)	OAC rule 3745-17-07(A)	See b.2.a below.
(c)	OAC rule 3745-17-10(B)	Applicable PE rule when burning natural gas, see A.I.2.a below.
(d)	OAC rule 3745-18-06(D)	Applicable SO ₂ rule when burning natural gas, see A.I2.a below.
(e)	OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	See b.2.f below
(f)	40 CFR 60, Subpart Db	See b.2.a and c below.
(g)	OAC rule 3745-31-(13) thru (20)	<p>The tons of emissions per rolling 12-month period for emissions units B003 and B004 combined shall not exceed:</p> <p>SO₂ - 135.5 Sulfuric Acid Mist - 23.4.</p> <p>See b.2.e below.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
(h)	OAC rule 3745-31-05(D)	<p>This emissions unit is limited to burning natural gas, TDF, and/or wood (as described in term A.II.3), or a combination of these fuels. The amount of these fuels for emissions units B003 and B004 is limited by the equations found in paragraph A.II.2 and limitations of no more than 8,655 tons of TDF and no more than 106,818 tons of wood burned per rolling 12-month period.</p> <p>36.22 tons of particulate matter* (PM) per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>130.24 tons of NO_x per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>56.29 tons of CO per rolling 12-month period for emissions units B003 and B004 combined.</p> <p>See b.2.b below.</p> <p>The annual capacity factor for natural gas shall be limited to 10 percent (0.10) or less for this emissions unit per rolling 12-month period.</p> <p>*All particulate matter less than 10 microns (PM₁₀) is considered to be PM.</p>

(2) Additional Terms and Conditions

- a. The emissions limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- b. Based upon information submitted by the applicant in their permit application, the annual actual emissions for B003 and B004 based upon years 2001 and 2002 reporting are as follows:
 - PM - 13.76 tpy;
 - NO_x - 91.64 tpy; and
 - CO - 43.10 tpy.



- c. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- d. The hourly mass emission limitations (PE, NO_x, SO₂, CO, HCl, and sulfuric acid mist) are based upon maximum values and therefore the permittee does not need to keep hourly records to show compliance with those limitations.
- e. The permittee performed a Best Available Control Technology (BACT) review for SO₂ and sulfuric acid mist. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-(13) through(20) above. The following determinations have been made for each pollutant:
 - SO₂ - Restricting the amount of TDF burned in this emissions unit; and
 - Sulfuric acid mist - Restricting the amount of TDF burned in this emissions unit.
- f. The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-21-07(B), respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).
- g. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

d) Operational Restrictions

- (2) The permittee shall not burn any oil in this emissions unit.
- (3) Emission, Natural Gas, TDF/Wood Mix, and Wood Burned Restrictions:

In order to avoid applicability of the federal Prevention of Significant Deterioration and state OAC 3745-31-13 thru 20 rules for PM/PM-10, NO_x, and CO, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B004 combined by the following formula#:



a.

$$\left(\frac{X \text{ lbs of wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.10 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{5500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left(\frac{Y \text{ lbs of TDF / wood burned}}{\text{rolling 12 - month period}} \right) \left(\frac{0.08 \text{ lb of CO}}{10^6 \text{ BTU}} \right) \left(\frac{7161 \text{ BTU}}{\text{lbs of TDF / wood}} \right) +$$

$$\left(\frac{Z \text{ CF natural gas burned}}{\text{rolling 12 - month period}} \right) \left(\frac{84 \text{ lbs of CO}}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left(\frac{112,580 \text{ lbs of CO}}{\text{rolling 12 - month period}} \right)$$

Where:

X is the pounds of pure wood burned per rolling 12 - month period

Y is the pounds of TDF / wood mix burned per rolling 12 - month period

Z is the cubic feet of natural gas burned per rolling 12 - month period

b. If the rolling 12-month TDF usage is less than 8,655 tons, the rolling 12-month wood usage rate is the lesser of 106,818 tons or the amount determined from the following equation:

$$\text{Tons of wood allowed} = 2,463,636 - 276.5 * \text{actual tons of TDF}$$

c. If the maximum hourly TDF usage is less than 3,220 lbs, the maximum hourly wood usage rate is determined from the following equation:

$$\text{Pounds of wood allowed} = 916,364 - 276.5 * \text{actual lbs of TDF}$$

note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above PM, NO_x, and CO lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and the permittee.

In addition, during the first 12 calendar months of operation while burning TDF following the issuance of this permit, the permittee shall not exceed the TDF burned limitations specified in the following table:



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Month	Maximum Allowable TDF Burned (B003 - B004) (tons)
1	1730
1 - 2	1730
1 - 3	3460
1 - 4	3460
1 - 5	5190
1 - 6	5190
1 - 7	6910
1 - 8	6910
1 - 9	8655
1 - 10	8655
1 - 11	8655
1 - 12	8655



After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used TDF limitation shall be based upon a rolling, 12-month summation of TDF burned, in tons.

The permittee has existing natural gas and wood usage records such that the permittee does not need to be limited on a monthly basis for the first year.

(4) Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

(5) ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this 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.

The operation of the 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 US EPA-approved methods and procedures. The results of any required emission 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 possible violation of the mass emission limitations.

(6) Natural Gas Annual Capacity Factor Limitation:

In order to comply with the NO_x lb/MMBTU limitation listed under OAC rule 3745-31-05(A)(5) in term A.I.1, the maximum annual natural gas capacity factor for this emissions unit shall not exceed 10 percent, based upon a rolling, 12-month calculation of the annual capacity factor.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the monthly natural gas capacity factor limitations specified in the following table:



<u>Month</u>	<u>Maximum Allowable Monthly Natural Gas Capacity Factor</u>
1	10 percent
1-2	10 percent
1-3	10 percent
1-4	10 percent
1-5	10 percent
1-6	10 percent
1-7	10 percent
1-8	10 percent
1-9	10 percent
1-10	10 percent
1-11	10 percent
1-12	10 percent

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

h) Monitoring and/or Recordkeeping Requirements

(12) The permittee shall monitor and record the following information on a daily basis:

- a. the tons of wood that was fed to the boiler that day;
- b. the tons of TDF that was fed to the boiler that day;
- c. the natural gas consumption for each day (in million cubic feet); and
- d. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_w + DI_t$$

DI = Total heat input for each day, mmBtu

DI_g = Daily heat input rate from Gas



DI_w = Daily heat input rate from Wood

DI_t = Daily heat input rate from TDF

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:

DI_g = Daily heat input rate from pipeline natural gas, mmBtu/day.

Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.

GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.

10^3 = Conversion of thousand Btu to mmBtu.

When the unit is combusting wood, use the following equation to calculate heat input rate:

$$DI_w = W_w * GCV_w / 10^6$$

Where:

DI_w = Daily heat input rate from wood, mmBtu/day.

W_w = Weight of wood consumed per day, measured in lbs/day

GCV_w = Gross calorific value of wood = 5,500 Btu/lb, or as measured by ASTM D2015 during most recent stack test, Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

When the unit is combusting TDF, use the following equation to calculate heat input rate:

$$DI_t = W_t * GCV_t / 10^6$$

Where:

DI_t = Daily heat input rate from TDF, mmBtu/day.



- V_t = Weight of TDF consumed per day, measured in lbs/day
- GCV_t = Gross calorific value of TDF = 13,000 Btu/lb, or as measured by ASTM E711 during most recent stack test, Btu/unit mass, in lbs.
- 10^6 = Conversion of Btu to mmBtu.

(13) Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

(14) ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the 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 permittee shall record the following information for each day:

- a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
 - b. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.
- (15) The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
- a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and
 - b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

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.

- (16) The permittee shall maintain monthly records of the following information in emission units B003 - B004:
- a. the pounds of wood burned;
 - b. the pounds of TDF burned;
 - c. the cubic feet of natural gas burned;
 - d. the rolling, 12-month summation of TDF, natural gas and wood used;
 - e. the calculations and the results of the determination that the formulas in term A.II.2 were met;
 - f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the TDF burned ; and



- g. the rolling, 12-month summation of SO₂ and Sulfuric Acid Mist emission limitations.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative TDF burned for each calendar month.

The permittee shall calculate the annual capacity factor as defined in 40 CFR Part 60.41b individually for each fuel burned each calendar quarter pursuant to 40 CFR Part 60.49b.

- (d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- (17) The permittee shall monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in section A.IV.10.
- (18) The permittee shall maintain daily records of the following information for each day:
 - a. the pounds of TDF burned; and
 - b. the pounds of wood burned in conjunction with TDF.
- (19) The permit-to-install (PTI) application for this/these emissions unit(s) B003 – B004 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.



- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Pollutant: Manganese

TLV (mg/m³): 0.2

Maximum Hourly Emission Rate (lbs/hr): 0.12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.022

MAGLC (ug/m³): 0.714

Pollutant: Acrolein

TLV (mg/m³): 0.23

Maximum Hourly Emission Rate (lbs/hr): 0.89

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.167

MAGLC (ug/m³): 4.02

Pollutant: Benzene

TLV (mg/m³): 32

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 37.95



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Pollutant: Biphenyl

TLV (mg/m³): 1.3

Maximum Hourly Emission Rate (lbs/hr): 3.31

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 29.97

Pollutant: 1,3-Butadiene

TLV (mg/m³): 4.4

Maximum Hourly Emission Rate (lbs/hr): 1.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.264

MAGLC (ug/m³): 105.13

Pollutant: Ethylbenzene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 10,316.81

Pollutant: Formaldehyde

TLV (mg/m³): 0.27

Maximum Hourly Emission Rate (lbs/hr): 0.97

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.184

MAGLC (ug/m³): 6.45



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Pollutant: Naphthalene

TLV (mg/m³): 52

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 1,245.77

Pollutant: Phenol

TLV (mg/m³): 19

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.075

MAGLC (ug/m³): 457.29

Pollutant: Styrene

TLV (mg/m³): 213

Maximum Hourly Emission Rate (lbs/hr): 0.37

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.070

MAGLC (ug/m³): 2,024.49

Pollutant: Toluene

TLV (mg/m³): 188

Maximum Hourly Emission Rate (lbs/hr): 0.20

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.038

MAGLC (ug/m³): 4,476.68

Pollutant: Sulfuric Acid Mist

TLV (mg/m³): 1

Maximum Hourly Emission Rate (lbs/hr): 19.11



Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.607

MAGLC (ug/m3): 23.81

Pollutant: Hydrogen Chloride

TLV (mg/m3): 5

Maximum Hourly Emission Rate (lbs/hr): 0.86

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.161

MAGLC (ug/m3): 130.60

Pollutant: Lead

TLV (mg/m3): 0.05

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.01

MAGLC (ug/m3): 1.19

The permittee, has demonstrated that emissions, from emissions unit(s) B003 – B004, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (20) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).



If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (21) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

- a. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- b. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- c. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (22) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

i) Reporting Requirements

- (15) The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date,



commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

- (16) The permittee shall submit deviation (excursion) reports which identify:
- a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i);
 - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit; and
 - c. all periods in which the TDF usage exceeded 11% TDF by weight and the actual composition for that time period;
- (17) The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.
- (18) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative amounts of TDF and/or wood burned and PM, NO_x, and CO emission levels (compliance with PM, NO_x, and CO emissions levels are demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B004.
- (19) The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations for SO₂ and sulfuric acid mist.



- (20) The permittee shall submit deviation (excursion) reports that identify all exceedances of the natural gas annual capacity factor limitation and, for the first 12 calendar months of operation following the issuance of the permit, all exceedances of the monthly allowable natural gas capacity factor.
- (21) The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
- (22) The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.
- (23) The permittee shall submit an initial notification of startup. This notification shall include:
 - a. the date of initial startup;
 - b. the design heat input capacity of the facility and an identification of the fuels to be combusted in the affected facility; and
 - c. the annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.
- (24) The permittee shall submit for approval within 360 days of startup a plan that identifies the operating conditions to be monitored to demonstrate compliance with the nitrogen oxide emission limitations. The plan shall:
 - a. identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxide emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);
 - b. include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions; and
 - c. identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operating of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee.
- (25) The permittee shall submit excess emission reports for any calculated exceedance of the nitrogen oxide emission limitation. All reports shall be submitted by the 30th day following the end of the 6 month reporting period.



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- (26) Pursuant to the NSPS, section 60.7, the source owner/operator is hereby advised of the requirement to submit a written report to the administrator (not more than 60 days or as soon as practicable before the change is commenced) the following:
- a. information describing the precise nature of the change;
 - b. present and proposed emissions control systems;
 - c. productive capacity of the facility before and after the change; and
 - d. expected completion date of the change.

The administrator may request additional relevant information subsequent to this notice.

- (27) Report required in term A.IV.12 is to be sent to:

Ohio Environmental Protection Agency

DAPC - Permit Management Unit

P. O. Box 163669

Columbus, Ohio 43216-3669

and

Akron Air Pollution Control

146 South High Street

Room 904

Akron, Ohio 44308

- (28) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

j) Testing Requirements

- (7) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 3 months after start-up
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate, nitrogen oxide, sulfur dioxide, carbon monoxide, organic compounds, hydrogen chloride and sulfuric acid mist.



- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
- for PE, Methods 1-5 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);
 - for NO_x, Methods 1-4 and 7E of 40 CFR Part 60, Appendix A (while firing only wood);
 - for SO₂, Methods 1-4 and 6C of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);
 - for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A (while firing only wood);
 - for OC, Methods 1-4 and 25A of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix);
 - for HCl, Methods 1-4 and 26 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix); and
 - for H₂SO₄ mist, Methods 1-4 and 8 of 40 CFR Part 60, Appendix A (while firing 11%TDF and wood mix).
- 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 appropriate Ohio EPA District Office or local air agency.
- (8) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).
- (9) Personnel from the appropriate Ohio EPA District Office or local air agency 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.
- (10) 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.



- (11) The permittee shall demonstrate the maximum heat input capacity of the steam generating unit by operating it as maximum capacity for 24 hours. The permittee shall determine the maximum heat input capacity using the heat loss method described in section 5 and 7.3 of the ASME Power Test Codes 4.1. This demonstration of maximum heat input capacity shall be made during the initial performance test. It shall be made within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the emissions unit is less than that stated by the manufacturer of the emissions unit, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the emissions unit. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

0.02 lb of PE/MMBTU of actual heat input, when combusting only natural gas

Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs of particulate per 10^6 scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb of particulate per mmBtu.

b. Emission Limitation:

0.08 lb of PE/MMBTU of actual heat input

14.4 lbs/hr of PE

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 5, 40 CFR Part 60, Appendix A.

c. Emission Limitation:

0.24 lb of NO_x/MMBTU of actual heat input

43.2 lbs/hr of NO_x

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 7E, 40 CFR Part 60, Appendix A.

d. Emission Limitation:

0.28 lb of SO₂ / MMBTU of actual heat input



50.4 lbs/hr of SO₂

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 6C, 40 CFR Part 60, Appendix A.

e. Emission Limitation:

18.0 lbs/hr of CO

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 10, 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.36 lbs/hr of OC

1.58 tpy of OC

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 25A, 40 CFR Part 60, Appendix A.

g. Emission Limitation:

0.09 lb HCl/mmBtu

16.2 lbs/hr of HCl

19.87 tpy of HCl

Applicable Compliance Method:

If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 26, 40 CFR Part 60, Appendix A.

To demonstrate compliance with the annual emission limitation, multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.

h. Emission Limitation:

0.053 lb of sulfuric acid mist/MMBTU

9.56 lbs/hr of sulfuric acid mist

Applicable Compliance Method:



If required, compliance shall be determined by emission testing in accordance with Methods 1-4 and 8, 40 CFR Part 60, Appendix A.

i. Emission Limitation:

20% opacity as a 6-minute average, (except for one 6-minute period per hour of not more than 27% opacity)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

135.5 tons per rolling 12-month period of SO₂ from B003 and Boo4 combined

Applicable Compliance Method:

Annual SO₂ emissions = SO₂ emissions from TDF + SO₂ emissions from wood

SO₂ emissions from TDF = tons of TDF burned * 26 mmBtu/ton * 1.17 lb/mmBtu * 1 ton/2,000 lbs

SO₂ emissions from wood = tons of wood burned * 11 mmBtu/ton * 0.01 lb/mmBtu * 1 tons/2,000 lbs

The mmBtu heat content and emission rates in lb/mmBtu in the above equations should be adjusted if data obtained during emission testing warrants a change.

k. Emission Limitation:

23.4 tons per rolling 12-month period of sulfuric acid mist from B003 and Boo4 combined

Applicable Compliance Method:

Multiply the result of most recent stack test, in pounds/MMBTU, by the rated boiler capacity of 180 MMBTU/hr, by the maximum operating hours of 8760 hours/year and divide by 2000 to convert the result to tons.

l. Emission Limitation:

36.22 tpy of PM for B003 and BOO4 combined

130.24 tpy of NO_x for B003 and B004 combined

56.29 tpy of CO for B003 and B004 combined

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section III.5 of these T&Cs.



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m. Emission Limitation:

annual capacity factor for natural gas shall be limited to 10 percent (0.10)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitations based upon the record keeping requirements of section III.6 of these T&Cs.

k) Miscellaneous Requirements

- (3) The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements for this emissions unit contained in permits to install 16-037, 16-294, and 16-02187 issued on March 17, 1976, July 11, 1984, and March 26, 2002 respectively.
- (4) The terms on condition in this administrative modification shall supersede all the air pollution control requirements for this emissions unit contained in this permit to install as was originally issued final on December 16, 2003.