



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
AUGLAIZE COUNTY**

**CERTIFIED MAIL**

Street Address:

50 West Town Street, Suite 700

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 03-17366**

**Fac ID: 0306020008**

**DATE: 6/12/2008**

G. A. Wintzer + Son Co.  
Carl Wintzer  
PO Box 406 5 N. Blackhoof Street  
Wapakoneta, OH 45895

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

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

NWDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 6/12/2008  
Effective Date: 6/12/2008**

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**FINAL PERMIT TO INSTALL 03-17366**

Application Number: 03-17366  
Facility ID: 0306020008  
Permit Fee: **\$1200**  
Name of Facility: G. A. Wintzer + Son Co.  
Person to Contact: Carl Wintzer  
Address: PO Box 406 5 N. Blackhoof Street  
Wapakoneta, OH 45895

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**12279 S Dixie Hwy  
Wapakoneta, Ohio**

Description of proposed emissions unit(s):  
**87.5 mm BTU/hr boiler.**

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

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Chris Korleski  
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 (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 B.9 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency 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.
  - iv. If this permit is for an emissions unit located at a Title V facility, then 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.

## 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 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.

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## **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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

## **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 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. 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 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 ninety (90) 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.

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**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.

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### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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

### **1. Compliance Requirements**

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.

### **2. 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 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 (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.)

### **3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder.

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The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing 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 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)**

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.

**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**

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If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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., postmarked), 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 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>
NOx	246.0 (B001, B002, & B003)
SO2	246.0 (B001, B002, & B003)
PM10	19.16 (B003)
CO	32.20 (B003)

**G. A. Wintzer + Son Co.**  
**PTI Application: 03-17366**  
**Issued: 6/12/2008**

**Facility ID: 030602008**

**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

Emissions Unit ID: B001

**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.

**Operations, Property, and/or Equipment -(B001) - Boiler No. 1; 30.0 mmBtu/hr boiler - No. 2 fuel oil, No. 6 fuel oil, biofuel (organic oils and greases) and/or natural gas fired.**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	246.0 tons nitrogen oxides (NOx) per rolling, 12-month period for emissions units B001, B002, and B003, combined (See Section A.I.2.a.)  246.0 tons sulfur dioxide (SO2) per rolling, 12-month period for emissions units B001, B002, and B003, combined (See Section A.I.2.a.)
OAC rule 3745-31-05(A)(3)	See Section A.I.2.c.
OAC rule 3745-18-06	See Section A.I.2.d.
OAC rule 3745-17-10(C)(2)	0.30 lb particulate emissions (PE)/mmBtu of actual heat input (for the burning of No. 6 fuel oil, or any combination of No. 6 fuel oil and the following fuels: No. 2 fuel oil, natural gas or biofuel (organic oils and greases - see A.I.2.c))
OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input (for the burning of natural gas, No. 2 fuel oil; or any combination of these fuels)
OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a This permit establishes the following federally enforceable emission limitations for purposes of establishing the facility as a minor source for attainment New Source Review:

- i. 246.0 tons NOx per rolling, 12-month period from emissions units B001, B002, and B003, combined
- ii. 246.0 tons SO2 per rolling, 12-month period from emissions units B001, B002, and B003, combined

Emissions Unit ID: B001

The emission limitations are based on fuel usage restrictions (see A.II.3) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability.

- 2.b** The emission limitation of 0.30 lb PE/mmBtu is based on curve P-2 of figure I of OAC rule 3745-17-10 and a total heat input capacity of 102 mmBtu/hr (for emissions units B001 and B002, combined). Emissions units B001 and B002 are considered either physically or operationally united.
- 2.c** Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) are not applicable to this emissions unit. Emissions unit B001 was installed prior to January 1974 and is not undergoing a physical change or change in the method of operation that would be considered a modification. Emission unit B001 is included in this permit to install as part of a request to establish federally enforceable emission limitations for NO<sub>x</sub> and SO<sub>2</sub> from emissions units B001, B002, and B003, combined (See Section A.I.2.a)
- 2.d** In accordance with OAC rule 3745-18-06(D), the maximum emissions of SO<sub>2</sub> shall not exceed 1.6 lbs per mmBtu actual heat input, when firing oil (#2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils)
- In accordance with OAC rule 3745-18-06(A), the emissions unit is exempt during any calendar day in which natural gas/propane is the only fuel burned.
- 2.e** The permittee shall submit a written site-specific testing and monitoring plan to address the combustion of residual oils and mixtures of residual oils in emissions units B001, B002, and B003. The plan shall include fuel sampling procedures, testing, analyses, etc. for purposes of obtaining sulfur and heat content information to used to demonstrate compliance with the following requirements:
- i. for emissions units B001 and B002, emissions of SO<sub>2</sub> shall not exceed 1.6 lbs per mmBtu heat input (see A.I.2.d and A.II.3.b);
  - ii. for emissions unit B003, the sulfur content of any oil (#2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils) shall not exceed 0.5 weight percent and 0.56 lb SO<sub>2</sub>/mmBtu heat input

The site-specific testing and monitoring plan must be approved by the Ohio EPA prior to operation of emissions units B001, B002, and B003 under the provisions of this permit. It should be noted that this permit involves a modification of emission units B001 and B002 which are existing emission units and the above requirement for an approved testing and monitoring plan does not preclude operation of these emissions units upon issuance of this permit. An approved testing and monitoring plan is required prior to these existing emission units

Emissions Unit ID: B001

operating under the provisions (i.e. modifications) allowed by this permit.

**II. Operational Restrictions**

1. The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in this permit.
2. The permittee shall only burn natural gas, propane, #2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils in this emissions unit:
  - a. The #2 fuel oil combusted in this emissions unit shall only be fuel oil number 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils".
  - b. Residual oils combusted in this emissions unit shall only be residual oil as defined in OAC rule 3745-110-01(B) which reads ...crude oil, fuel oil that does not comply with the specifications under the definition of "distillate oil," and all fuel oil numbers four, five, or six as defined by ASTM D396-05, "Standard Specification for Fuel Oils."

It should be noted that some of the residual oils used will involve various organic oils and greases produced on site from the rendering process that meet the standards for yellow grease as defined in the Fats and Proteins Research Foundation, Inc. publication #306, "Animal Fats and Recycled Cooking Oils - Alternatives as Burner Fuels" from March 2001.

3. The maximum rolling, 12-month quantity of fuel burned in emissions units B001, B002, and B003, combined, shall be limited by the following equation. The criteria of the limiting equation must be met for both NO<sub>x</sub> and SO<sub>2</sub> (meaning the calculated results for NO<sub>x</sub> must not exceed 246.0 tons and the results for SO<sub>2</sub> must not exceed 246.0 tons)

$$\sum_{M=1}^{12} \left[ \sum_m (U_m)(C_m) + \sum_n (U_n)(C_n) \right] / 2000 \leq 246.0$$

where:

M = the increment of the rolling, 12-month period;

m = the increment of the heat input during the period for emissions units B001 &amp; B002;

n = the increment of the heat input during the period for emissions unit B003;

U<sub>m</sub> = total heat input for B001 & B002, in mmBtu, for each individual fuel type: natural gas, propane, #2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;U<sub>n</sub> = total heat input for B003, in mmBtu, for each individual fuel type: natural gas, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

**Issued: 6/12/2008**

$C_m$  = emission factor for individual boiler fuels for B001 & B002:

$C_n$  = emission factor for individual boiler fuels for B003:

For emissions units B001 and B002,  $C_m$  equals the following:

- a. 0.37 lb NO<sub>x</sub>/mmBtu (all oils)  
0.10 lb NO<sub>x</sub>/mmBtu of natural gas/propane
- b. 1.60 lb SO<sub>2</sub>/mmBtu (all oils)  
0.001 lb SO<sub>2</sub>/mmBtu of natural gas/propane

For emission unit B003,  $C_n$  equals the following:

- c. 0.22 lb NO<sub>x</sub>/mmBtu (all oils)  
0.05 lb NO<sub>x</sub>/mmBtu of natural gas
- d. 0.56 lb SO<sub>2</sub>/mmBtu (all oils)  
0.001 lb SO<sub>2</sub>/mmBtu of natural gas

Emission factors other than those indicated above may be used with prior approval from the Ohio EPA, Northwest District Office.

Emissions units B001 and B002 have been in operation for greater than 12 months and as such the permittee has existing information to generate records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall comply with the following monitoring and record keeping when burning only fuel oils in this emissions unit:
  - a. When burning only #2 fuel oil in this emissions unit, the permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in Section A.II.2. Records of fuel supplier certification shall include the following information:
    - i. the name of the oil supplier;
    - ii. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in A.II.1 above; and
    - iii. the sulfur content of the oil in weight %.

Emissions Unit ID: B001

- b. When burning residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils, the permittee shall comply with all requirements of the written site-specific testing and monitoring plan (see A.1.2.e) as approved by the Ohio EPA.
2. For each day during which the permittee burns a fuel other than natural gas, propane, #2 fuel oil, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils, the permittee shall maintain a record of the type and quantity of fuel burned in this emission unit.
3. The permittee shall perform daily 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. The permittee shall maintain monthly records of the following information for emissions units B001, B002, and B003:
  - a. the heat input for each individual fuel burned in emissions units B001 and B002 combined, in mmBtu;
  - b. the heat input of each individual fuel burned in emissions unit B003, in mmBtu;
  - c. the total NO<sub>x</sub> emissions from each fuel burned in emissions units B001 & B002, calculated as follows:

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$$E_m = \square \square U_m \square \square C_m \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

$E_m$  = NOx emissions from an individual fuel, in tons

$U_m$  = total heat input (mmBtu) of the individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel

$C_m$  = emission factor for the individual fuel in lbs NOx/mmBtu (see A.II.3.a & b)

- d. The total NOx emission rate of all fuels burned in emissions units B001 and B002, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + \dots + E_m$$

where:

$E_M$  = Monthly NOx emissions, in tons/month; and,

$E_m$  = NOx emissions from each individual fuel, in tons (Section A.III.4.c).

- e. the total NOx emissions from each fuel burned in emissions unit B003, calculated as follows:

$$E_n = \square \square U_n \square \square C_n \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

$E_n$  = NOx emissions from an individual fuel, in tons

$U_n$  = total heat input for B003, in mmBtu, for each individual fuel type: natural gas, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

$C_n$  = emission factor for the individual fuel in lbs NOx/mmBtu (see A.II.3.c & d)

- f. The total NOx emission rate of all fuels burned in emissions unit B003, in tons/month, calculated as follows:

$$E_N = E_1 + E_2 + E_3 + \dots + E_n$$

where:

$E_N$  = Monthly NOx emissions, in tons/month; and,

$E_n$  = NOx emissions from each individual fuel burned in emissions unit B003 (Section A.III.4.e).

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- g. The total NO<sub>x</sub> emission rate of all fuels burned in emissions units B001, B002, and B003, combined, in tons/month, calculated as follows:

$$E_{MN} = E_M + E_N$$

where:

$E_{MN}$  = Monthly NO<sub>x</sub> emissions in tons/month; and,

$E_M$  = total NO<sub>x</sub> emissions from emissions units B001 and B002 (Section A.III.4.d).

$E_N$  = total NO<sub>x</sub> emissions from emissions unit B003 (Section A.III.4.f).

- h. The rolling, 12-month NO<sub>x</sub> emission rate of all fuels burned in emissions units B001, B002, and B003, combined, calculated as follows:

$$E_T = E_{MN1} + E_{MN2} + E_{MN3} + \dots + E_{MN12}$$

where:

$E_T$  = Annual NO<sub>x</sub> emissions (tons) as summed from the previous 12 months of monthly NO<sub>x</sub> emissions;

$E_{MN}$  = Monthly NO<sub>x</sub> emissions in tons/month (Section A.III.4.g)

- i. The total SO<sub>2</sub> emissions from each fuel burned in emissions units B001 & B002, calculated as follows:

$$E_s = \square \square U_s \square \square C_s \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

$E_s$  = SO<sub>2</sub> emissions from an individual fuel burned, in tons

$U_s$  = total heat input (mmBtu) of each individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel

$C_s$  = emission factor for the individual fuel in lbs SO<sub>2</sub>/mmBtu (see A.II.3.b)

- j. The total SO<sub>2</sub> emission rate of all fuels burned in emissions units B001 and B002, in tons/month, calculated as follows:

$$E_S = E_1 + E_2 + E_3 + \dots + E_s$$

where:

$E_S$  = Monthly SO<sub>2</sub> emissions, in tons/month; and,

$E_s$  = SO<sub>2</sub> emissions from each individual fuel burned, in tons (Section A.III.4.i)

- k. The total SO<sub>2</sub> emissions from each fuel burned in emissions unit B003, calculated as follows:

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$$E_v = U_v C_v 1\text{ton}/2000 \text{ lbs}$$

$E_v$  = SO<sub>2</sub> emissions from an individual fuel burned, in tons

$U_v$  = total heat input (mmBtu) of each individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel

$C_v$  = emission factor for the individual fuel in lbs SO<sub>2</sub>/mmBtu (see A.II.3.d)

- i. The total SO<sub>2</sub> emission rate of all fuels burned in emissions units B003, in tons/month, calculated as follows:

$$E_v = E_1 + E_2 + E_3 + \dots + E_v$$

where:

$E_v$  = Monthly SO<sub>2</sub> emissions, in tons/month; and,

$E_v$  = SO<sub>2</sub> emissions from each individual fuel burned, in tons (Section A.III.4.k)

- m. The total SO<sub>2</sub> emission rate of all fuels burned in emissions units B001, B002, and B003, combined, in tons/month, calculated as follows:

$$E_{sv} = E_s + E_v$$

where:

$E_{sv}$  = Monthly SO<sub>2</sub> emissions in tons/month; and,

$E_s$  = total SO<sub>2</sub> emissions from emissions units B001 and B002 (Section A.III.4.j)

$E_v$  = total SO<sub>2</sub> emissions from emissions unit B003 (Section A.III.4.i)

- n. The rolling, 12-month SO<sub>2</sub> emission rate of all fuels burned, calculated as follows:

$$E_w = E_{sv1} + E_{sv2} + E_{sv3} + \dots + E_{sv12}$$

where:

$E_w$  = Annual SO<sub>2</sub> emissions (tons) as summed from the previous 12 months of monthly SO<sub>2</sub> emissions;

$E_{sv}$  = Monthly SO<sub>2</sub> emissions (tons/month)

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#### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from Section A.III above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 45 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, propane, # 2 fuel oil , residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils (see A.II.2) was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective action taken to minimize or eliminate the visible particulate emissions. these reports shall be submitted to the Director (the appropriate District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:
  - a. the rolling, 12-month SO<sub>2</sub> emission limitation of 246 tons; and
  - b. the rolling, 12-month NO<sub>x</sub> emission limitation of 246 tons.

These reports shall be submitted in accordance with the General Terms and Conditions of this permit.

#### V. Testing Requirements

1. Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - a. Emission Limitation  
246.0 tons of NO<sub>x</sub> per rolling, 12-month period

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Applicable Compliance Method

Compliance with the above emission limitation shall be demonstrated through record keeping requirements in Section A.III.4.

- b. Emission Limitation  
246.0 tons of SO<sub>2</sub> per rolling, 12-month period

Applicable Compliance Method

Compliance with the above emission limitation shall be demonstrated through record keeping requirements in Section A.III.4.

- c. Emission Limitation:  
1.6 lbs SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the allowable sulfur dioxide emission limitation shall be demonstrated in accordance with the record keeping and calculations specified in section A.III.1.

If required, the permittee shall demonstrate compliance with the SO<sub>2</sub> emission limitation above in accordance with the methods specified in OAC rule 3745-18-04(E)(1).

When firing natural gas in this unit, compliance with this limitation shall be assumed due to the negligible percent sulfur, by weight, in the fuel.

- d. Emission Limitation:  
0.30 lb PE/mmBtu of actual heat input (for the burning of No. 6 fuel oil, or any combination of No. 6 fuel oil and the following fuels: No. 2 fuel oil, natural gas and biofuel (organic oils and greases).

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum fuel firing capacity of the emissions unit (200 gallons/hr, for No. 6 fuel oil) by the AP-42, Table 1.3-1 (revised 9/98) emissions factor for No. 6 fuel oil\* (10 lbs PE/1000 gal), and then by dividing the emissions unit's maximum heat input capacity (30 mmBTU/hr).

\*worst case fuel, for this emissions limit

If required, compliance with the hourly limitation above shall be based upon the results of emissions testing conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- e. Emission Limitation:

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0.020 lb PE/mmBtu of actual heat input (for the burning of natural gas or No. 2 fuel oil; or any combination of these fuels)

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum fuel firing capacity of the emissions unit (214 gallons/hr, for No. 2 fuel oil) by the AP-42, Table 1.3-1 (revised 9/98) emissions factor for No. 2 fuel oil\* ( 2 lbs PE/1000 gal), and then dividing by the emissions unit's maximum heat input capacity (30 mmBTU/hr).

\*worst case fuel for this emissions limit

If required, compliance with the hourly limitation above shall be based upon the results of emissions testing conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- f. Emission Limitation:  
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (B001) - Boiler No. 1; 30.0 mmBtu/hr boiler - No. 2 fuel oil, No. 6 fuel oil, biofuel (organic oils and greases) and/or natural gas fired.**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

Emissions Unit ID: B002

**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.

**Operations, Property, and/or Equipment -(B002) - Boiler No. 2: 72.0 mmBtu/hr boiler - No. 2 fuel oil, No. 6 fuel oil, biofuel (organic oils and greases) and/or natural gas fired.**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	246.0 tons nitrogen oxides (NOx) per rolling, 12-month period for emissions units B001, B002, and B003 combined (See Section A.I.2.a)  246.0 tons sulfur dioxide (SO <sub>2</sub> ) per rolling, 12-month period for emissions units B001, B002, and B003, combined (See Section A.I.2.a)
OAC rule 3745-31-05(A)(3)	See Section A.I.2.c.
OAC rule 3745-18-06	See Section A.I.2.d.
OAC rule 3745-17-10(C)(2)	0.30 lb particulate emissions (PE)/mmBtu of actual heat input (for the burning of No. 6 fuel oil, or any combination of No. 6 fuel oil and the following fuels: No. 2 fuel oil, natural gas or biofuel (organic oils and greases - see A.I.2.c)
OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input (for the burning of natural gas, No. 2 fuel oil; or any combination of these fuels)
OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a This permit establishes the following federally enforceable emission limitations for purposes of establishing the facility as a minor source for attainment New Source Review:

- i. 246.0 tons NO<sub>x</sub> per rolling, 12-month period from emissions units B001, B002, and B003, combined
- ii. 246.0 tons SO<sub>2</sub> per rolling, 12-month period from emissions units B001, B002, and B003, combined

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The emission limitations are based on fuel usage restrictions (see A.II.3) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability.

- 2.b** The emission limitation of 0.30 lb PE/mmBtu is based on curve P-2 of figure I of OAC rule 3745-17-10 and a total heat input capacity of 102 mmBtu/hr (for emissions units B001 and B002, combined). Emissions units B001 and B002 are considered either physically or operationally united.
- 2.c** Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) are not applicable to this emissions unit. Emissions unit B001 was installed prior to January 1974 and is not undergoing a physical change or change in the method of operation that would be considered a modification. Emission unit B001 is included in this permit to install as part of a request to establish federally enforceable emission limitations for NO<sub>x</sub> and SO<sub>2</sub> from emissions units B001, B002, and B003, combined (See Section A.I.2.a)
- 2.d** In accordance with OAC rule 3745-18-06(D), the maximum emissions of SO<sub>2</sub> shall not exceed 1.6 lbs per mmBtu actual heat input, when firing oil (#2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils)

In accordance with OAC rule 3745-18-06(A), the emissions unit is exempt during any calendar day in which natural gas/propane is the only fuel burned.

- 2.e** The permittee shall submit a written site-specific testing and monitoring plan to address the combustion of residual oils and mixtures of residual oils in emissions units B001, B002, and B003. The plan shall include fuel sampling procedures, testing, analyses, etc. for purposes of obtaining sulfur and heat content information to used to demonstrate compliance with the following requirements:
  - i. for emissions units B001 and B002, emissions of SO<sub>2</sub> shall not exceed 1.6 lbs per mmBtu heat input (see A.I.2.d and A.II.3.b);
  - ii. for emissions unit B003, the sulfur content of any oil (#2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils) shall not exceed 0.5 weight percent and 0.56 lb SO<sub>2</sub>/mmBtu heat input

The site-specific testing and monitoring plan must be approved by the Ohio EPA

Emissions Unit ID: B002

prior to operation of emissions units B001, B002, and B003 under the provisions of this permit. It should be noted that this permit involves a modification of emission units B001 and B002 which are existing emission units and the above requirement for an approved testing and monitoring plan does not preclude operation of these emissions units upon issuance of this permit. An approved testing and monitoring plan is required prior to these existing emission units operating under the provisions (i.e. modifications) allowed by this permit.

## II. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in this permit.
2. The permittee shall only burn natural gas, propane, #2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils in this emissions unit:
  - a. The #2 fuel oil combusted in this emissions unit shall only be fuel oil number 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils".
  - b. Residual oils combusted in this emissions unit shall only be residual oil as defined in OAC rule 3745-110-01(B) which reads ...crude oil, fuel oil that does not comply with the specifications under the definition of "distillate oil," and all fuel oil numbers four, five, or six as defined by ASTM D396-05, "Standard Specification for Fuel Oils."

It should be noted that some of the residual oils used will involve various organic oils and greases produced on site from the rendering process that meet the standards for yellow grease as defined in the Fats and Proteins Research Foundation, Inc. publication #306, "Animal Fats and Recycled Cooking Oils - Alternatives as Burner Fuels" from March 2001.

3. The maximum rolling, 12-month quantity of fuel burned in emissions units B001, B002, and B003, combined, shall be limited by the following equation. The criteria of the limiting equation must be met for both NO<sub>x</sub> and SO<sub>2</sub> (meaning the calculated results for NO<sub>x</sub> must not exceed 246.0 tons and the results for SO<sub>2</sub> must not exceed 246.0 tons)

$$\sum_{M=1}^{12} \left[ \sum_{m=1}^m (U_m)(C_m) + \sum_{n=1}^n (U_n)(C_n) \right] / 2000 \leq 246.0$$

where:

M = the increment of the rolling, 12-month period;

m = the increment of the heat input during the period for emissions units B001 & B002;

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$n$  = the increment of the heat input during the period for emissions unit B003;

$U_m$  = total heat input for B001 & B002, in mmBtu, for each individual fuel type: natural gas, propane, #2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

$U_n$  = total heat input for B003, in mmBtu, for each individual fuel type: natural gas, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

$C_m$  = emission factor for individual boiler fuels for B001 & B002:

$C_n$  = emission factor for individual boiler fuels for B003:

For emissions units B001 and B002,  $C_m$  equals the following:

- a. 0.37 lb NOx/mmBtu (all oils)  
0.10 lb NOx/mmBtu of natural gas/propane
- b. 1.60 lb SO<sub>2</sub>/mmBtu (all oils)  
0.001 lb SO<sub>2</sub>/mmBtu of natural gas/propane

For emission unit B003,  $C_n$  equals the following:

- c. 0.22 lb NOx/mmBtu (all oils)  
0.05 lb NOx/mmBtu of natural gas
- d. 0.56 lb SO<sub>2</sub>/mmBtu (all oils)  
0.001 lb SO<sub>2</sub>/mmBtu of natural gas

Emission factors other than those indicated above may be used with prior approval from the Ohio EPA, Northwest District Office.

Emissions units B001 and B002 have been in operation for greater than 12 months and as such the permittee has existing information to generate records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall comply with the following monitoring and record keeping when burning only fuel oils in this emissions unit:
  - a. When burning only #2 fuel oil in this emissions unit, the permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in Section A.II.2. Records of fuel supplier certification shall include the following information:

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- i. the name of the oil supplier;
    - ii. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in A.II.1 above; and
    - iii. the sulfur content of the oil in weight %.
  - b. When burning residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils, the permittee shall comply with all requirements of the written site-specific testing and monitoring plan (see A.I.2.e) as approved by the Ohio EPA.
2. For each day during which the permittee burns a fuel other than natural gas, propane, #2 fuel oil, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils, the permittee shall maintain a record of the type and quantity of fuel burned in this emission unit.
3. The permittee shall perform daily 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.
4. The permittee shall maintain monthly records of the following information for emissions units B001, B002, and B003:
  - a. the heat input for each individual fuel burned in emissions units B001 and B002

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combined, in mmBtu;

- b. the heat input of each individual fuel burned in emissions unit B003, in mmBtu;
- c. the total NO<sub>x</sub> emissions from each fuel burned in emissions units B001 & B002, calculated as follows:

$$E_m = \square \square U_m \square \square C_m \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

$E_m$  = NO<sub>x</sub> emissions from an individual fuel, in tons

$U_m$  = total heat input (mmBtu) of the individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel

$C_m$  = emission factor for the individual fuel in lbs NO<sub>x</sub>/mmBtu (see A.II.3.a & b)

- d. The total NO<sub>x</sub> emission rate of all fuels burned in emissions units B001 and B002, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + \dots + E_m$$

where:

$E_M$  = Monthly NO<sub>x</sub> emissions, in tons/month; and,

$E_m$  = NO<sub>x</sub> emissions from each individual fuel, in tons (Section A.III.4.c).

- e. the total NO<sub>x</sub> emissions from each fuel burned in emissions unit B003, calculated as follows:

$$E_n = \square \square U_n \square \square C_n \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

$E_n$  = NO<sub>x</sub> emissions from an individual fuel, in tons

$U_n$  = total heat input for B003, in mmBtu, for each individual fuel type: natural gas, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

$C_n$  = emission factor for the individual fuel in lbs NO<sub>x</sub>/mmBtu (see A.II.3.c & d)

- f. The total NO<sub>x</sub> emission rate of all fuels burned in emissions unit B003, in tons/month, calculated as follows:

$$E_N = E_1 + E_2 + E_3 + \dots + E_n$$

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where:

$E_N$  = Monthly NOx emissions, in tons/month; and,  
 $E_n$  = NOx emissions from each individual fuel burned in emissions unit B003 (Section A.III.4.e).

- g. The total NOx emission rate of all fuels burned in emissions units B001, B002, and B003, combined, in tons/month, calculated as follows:

$$E_{MN} = E_M + E_N$$

where:

$E_{MN}$  = Monthly NOx emissions in tons/month; and,  
 $E_M$  = total NOx emissions from emissions units B001 and B002 (Section A.III.4.d).  
 $E_N$  = total NOx emissions from emissions unit B003 (Section A.III.4.f).

- h. The rolling, 12-month NOx emission rate of all fuels burned in emissions units B001, B002, and B003, combined, calculated as follows:

$$E_T = E_{MN1} + E_{MN2} + E_{MN3} + \dots + E_{MN12}$$

where:

$E_T$  = Annual NOx emissions (tons) as summed from the previous 12 months of monthly NOx emissions;  
 $E_{MN}$  = Monthly NOx emissions in tons/month (Section A.III.4.g)

- i. The total SO2 emissions from each fuel burned in emissions units B001 & B002, calculated as follows:

$$E_s = \square \square U_s \square \square C_s \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

$E_s$  = SO2 emissions from an individual fuel burned, in tons  
 $U_s$  = total heat input (mmBtu) of each individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel  
 $C_s$  = emission factor for the individual fuel in lbs SO2/mmBtu (see A.II.3.b)

- j. The total SO2 emission rate of all fuels burned in emissions units B001 and B002, in tons/month, calculated as follows:

$$E_S = E_1 + E_2 + E_3 + \dots + E_s$$

where:

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$E_S$  = Monthly SO<sub>2</sub> emissions, in tons/month; and,  
 $E_s$  = SO<sub>2</sub> emissions from each individual fuel burned, in tons (Section A.III.4.i)

- k. The total SO<sub>2</sub> emissions from each fuel burned in emissions unit B003, calculated as follows:

$$E_v = U_v C_v 1\text{ton}/2000 \text{ lbs}$$

$E_v$  = SO<sub>2</sub> emissions from an individual fuel burned, in tons  
 $U_v$  = total heat input (mmBtu) of each individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel  
 $C_v$  = emission factor for the individual fuel in lbs SO<sub>2</sub>/mmBtu (see A.II.3.d)

- l. The total SO<sub>2</sub> emission rate of all fuels burned in emissions units B003, in tons/month, calculated as follows:

$$E_v = E_1 + E_2 + E_3 + \dots + E_v$$

where:

$E_v$  = Monthly SO<sub>2</sub> emissions, in tons/month; and,  
 $E_v$  = SO<sub>2</sub> emissions from each individual fuel burned, in tons (Section A.III.4.k)

- m. The total SO<sub>2</sub> emission rate of all fuels burned in emissions units B001, B002, and B003, combined, in tons/month, calculated as follows:

$$E_{SV} = E_S + E_v$$

where:

$E_{SV}$  = Monthly SO<sub>2</sub> emissions in tons/month; and,  
 $E_S$  = total SO<sub>2</sub> emissions from emissions units B001 and B002 (Section A.III.4.j)  
 $E_v$  = total SO<sub>2</sub> emissions from emissions unit B003 (Section A.III.4.i)

- n. The rolling, 12-month SO<sub>2</sub> emission rate of all fuels burned, calculated as follows:

$$E_W = E_{SV1} + E_{SV2} + E_{SV3} + \dots + E_{SV12}$$

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where:

$E_w$  =Annual SO<sub>2</sub> emissions (tons) as summed from the previous 12 months of monthly SO<sub>2</sub> emissions;

$E_{sv}$  =Monthly SO<sub>2</sub> emissions (tons/month)

#### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from Section A.III above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 45 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, propane, # 2 fuel oil , residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils (see A.II.2) was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective action taken to minimize or eliminate the visible particulate emissions. these reports shall be submitted to the Director (the appropriate District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:
  - a. the rolling, 12-month SO<sub>2</sub> emission limitation of 246 tons; and
  - b. the rolling, 12-month NO<sub>x</sub> emission limitation of 246 tons.

These reports shall be submitted in accordance with the General Terms and Conditions of this permit.

#### V. Testing Requirements

Emissions Unit ID: B002

1. Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation  
246.0 tons of NOx per rolling, 12-month period

Applicable Compliance Method

Compliance with the above emission limitation shall be demonstrated through record keeping requirements in Section A.III.4.

- b. Emission Limitation  
246.0 tons of SO<sub>2</sub> per rolling, 12-month period

Applicable Compliance Method

Compliance with the above emission limitation shall be demonstrated through record keeping requirements in Section A.III.4.

- c. Emission Limitation:  
1.6 lbs SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the allowable sulfur dioxide emission limitation shall be demonstrated in accordance with the record keeping and calculations specified in section A.III.1.

If required, the permittee shall demonstrate compliance with the SO<sub>2</sub> emission limitation above in accordance with the methods specified in OAC rule 3745-18-04(E)(1).

When firing natural gas in this unit, compliance with this limitation shall be assumed due to the negligible percent sulfur, by weight, in the fuel.

- d. Emission Limitation:  
0.30 lb PE/mmBtu of actual heat input (for the burning of No. 6 fuel oil, or any combination of No. 6 fuel oil and the following fuels: No. 2 fuel oil, natural gas and biofuel (organic oils and greases).

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum fuel firing capacity of the emissions unit ( 480 gallons/hr, for No. 6 fuel oil) by the AP-42, Table 1.3-1 (revised 9/98) emissions factor for No. 6 fuel oil\* (10 lbs PE/1000 gal), and then by dividing the emissions unit's maximum heat input capacity ( 72 mmBTU/hr).

\*worst case fuel, for this emissions limit

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If required, compliance with the hourly limitation above shall be based upon the results of emissions testing conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

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- e. Emission Limitation:  
0.020 lb PE/mmBtu of actual heat input (for the burning of natural gas or No. 2 fuel oil; or any combination of these fuels)

Applicable Compliance Method:

Compliance may be determined by multiplying the maximum fuel firing capacity of the emissions unit ( 514 gallons/hr, for No. 2 fuel oil) by the AP-42, Table 1.3-1 (revised 9/98) emissions factor for No. 2 fuel oil\* ( 2 lbs PE/1000 gal), and then dividing by the emissions unit's maximum heat input capacity ( 72 mmBTU/hr).

\*worst case fuel for this emissions limit

If required, compliance with the hourly limitation above shall be based upon the results of emissions testing conducted in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- f. Emission Limitation:  
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance with the visible PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment -(B002) - Boiler No. 2: 72.0 mmBtu/hr boiler - No. 2 fuel oil, No. 6 fuel oil, biofuel (organic oils and greases) and/or natural gas fired.**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**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**

- 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.

**Operations, Property, and/or Equipment - (B003) - Boiler No. 3: 87.5 mmBtu/hr boiler - No. 2 fuel oil, No. 6 fuel oil, biofuel (organic oils and greases) and/or natural gas fired.**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<u>Short-term emission limits for burning natural gas</u> 0.084 lb carbon monoxide (CO) per mmBtu of heat input;  0.0076 lb PM10 per mmBtu of heat input  <u>Short-term emission limits for burning oils</u> 0.04 lb CO per mmBtu of heat input;  0.56 lb SO2 per mmBtu of heat input;  0.05 lb/mmBtu for particulate matter 10 microns or less in size (PM10)  <u>Long-term emission limits for burning natural gas and/or oils</u> 19.16 tons PM10/yr;  32.20 tons CO/year
OAC rule 3745-31-05(C)	246.0 tons NOx per rolling, 12-month period (See Section A.I.2.a)  246.0 tons SO2 per rolling, 12-month period (See Section A.I.2.a)
OAC rule 3745-17-07(A)(1)	See A.I.2.b.
OAC rule 3745-18-06(D)	See A.I.2.b.
OAC rule 3745-17-10(B)(1)	See A.I.2.c.
OAC rule 3745-17-10(C)(2)	See A.I.2.c.
OAC rule 3745-21-07(B)	See A.I.2.d.
OAC rule 3745-21-08(B)	See A.I.2.d.
40 CFR Part 60 Subpart Dc	Opacity restrictions - See A.I.2.e  Oil content restrictions - See A.II.2

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OAC rule 3745-31-05(A)(3)(b)	See A.I.2.f.
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## 2. Additional Terms and Conditions

**2.a** Annual emissions shall not exceed the following, based upon a rolling, 12-month summation of the monthly emissions (for emissions units B001, B002 and B003, combined):

- i. 246.0 tons of SO<sub>2</sub>/year; and
- ii. 246.0 tons of NO<sub>x</sub>/year.

The emission limitations are based on fuel usage restrictions (see Section A.II.3) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability.

**2.b** The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to 40 CFR Part 60 Subpart Dc.

The SO<sub>2</sub> emission limitation specified by this rule is less stringent than the SO<sub>2</sub> emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). This determination is based on all emissions of particulate matter being PM<sub>10</sub> and the established PM<sub>10</sub> limitation being more restrictive than particulate emissions limitation established by OAC rule 3745-17-10(C)(2). Particulate emissions (PE) measured using Method 5 of 40 CFR Part 60, Appendix A would be equivalent to the filterable particulates measured using Method 201/201A of 40 CFR, Part 51, Appendix M. A PM<sub>10</sub> limitation is more stringent due to the inclusion of condensable particulate matter measured by Method 202 of 40 CFR, Part 51, Appendix M.

**2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) and 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 this Permit to Install.

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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. On February 18, 2008 Ohio EPA rescinded existing rule 3745-21-07 of the Ohio Administrative Code (OAC) and adopted new rule 3745-21-07. The new OAC rule 3745-21-07 does not establish any requirements for this emissions unit. However, that rule revision and new rule have 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 and approves the new OAC rule 3745-21-07, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** The permittee shall not cause to be discharged into the atmosphere from the combustion of oil, any gases that exhibit greater than 20% opacity as a 6-minute average, except for one 6 minute period per hour of not more than 27% opacity.
- 2.f** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the organic compound (includes volatile organic compounds) emissions from this air contaminant source since the uncontrolled potential to emit for emissions of organic compounds is less than 10 tons per year.
- 2.g** In accordance with 40 CFR 60.47c(f), the permittee shall submit a written site-specific monitoring plan which includes procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard in A.I.2.e.

The site-specific monitoring plan must be approved by the Ohio EPA prior to startup of this emissions unit.

- 2.h** The permittee shall submit a written site-specific testing and monitoring plan to address the combustion of residual oils and mixtures of residual oils in emissions units B001, B002, and B003. The plan shall include fuel sampling procedures, testing, analyses, etc. for purposes of obtaining sulfur and heat content information to used to demonstrate compliance with the requirements:
- i. for emissions units B001 and B002, emissions of SO<sub>2</sub> shall not exceed 1.6 lbs per mmBtu heat input;
  - ii. for emissions unit B003, the sulfur content of any oil (residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils) shall not exceed 0.5 weight percent and 0.56 lb SO<sub>2</sub>/mmBtu heat input (see A.II.2 and A.II.3.d)

The site-specific testing and monitoring plan must be approved by the Ohio EPA prior to operation of emissions units B001, B002, and B003 under the provisions

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of this permit. It should be noted that this permit involves a modification of emission units B001 and B002 which are existing emission units and the above requirement for an approved testing and monitoring plan does not preclude operation of these emissions units upon issuance of this permit. An approved testing and monitoring plan is required prior to these existing emission units operating under the provisions (i.e. modifications) allowed by this permit.

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## II. Operational Restrictions

1. The permittee shall only burn natural gas, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils in this emissions unit:
  - a. Residual oils combusted in this emissions unit shall only be shall only be crude oil, fuel oil that does not comply with the specifications under the definition of "distillate oil," and all fuel oil numbers four, five, or six, as defined by ASTM D396-05, "Standard Specification for Fuel Oils."

It should be noted that some of the residual oils used will involve various organic oils and greases produced on site from the rendering process that meet the standards for yellow grease as defined in the Fats and Proteins Research Foundation, Inc. publication #306, "Animal Fats and Recycled Cooking Oils - Alternatives as Burner Fuels" from March 2001.

2. The sulfur content of any oil (residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils) combusted in this emissions unit shall not exceed 0.5 weight percent.
3. The maximum rolling, 12-month quantity of fuel burned in emissions units B001, B002, and B003, combined, shall be limited by the following equation. The criteria of the limiting equation must be met for both NO<sub>x</sub> and SO<sub>2</sub> (meaning the calculated results for NO<sub>x</sub> must not exceed 246.0 tons and the results for SO<sub>2</sub> must not exceed 246.0 tons)

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$$\sum_{M=1}^{12} \left[ \sum_m (U_m)(C_m) + \sum_n (U_n)(C_n) \right] / 2000 \leq 246.0$$

where:

M = the increment of the rolling, 12-month period;

m = the increment of the heat input during the period for emissions units B001 & B002;

n = the increment of the heat input during the period for emissions unit B003;

U<sub>m</sub> = total heat input for B001 & B002, in mmBtu, for each individual fuel type: natural gas, propane, #2 fuel oil, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

U<sub>n</sub> = total heat input for B003, in mmBtu, for each individual fuel type: natural gas, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

C<sub>m</sub> = emission factor for individual boiler fuels for B001 & B002:

C<sub>n</sub> = emission factor for individual boiler fuels for B003:

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For emissions units B001 and B002,  $C_m$  equals the following:

- a. 0.37 lb NO<sub>x</sub>/mmBtu (all oils)  
0.10 lb NO<sub>x</sub>/mmBtu of natural gas/propane
- b. 1.60 lb SO<sub>2</sub>/mmBtu (all oils)  
0.001 lb SO<sub>2</sub>/mmBtu of natural gas/propane

For emission unit B003,  $C_n$  equals the following:

- c. 0.22 lb NO<sub>x</sub>/mmBtu (all oils)  
0.05 lb NO<sub>x</sub>/mmBtu of natural gas
- d. 0.56 lb SO<sub>2</sub>/mmBtu (all oils)  
0.001 lb SO<sub>2</sub>/mmBtu of natural gas

Emission factors other than those indicated above may be used with prior approval from the Ohio EPA, Northwest District Office.

Emissions units B001 and B002 have been in operation for greater than 12 months and as such the permittee has existing information to generate records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit.

### III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils in this emissions unit the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall comply with all requirements of the written site-specific testing and monitoring plan (see A.I.2.h) as approved by the Ohio EPA for burning residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils.
3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, and B003:
  - a. the heat input for each individual fuel burned in emissions units B001 and B002 combined, in mmBtu;
  - b. the heat input of each individual fuel burned in emissions unit B003, in mmBtu;
  - c. the total NO<sub>x</sub> emissions from each fuel burned in emissions units B001 & B002, calculated as follows:

$$E_m = \square \square U_m \square \square C_m \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

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- $E_m$  = NOx emissions from an individual fuel, in tons  
 $U_m$  = total heat input (mmBtu) of the individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel  
 $C_m$  = emission factor for the individual fuel in lbs NOx/mmBtu (see A.II.3.a & b)

- d. The total NOx emission rate of all fuels burned in emissions units B001 and B002, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + \dots + E_m$$

where:

- $E_M$  = Monthly NOx emissions, in tons/month; and,  
 $E_m$  = NOx emissions from each individual fuel, in tons (Section A.III.4.c).

- e. the total NOx emissions from each fuel burned in emissions unit B003, calculated as follows:

$$E_n = \square \square U_n \square \square C_n \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

- $E_n$  = NOx emissions from an individual fuel, in tons  
 $U_n$  = total heat input for B003, in mmBtu, for each individual fuel type: natural gas, residual oils, a mixture of #2 fuel oil and residual oils, a mixture of residual oils;

$C_n$  = emission factor for the individual fuel in lbs NO<sub>x</sub>/mmBtu (see A.II.3.c & d)

- f. The total NOx emission rate of all fuels burned in emissions unit B003, in tons/month, calculated as follows:

$$E_N = E_1 + E_2 + E_3 + \dots + E_n$$

where:

- $E_N$  = Monthly NOx emissions, in tons/month; and,  
 $E_n$  = NOx emissions from each individual fuel burned in emissions unit B003 (Section A.III.4.e).

- g. The total NOx emission rate of all fuels burned in emissions units B001, B002,

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and B003, combined, in tons/month, calculated as follows:

$$E_{MN} = E_M + E_N$$

where:

$E_{MN}$  = Monthly NOx emissions in tons/month; and,

$E_M$  = total NOx emissions from emissions units B001 and B002 (Section A.III.4.d).

$E_N$  = total NOx emissions from emissions unit B003 (Section A.III.4.f).

- h. The rolling, 12-month NOx emission rate of all fuels burned in emissions units B001, B002, and B003, combined, calculated as follows:

$$E_T = E_{MN1} + E_{MN2} + E_{MN3} + \dots + E_{MN12}$$

where:

$E_T$  = Annual NOx emissions (tons) as summed from the previous 12 months of monthly NOx emissions;

$E_{MN}$  = Monthly NOx emissions in tons/month (Section A.III.4.g)

- i. The total SO2 emissions from each fuel burned in emissions units B001 & B002, calculated as follows:

$$E_s = \sum U_s \sum C_s \left( \frac{1 \text{ ton}}{2000 \text{ lbs}} \right)$$

$E_s$  = SO2 emissions from an individual fuel burned, in tons

$U_s$  = total heat input (mmBtu) of each individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel

$C_s$  = emission factor for the individual fuel in lbs SO2/mmBtu (see A.II.3.b)

- j. The total SO2 emission rate of all fuels burned in emissions units B001 and B002, in tons/month, calculated as follows:

$$E_S = E_1 + E_2 + E_3 + \dots + E_s$$

where:

$E_S$  = Monthly SO2 emissions, in tons/month; and,

$E_s$  = SO2 emissions from each individual fuel burned, in tons (Section A.III.4.i)

- k. The total SO2 emissions from each fuel burned in emissions unit B003, calculated as follows:

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$$E_v = \square \square U_v \square \square C_v \square \square 1\text{ton}/2000 \text{ lbs} \square \square$$

$E_v$  = SO2 emissions from an individual fuel burned, in tons

$U_v$  = total heat input (mmBtu) of each individual fuel - natural gas, No. 2 fuel oil, No. 6 fuel oil, biofuel

$C_v$  = emission factor for the individual fuel in lbs SO2/mmBtu (see A.II.3.d)

- I. The total SO2 emission rate of all fuels burned in emissions units B003, in tons/month, calculated as follows:

$$E_v = E_1 + E_2 + E_3 + \dots + E_v$$

where:

$E_v$  = Monthly SO2 emissions, in tons/month; and,

$E_v$  = SO2 emissions from each individual fuel burned, in tons (Section A.III.4.k)

- m. The total SO2 emission rate of all fuels burned in emissions units B001, B002, and B003, combined, in tons/month, calculated as follows:

$$E_{sv} = E_s + E_v$$

where:

$E_{sv}$  = Monthly SO2 emissions in tons/month; and,

$E_s$  = total SO2 emissions from emissions units B001 and B002 (Section A.III.4.j)

$E_v$  = total SO2 emissions from emissions unit B003 (Section A.III.4.l)

- n. The rolling, 12-month SO2 emission rate of all fuels burned, calculated as follows:

$$E_w = E_{sv1} + E_{sv2} + E_{sv3} + \dots + E_{sv12}$$

where:

$E_w$  = Annual SO2 emissions (tons) as summed from the previous 12 months of monthly SO2 emissions;

$E_{sv}$  = Monthly SO2 emissions (tons/month)

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4. The permittee shall comply with all requirements of the written site-specific monitoring plan (see A.I.2.g) as approved by the Ohio EPA.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils was combusted in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:
  - a. the rolling, 12-month SO<sub>2</sub> limitation of 246.0 tons; and
  - b. the rolling, 12-month NO<sub>x</sub> limitation of 246.0 tons.
  - c. the fuel usage restrictions, based on the calculations specified in Section A.II.3, for summing the NO<sub>x</sub> and SO<sub>2</sub> rolling, 12-month emissions;
  - d. the 0.5%, by weight, sulfur content restriction;
  - e. the 0.56 lb SO<sub>2</sub> per mmBtu heat input emission limitation;

These reports shall be submitted in accordance with the General Terms and Conditions of this permit.

3. Pursuant to the New Source Performance Standards (NSPS), the permittee is hereby advised of the requirements to report the following at the appropriate times:
  - a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio EPA, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402

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The notification of 40 CFR 60.48c(a)(1) include the design heat input capacity and identification of fuels to be combusted was fulfilled by the permit to install application received on September 26, 2007.

## V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations (Short term limitations when burning natural gas)  
0.084 lb CO per mmBtu  
0.0076 lb PM10 per mmBtu

### Applicable Compliance Method

Compliance with the short-term emission limitation for CO shall be demonstrated by dividing an emission factor of 84 lbs CO/mmcf (AP-42 Section 1.4, Natural Gas Combustion Table 1.4-1 [7/98]) by a natural gas heat content of 1000 Btu/cf. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the short-term emission limitation for PM10 shall be demonstrated by dividing an emission factor of 7.6 lbs PM10/mmcf (AP-42 Section 1.4, Natural Gas Combustion Table 1.4-2 [7/98]) by a natural gas heat content of 1000 Btu/cf. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A, and 201/201A and 202 of 40 CFR Part 51, Appendix M.

- b. Emission Limitations (Short-term limitations for burning oils)  
0.04 lb CO per mmBtu  
0.56 lb SO<sub>2</sub> per mmBtu  
0.05 lb PM10 per mmBtu

### Applicable Compliance Method

Compliance with the short-term emission limitation for CO shall be demonstrated by dividing an emission factor of 5 lbs of CO/1000 gallons (AP-42 Section 1.3, Fuel Oil Combustion, Table 1.3-1 [9/98]) by a worst-case fuel oil heat content of 0.132 mmBtu/gal. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the short-term SO<sub>2</sub> emission limitation shall be demonstrated by the site-specific testing and monitoring plan required in A.I.2.h.

Compliance with the short-term emission limitations for PM10 and NO<sub>x</sub> shall be demonstrated by the testing requirements in A.V.2.

- c. Emission Limitations (Long-term emission limitations for burning any fuel)

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19.16 tons PM10  
32.20 tons CO/year;

Applicable Compliance Method

The annual emission limitations were established by multiplying the short-term emission limitations of 0.05 lb PM10 per mmBtu and 0.04 lb CO per mmBtu, a maximum heat input capacity of 87.5 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs per ton. Therefore provided compliance is shown with the short-term limitations, compliance with the ton/yr limitations shall be assumed.

- d. Emission Limitation  
246.0 tons of NOx per rolling, 12-month period

Applicable Compliance Method

Compliance with the above emission limitation shall be demonstrated through monitoring and record keeping requirements in Section A.III.3.

- e. Emission Limitation  
246.0 tons of SO2 per rolling, 12-month period

Applicable Compliance Method

Compliance with the above emission limitation shall be demonstrated through monitoring and record keeping requirements in Section A.III.3.

- f. Emission Limitation  
The permittee shall not cause to be discharged into the atmosphere from the combustion of oil, any gases that exhibit greater than 20% opacity as a 6-minute average, except for one 6 minute period per hour of not more than 27% opacity.

Applicable Compliance Method

Compliance shall be demonstrated by the testing requirements in A.V.2.

- g. Emission Limitation  
The sulfur content of any oil (residual oils, a mixture of #2 fuel oil and residual oils, or a mixture of residual oils) combusted in this emissions unit shall not exceed 0.5 weight percent.

Applicable Compliance Method

Compliance with the short-term SO2 emission limitation shall be demonstrated

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by the site-specific testing and monitoring plan required in A.I.2.h.

2. The permittee shall conduct or have conducted emissions testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted 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 startup of such emissions unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the following emission limitations:
    - i. 0.05 lb PM<sub>10</sub>/mmBtu, when burning oil;
    - ii. 0.23 lb NO<sub>x</sub>/mmBtu; and
    - iii. the opacity standard outlined in A.I.2.e.
  - c. The following test methods shall be employed to demonstrate compliance with the above emissions limitations:
    - i. for PM<sub>10</sub>, Methods 1-4 of 40 CFR Part 60, Appendix A, and 201/201A and 202 of 40 CFR Part 51, Appendix M.
    - ii. for NO<sub>x</sub>, Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.
    - iii. for Opacity, Method 9 of 40 CFR Part 60, Appendix A

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.
  - d. The test shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, NWDO.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. 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

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the Ohio EPA, NWDO's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, NWDO 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 of the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

## **VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (B003) - Boiler No. 3: 87.5 mmBtu/hr boiler - No. 2 fuel oil, No. 6 fuel oil, natural gas and/or biofuel (organic oils and greases).**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-110-03(B)	0.10 lb NO <sub>x</sub> per mmBtu when burning natural gas  0.23 lb NO <sub>x</sub> per mmBtu when burning any fuel oil or fuel oil mixture consisting of residual oil

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations (Short term limitations when burning natural gas)

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0.10 lb NOx per mmBtu

Applicable Compliance Method

Compliance with the emission limitation for NOx shall be demonstrated by dividing an emission factor of 50 lbs NOx/mmcf (AP-42 Section 1.4, Natural Gas Combustion Table 1.4-1 [7/98]) by a natural gas heat content of 1000 Btu/cf. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

b. Emission Limitations (Short-term limitations for burning oils)

0.23 lb NOx per mmBtu, when burning fuel oil or fuel oil mixture consisting of residual oil

Applicable Compliance Method

Compliance with the emission limitation for NOx shall be demonstrated by the testing requirements in A.V.2.

**VI. Miscellaneous Requirements**

None