



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL CERTIFIED MAIL  
MONTGOMERY COUNTY**

Street Address:

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

Mailing Address:  
Lazarus Gov.  
Center

**Application No: 08-04215**

**DATE: 4/5/2001**

Cargill Inc - Dayton  
Angie Duvall  
PO Box 1400A 3201 Needmore Rd  
Dayton, OH 45414-0000

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$6800** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

CC: USEPA      RAPCA      KY      IN      Miami Valley Reg Plan Com



**Permit To Install**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

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**Terms and Conditions**

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**Issue Date: To be entered upon final issuance**  
**Effective Date: To be entered upon final issuance**

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**DRAFT PERMIT TO INSTALL 08-04215**

Application Number: 08-04215  
APS Premise Number: 0857041124  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Cargill Inc - Dayton  
Person to Contact: Angie Duvall  
Address: PO Box 1400A 3201 Needmore Rd  
Dayton, OH 45414-0000

Location of proposed air contaminant source(s) [emissions unit(s)]:

**3201 Needmore Rd**  
**Dayton, Ohio**

Description of proposed emissions unit(s):

**facility boiler system, feedhouse operations, north mill steephouse aspiration and steamtube dryer; chapter 31 replacing 08-3290 issued 6-12-96.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Cargill Inc - Dayton

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Issued: To be entered upon final issuance

**Part I - GENERAL TERMS AND CONDITIONS**

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

**1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.11 below if no deviations occurred during the quarter.

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

## **2. Scheduled Maintenance/Malfunction Reporting**

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

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

## **3. Risk Management Plans**

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

## **4. Title IV Provisions**

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

## **5. Severability Clause**

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A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

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

## **7. Fees**

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

## **8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit

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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.

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#### 10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

#### 11. Best Available Technology

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

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

**1. Compliance Requirements**

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

**2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

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

**3. Permit Transfers**

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

**4. 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.

**5. Termination of Permit To Install**

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

#### **6. Construction of New Sources(s)**

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

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

#### **7. 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.

#### **8. 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).

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**9. Construction Compliance Certification**

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

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

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

**C. Permit To Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
particulates	83.43
SO <sub>2</sub>	3051
NO <sub>x</sub>	1300.3
CO	174.35
VOC	14.05

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

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

None

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

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B004 - 567 mmBtu/hour pulverized dry bottom coal-fired boiler with natural gas and No. 2 fuel oil as supplemental fuels; with baghouse control	OAC rule 3745-31-05(D)  OAC rule 3745-31-05(A)(3)  OAC rule 3745-17-07(A) OAC rule 3745-17-10(C)(1) OAC rule 3745-18-63(A) 40 CFR Part 60 Subpart D

**Cargil**

**PTI A**

Emissions Unit ID: B004

**Issued: To be entered upon final issuance**

Applicable Emissions Limitations/Control Measures	emissions unit B004 when burning only coal (See A.I.2.c.)
0.035 lb particulates/mmBtu of actual heat input in emissions unit B004	1037.3 TPY NO <sub>x</sub> , as a rolling, 365-day summation from emissions unit B004
The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart D.	63.51 TPY particulates from the main stack (See A.I.2.a)
14.5 lbs/hour particulates from the main stack (See A.I.2.a)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Opacity shall not exceed 10 percent, as a six-minute average from the main stack (See A.I.2.a)	
11 lbs/hour and 48.2 TPY carbon monoxide (CO)	
1.32 lbs/hour and 5.78 TPY volatile organic compounds (VOC)	
2980.2 TPY sulfur dioxide (SO <sub>2</sub> )	
1.2 lbs sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input in emissions unit B004 when burning only coal (See A.I.2.b.)	
0.70 lb nitrogen oxides (NO <sub>x</sub> )/mmBtu of actual heat input, as a 3-hour average in	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

**2.a** The particulate emissions from emissions units B004, B009, P008, P030, P032, P033, P034, P037, P040, P053, P058, P059, P074, P075, and P076 are vented to a common egress point identified as the main stack. The 14.5 lbs/hour and 63.51 TPY particulate emission rates and the 10 percent opacity limitation, as a six-minute average, apply to the common egress point, the main stack.

**2.b** When burning coal, natural gas, and No. 2 fuel oil simultaneously in any combination, the allowable SO<sub>2</sub> emission rate shall be determined by proration using the following equation:

$$PS(SO_2) = [y(0.80) + z(1.2)] / (y + z)$$

Where: PS(SO<sub>2</sub>) is the prorated SO<sub>2</sub> allowable emission rate when burning different fuels simultaneously, in pounds per mmBtu of heat input derived from all fuels fired.

y is the percentage of total heat input derived from No. 2 fuel oil.

z is the percentage of total heat input derived from coal.

**2.c** When burning coal, natural gas, and No. 2 fuel oil simultaneously in any combination, the allowable NO<sub>x</sub> emission rate shall be determined by proration using the following equation:

$$PS(NO_x) = [x(0.20) + y(0.30) + z(0.70)] / (x + y + z)$$

Where: PS(NO<sub>x</sub>) is the prorated NO<sub>x</sub> allowable emission rate, as a 3-hour average, when burning different fuels simultaneously, in pounds per mmBtu of heat input derived from all fuels fired.

Emissions Unit ID: B004

x is the percentage of total heat input derived from natural gas.

y is the percentage of total heat input derived from No. 2 fuel oil.

z is the percentage of total heat input derived from coal.

- 2.d** The 11 lbs CO/hour, 48.2 TPY CO, 1.32 lbs VOC/hour, 5.78 TPY VOC, and 2980.2 TPY SO<sub>2</sub> limitations were developed for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 10 inches of water while the emissions unit is in operation.
2. The quality of coal and No. 2 fuel oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable emission limit in Section A.I. above.

## III. Monitoring and/or Recordkeeping Requirements

1. To obtain an exemption from the visible emissions limitations specified in OAC rule 3745-17-07(A), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves a temperature of two hundred eighty (280) degrees Fahrenheit and (b) during all periods of shutdown until the inlet temperature of the baghouse drops below the temperature of two hundred eighty (280) degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

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

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

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

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

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
4. The permittee shall collect a representative sample of each shipment of coal which is received for burning. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each day, the representative samples of coal from all shipments of coal which were received during that day shall be combined into one composite sample.

Each daily composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content and heat content shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

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

Emissions Unit ID: B004

For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

6. The permittee shall maintain monthly records of the following information for all shipments of coal and oil received for burning in this emissions unit during the calendar month:
  - a. The total quantity of coal received, in tons.
  - b. The results of the analyses for ash content (percent), sulfur content (percent), heat content (Btu/pound) of the coal received.
  - c. The total quantity of oil received, in gallons.
  - d. The results of the analyses for sulfur content (percent) and heat content (Btu/gallon) of the oil received during the calendar month.
  - e. The calculated prorated allowable SO<sub>2</sub> emission rate, in lb/mmBtu (see A.I.2.b.)
  - f. The calculated average SO<sub>2</sub> emission rate, in lb/mmBtu of actual heat input from all fuels burned in this emissions unit (see calculation methodology in A.V.1.d.).
7. A statement of certification of the existing continuous NO<sub>x</sub> monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in lb/mmBtu. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in lb/mmBtu as a 3-hour average, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. The permittee shall maintain daily records of the following:
  - a. The calculated prorated allowable NO<sub>x</sub> emission rate, in lb/mmBtu (see A.I.2.c.)
  - b. The calculated NO<sub>x</sub> emission rate from this emissions unit, in lbs/day. The NO<sub>x</sub> emission rate shall be calculated using the following equation:  $ER = (X)(Y)(Z)$ .

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Where: ER is the calculated NOx emission rate, in lbs/day.

X is the NOx emission factor in lb/mmBtu, as a daily average from the continuous NOx monitoring system.

Y is the fuel usage, in tons/day of coal, gallons of fuel oil, and cubic feet of natural gas.

Z is the fuel heat content, using the results of the fuel analysis for heat content of coal and oil, and 1,020 Btu/cubic foot of natural gas.

- c. The rolling, 365-day summation of the NOx emission rates from this emissions unit.

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II.1.
  - b. All exceedances of the rolling, 365-day NOx emission limitation for this emissions unit.

These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).

2. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

3. Quarterly reports shall be submitted concerning the quality and quantity of coal and oil received for burning in this emissions unit. These reports shall include the following information for the emissions unit for each day during the calendar quarter:
  - a. The total quantity of coal received (tons).
  - b. The average ash content (percent), sulfur content (percent), and heat content (Btu/pound) of the coal received.
  - c. The total quantity of oil received in each shipment, in gallons.
  - d. Copies of the permittee's or oil supplier's analyses, documenting the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil which is received for burning in this emissions unit.
  - e. The average sulfur dioxide emissions rate (lbs SO<sub>2</sub>/mmBtu of actual heat input) from all fuels burned in this emissions unit.

These quarterly reports shall be submitted by the dates prescribed in Part I - General Terms and Conditions of this permit under section (A)(1) and shall cover the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

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5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

## **V. Testing Requirements**

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

- a. Emission Limitation -

0.035 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

Compliance with this limit was demonstrated during a stack test conducted on August 23, 2000 with results of 0.0313 lb particulates/mmBtu of actual heat input. Compliance can also be shown through additional stack testing in accordance with OAC rule 3745-17-03(B)(9).

b. Emission Limitation -

14.5 lbs/hour particulates from the main stack

Applicable Compliance Method -

Compliance shall be based upon stack testing as specified in A.V.2.

c. Emission Limitation -

10% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed using the methods and procedures specified in USEPA Reference Method 9. (See A.III.2.)

d. Emission Limitation -

11 lbs CO/hour

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal

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burning capacity of this emissions unit (22 tons/hour) by the AP-42 Table 1.1-3 (9/98) emission factor of 0.5 lb CO/ton coal. If required, compliance shall be based upon stack testing in accordance with 40 CFR Part 60, Appendix A Method 10.

## e. Emission Limitation -

48.2 TPY CO

Applicable Compliance Method -

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hours/year and then dividing by 2,000 lbs/ton).

## f. Emission Limitation -

1.32 lbs VOC/hour

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity of this emissions unit (22 tons/hour) by the AP-42 Table 1.1-19 (9/98) emission factor of 0.06 lb VOC/ton coal. If required, compliance shall be based upon stack testing in accordance with 40 CFR Part 60, Appendix A Method 18, 25, or 25A.

## g. Emission Limitation -

5.78 TPY VOC

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Applicable Compliance Method -

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hours/year and then dividing by 2,000 lbs/ton).

h. Emission Limitation -

2980.2 TPY SO2

Applicable Compliance Method -

As long as compliance is maintained with the 1.2 lbs SO2/mmBtu emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the maximum hourly heat input by the maximum allowable limitation of 1.2 lbs SO2/mmBtu and by the maximum annual operating schedule of 8,760 hours/year and then dividing by 2,000 lbs/ton).

i. Emission Limitation -

1.2 lbs SO2/mmBtu of actual heat input, when burning only coal

Prorated SO2 emission rate, in lb/mmBtu, when burning coal, natural gas, and/or No. 2 fuel oil simultaneously

Applicable Compliance Method -

Compliance shall be determined by the record keeping and analysis requirements specified in A.III.6., and the use of the equation contained in OAC rule 3745-18-04(F)(1). If required, compliance shall be based upon stack testing in accordance with OAC rule 3745-18-04(D)(1).

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j. Emission Limitation -

0.70 lb NO<sub>x</sub>/mmBtu actual heat input, as a 3-hour average, when burning only coal

Calculated prorated NO<sub>x</sub> allowable emission rate, in lb/mmBtu as a 3-hour average, when burning coal, natural gas, and/or No. 2 fuel oil simultaneously

Applicable Compliance Method -

Compliance shall be based upon the continuous NO<sub>x</sub> monitoring system as specified in A.III.7. and the calculated allowable emission rate recorded in A.III.8.

k. Emission Limitation -

1037.3 TPY NO<sub>x</sub>, as a rolling, 365-day summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.8.

l. Emission Limitation -

63.51 TPY particulates, from the main stack

Applicable Compliance Method -

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hours/year and then

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dividing by 2,000 lbs/ton).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within ninety days after final issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the 14.5 lbs/hour particulates limitation for the main stack.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while this emissions unit and all emissions units venting to the main stack are operating at maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may

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request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

1. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.
2. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
3. This PTI is a Chapter 31 modification replacing PTI 08-3290 issued June 12, 1996 for emissions unit B004.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004 - 567 mmBtu/hour pulverized dry bottom coal-fired boiler with natural gas and No. 2 fuel oil as supplemental fuels; with baghouse control	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**

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None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
B005 - 189.6 mmBtu/hour natural gas-fired CB package boiler #3	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-10(B)(1)
		OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(D)	

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Applicable Emissions  
Limitations/Control  
Measures

0.11 lb/hour sulfur dioxide  
(SO<sub>2</sub>)

0.3 lb nitrogen oxides  
(NO<sub>x</sub>)/mmBtu of actual heat  
input

15.62 lbs/hour carbon  
monoxide (CO)

1.02 lb/hour volatile organic  
compounds (VOC)

The requirements of this rule  
also include compliance with  
the requirements of OAC  
rule 3745-17-10(B)(1).

0.45 TPY particulates, as a  
rolling, 12-month summation

0.14 TPY SO<sub>2</sub>, as a rolling,  
12-month summation

71.91 TPY NO<sub>x</sub>, as a  
rolling, 12-month summation

19.74 TPY CO, as a rolling,  
12-month summation

1.29 TPY VOC, as a rolling,  
12-month summation

0.020 lb particulates/mmBtu  
of actual heat input

Opacity shall not exceed 20  
percent, as a six-minute  
average, except as provided  
by rule

**2. Additional Terms and Conditions**

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- 2.a** The hourly emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- 2.b** Since natural gas is the only fuel fired in this emissions unit, no SO<sub>2</sub> emission limitation is established by OAC Chapter 3745-18 for this emissions unit.

**II. Operational Restrictions**

1. The maximum annual natural gas usage for this emissions unit shall not exceed 470 million cubic feet based upon a rolling, 12-month summation of the natural gas usage figures.
2. The permittee shall burn only natural gas in this emissions unit.

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

1. The permittee shall maintain monthly records of the following:
  - a. The natural gas usage, in mm cubic feet.
  - b. The rolling, 12-month summation of natural gas usage, in mm cubic feet.
  - c. The monthly particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission rates, in tons.
  - d. The rolling, 12-month summation of the particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission rates, in tons.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. All exceedances of the rolling, 12-month emission limitations for particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and/or VOC.

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- b. All exceedances of the rolling, 12-month natural gas usage limitation.

These reports are due by the data prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).

- 2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**V. Testing Requirements**

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

- a. Emission Limitation -

0.11 lb/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance shall be based upon multiplying the hourly gas burning capacity of the emissions unit (0.186 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cubic feet.

- b. Emission Limitation -

0.3 lb NO<sub>x</sub>/mmBtu of actual heat input

Applicable Compliance Method -

Compliance shall be based upon stack testing as specified in A.V.2.

- c. Emission Limitation -

15.62 lbs/hour CO

Applicable Compliance Method -

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Compliance shall be based upon multiplying the hourly gas burning capacity of the emissions unit (0.186 mm cubic feet/hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cubic feet.

d. Emission Limitation -

1.02 lb/hour VOC

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## Applicable Compliance Method -

Compliance shall be based upon multiplying the hourly gas burning capacity of the emissions unit (0.186 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cubic feet.

## e. Emission Limitation -

0.45 TPY particulates, as a rolling, 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by multiplying the natural gas usage rate for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cubic feet, and dividing by 2000 lbs/ton. The monthly particulate emission rates shall then be summed for the rolling, 12-month period.

## f. Emission Limitation -

0.14 TPY SO<sub>2</sub>, as a rolling, 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by multiplying the natural gas usage rate for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cubic feet, and dividing by 2000 lbs/ton. The monthly SO<sub>2</sub> emission rates

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shall then be summed for the rolling,  
12-month period.

g. Emission Limitation -

71.91 TPY NO<sub>x</sub>, as a rolling, 12-month  
summation

Applicable Compliance Method -

Compliance shall be based upon record  
keeping as specified in A.III.1. and shall be  
determined by multiplying the natural gas  
usage rate for the month by the allowable  
emission rate of 0.3 lb NO<sub>x</sub>/mmBtu and the  
heat content of natural gas, and dividing by  
2,000 lbs/ton. The monthly NO<sub>x</sub> emission  
rates shall then be summed for the rolling,  
12-month period.

h. Emission Limitation -

19.74 TPY CO, as a rolling, 12-month  
summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by multiplying the natural gas usage rate for the month by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cubic feet, and dividing by 2000 lbs/ton. The monthly CO emission rates shall then be summed for the rolling, 12-month period.

## i. Emission Limitation -

1.29 TPY VOC, as a rolling, 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by multiplying the natural gas usage rate for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cubic feet, and dividing by 2000 lbs/ton. The monthly VOC emission rates shall then be summed for the rolling, 12-month period.

## j. Emission Limitation -

0.020 lb particulates/mmBtu of actual heat input

## Applicable Compliance Method -

Compliance shall be based upon multiplying the hourly gas burning capacity of the emissions unit (0.186 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98)

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emission factor of 1.9 lbs particulates/mm cubic feet, divided by the maximum hourly heat input capacity of the emissions unit (189.6 mmBtu/hour).

k. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

l. Operational Limitation -

470 mm cubic feet natural gas usage as a rolling, 12-month summation

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Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within ninety days after final issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance with the 0.3 lb NO<sub>x</sub>/mmBtu of actual heat input emission limitation.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A - if applicable. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

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

## **VI. Miscellaneous Requirements**

1. This PTI is a Chapter 31 modification replacing PTI 08-3290 issued June 12, 1996 for emissions unit B005.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005 - 189.6 mmBtu/hour natural gas-fired CB package boiler #3	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

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B006 - 318.5 mmBtu/hour natural gas and No. 2 oil-fired package boiler #4	OAC rule 3745-31-05(A)(3)  OAC rule 3745-17-10(B)(1)  NSPS 40 CFR Part 60 Subpart Db  OAC rule 3745-17-07(A)  OAC rule 3745-18-06(D) when firing No. 2 fuel oil

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<p>Applicable Emissions  <u>Limitations/Control</u>  <u>Measures</u></p>	<p>of actual heat input</p>
<p>0.3 lb SO<sub>2</sub>/mmBtu of actual heat input</p>	<p>0.20 lb nitrogen oxides (NO<sub>x</sub>)/mmBtu of actual heat input, as a 30-day rolling average</p>
<p>26.21 lbs/hour carbon monoxide (CO)</p>	<p>Opacity shall not exceed 20 percent, as a six-minute average, except for one six minute period per hour of no more than 27 percent opacity</p>
<p>1.72 lbs/hour volatile organic compounds (VOC)</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to NSPS 40 CFR Part 60 Subpart Db.</p>
<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-10(B)(1).</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
<p>The requirements of this rule also include compliance with the requirements of NSPS 40 CFR Part 60 Subpart Db.</p>	
<p>1.15 TPY particulates, as a rolling, 12-month summation</p>	
<p>124.3 TPY NO<sub>x</sub>, as a rolling, 12-month summation</p>	
<p>14.78 TPY SO<sub>2</sub>, as a rolling, 12-month summation</p>	
<p>50.7 TPY CO, as a rolling, 12-month summation</p>	
<p>3.32 TPY VOC, as a rolling, 12-month summation</p>	
<p>0.020 lb particulates/mmBtu</p>	

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**2. Additional Terms and Conditions**

- 2.a** The hourly emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

**II. Operational Restrictions**

1. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 627,700 gallons based upon a rolling, 12-month summation of the No. 2 fuel oil usage figures.
2. The maximum annual natural gas usage for this emissions unit shall not exceed 1207 million cubic feet based upon a rolling, 12-month summation of the natural gas usage figures.
3. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.3%, by weight.
4. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

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### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following:
  - a. An identification of each type of fuel burned.
  - b. The amount of each fuel type burned, in gallons for No. 2 fuel oil, and in mmcf for natural gas.
2. The permittee shall maintain monthly records of the following:
  - a. The rolling, 12-month summation of natural gas usage, in mm cubic feet.
  - b. The rolling, 12-month summation of the No. 2 fuel oil usage, in gallons.
  - c. The monthly particulates, NO<sub>x</sub>, SO<sub>2</sub>, CO, and VOC emission rates, in tons. (See Section A.V. for calculation methodology)
  - d. The rolling, 12-month summation of the particulates, NO<sub>x</sub>, SO<sub>2</sub>, CO, and VOC emission rates, in tons.
3. A statement of certification of the existing continuous NO<sub>x</sub> monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
4. The permittee shall operate and maintain existing equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall collect or require the oil supplier to collect a representative grab sample for

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

6. For each day during which the permittee burns a fuel other than natural gas and/or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. All exceedances of the rolling, 12-month natural gas usage limitation.
  - b. All exceedances of the rolling, 12-month No. 2 fuel oil usage limitation.
  - c. All exceedances of the fuel oil sulfur content limitation.
  - d. All exceedances of the rolling, 12-month particulates, NO<sub>x</sub>, SO<sub>2</sub>, CO, and/or VOC emission limitations.

These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).

2. The permittee shall submit quarterly reports that include the following:
  - a. Each 30-day average NO<sub>x</sub> emission rate, calculated during the reporting period, ending with the last 30-day period in the quarter; as well as reasons for any records showing noncompliance with the emission standard and a description of any corrective actions taken.
  - b. An identification of any times when emissions data have been excluded from the calculation of the average emission rate, justification for excluding data and a description of any corrective actions taken if data have been excluded.

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- c. An identification of any times when the pollutant concentration exceeded the full span of the continuous emissions monitoring system.
- d. A description of any modifications to the continuous emissions monitoring system that could affect the ability of the continuous emissions monitoring system to comply with Performance Specifications 2 or 3.
- e. The results of the daily continuous emissions monitoring drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

- 3. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
- 4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- 5. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
- 6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

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7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or No. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## **V. Testing Requirements**

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

- a. Emission Limitation -

0.3 lb SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method -

When firing natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (0.312 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cubic feet, divided by the maximum hourly heat input capacity of the emissions unit (318.5 mmBtu/hour). When firing No. 2 fuel oil, compliance shall be determined by the record keeping and analysis requirements specified in A.III.5., and the use of the equation contained in OAC rule 3745-18-04(F)(2). Compliance can also be based upon the AP-42, Table 1.3-1 (revised 9/98) emission factor of 47.1 lbs SO<sub>2</sub>/1000 gallons of fuel oil burned, divided by the heat content of the fuel oil of 0.137 mmBtu/gallon. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

- b. Emission Limitation -

26.21 lbs CO/hour

Applicable Compliance Method -

When firing natural gas, compliance shall be determined by multiplying the hourly gas

burning capacity of the emissions unit (0.312 mm cubic feet/hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cubic feet. When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (2325 gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 10.

c. Emission Limitation -

1.72 lbs VOC/hour

Applicable Compliance Method -

When firing natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (0.312 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cubic feet. When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (2325 gallons/hour) by the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.2 lb VOC/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 25.

d. Emission Limitation -

1.15 TPY particulates, as a rolling, 12-month summation

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by:

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- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cubic feet, divided by 2000 lbs/ton.
  - ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 2 lbs particulates/1000 gallons, divided by 2000 lbs/ton.
  - iii. the rolling, 12-month particulate emission rate shall be the sum of i and ii above for the rolling, 12-month period.
- e. Emission Limitation -
- 124.3 TPY NO<sub>x</sub>, as a rolling, 12-month summation
- Applicable Compliance Method -
- Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by:
- i. multiplying the natural gas usage for the month by the manufacturer's emission factor of 0.20 lb NO<sub>x</sub>/mmBtu and by the heat content of natural gas, divided by 2000 lbs/ton.
  - ii. multiplying the No. 2 fuel oil usage for the month by the manufacturer's emission factor of 0.20 lb NO<sub>x</sub>/mmBtu and by the heat content of fuel oil, divided by 2000 lbs/ton.
  - iii. the rolling, 12-month NO<sub>x</sub> emission rate shall be the sum of i and ii above for the rolling, 12-month period.
- f. Emission Limitation -
- 14.78 TPY SO<sub>2</sub>, as a rolling, 12-month summation
- Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by:

- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cubic feet, divided by 2000 lbs/ton.
- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 47.1 lbs SO<sub>2</sub>/1000 gallons, divided by 2000 lbs/ton.
- iii. the rolling, 12-month SO<sub>2</sub> emission rate shall be the sum of i and ii above for the rolling, 12-month period.

g. Emission Limitation -

50.7 TPY CO, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by:

- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cubic feet, divided by 2000 lbs/ton.
- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons, divided by 2000 lbs/ton.
- iii. the rolling, 12-month CO emission rate shall be the sum of i and ii above for the rolling, 12-month period.

h. Emission Limitation -

3.32 TPY VOC, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by:

- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cubic feet, divided by 2000

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lbs/ton.

- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.2 lb VOC/1000 gallons, divided by 2000 lbs/ton.
- iii. the rolling, 12-month VOC emission rate shall be the sum of i and ii above for the rolling, 12-month period.

i. Emission Limitation -

0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

When burning natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (0.312 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cubic feet, divided by the maximum hourly heat input capacity of the emissions unit (318.5 mmBtu/hour). When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (2325 gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 2 lbs particulates/1000 gallons, divided by the maximum hourly heat input capacity of the emissions unit (318.5 mmBtu/hour). If required, the permittee shall demonstrate compliance in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(9).

j. Emission Limitation -

0.20 lb NO<sub>x</sub>/mmBtu of actual heat input, as a 30-day rolling average

Applicable Compliance Method -

Compliance shall be based upon the record keeping as specified in Sections A.III.1. and A.III.4.

k. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -

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If required, compliance shall be determined by visible emission evaluations performed using the methods and procedures specified in USEPA Reference Method 9.

## l. Operational Limitation -

627,700 gallons No. 2 fuel oil usage, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2.

## m. Operational Limitation -

1207 mm cubic feet natural gas usage as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2.

## n. Operational Limitation -

fuel oil sulfur content of 0.3% by weight

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Applicable Compliance Method -

Compliance shall be based upon the fuel oil supplier's analysis as specified in A.III.5.

## **VI. Miscellaneous Requirements**

1. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.
2. This PTI is a Chapter 31 modification replacing PTI 08-3290 issued June 12, 1996 for emissions unit B006.

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**Issued: To be entered upon final issuance****B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B006 - 318.5 mmBtu/hour natural gas and No. 2 oil-fired package boiler #4	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

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B009 - 95 mmBtu/hour natural gas and No. 2 fuel oil fired thermal oxidizer	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-10(B)(1)
	OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(D)

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<u>Applicable Emissions Limitations/Control Measures</u>	
0.3 lb SO <sub>2</sub> /mmBtu of actual heat input	2.24 TPY VOC, as a rolling, 12-month summation
9.3 lbs/hour nitrogen oxides (NO <sub>x</sub> )	63.51 TPY particulates from the main stack (See A.I.2.a)
7.82 lbs/hour carbon monoxide (CO)	0.020 lb particulates/mmBtu actual heat input
0.51 lb/hour volatile organic compounds (VOC)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
14.5 lbs/hour particulates from the main stack(See A.I.2.a)	
Opacity shall not exceed 10 percent, as a six-minute average, from the main stack (See A.I.2.a)	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-10(B)(1).	
0.79 TPY particulates, as a rolling, 12-month summation	
8.86 TPY SO <sub>2</sub> , as a rolling, 12-month summation	
40.73 TPY NO <sub>x</sub> , as a rolling, 12-month summation	
34.25 TPY CO, as a rolling, 12-month summation	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The particulate emissions from emissions units B004, B009, P008, P030, P032, P033, P034, P037, P040, P053, P058, P059, P074, P075, and P076 are vented to a common egress point identified as the main stack. The 14.5 lbs/hour and 63.51 TPY particulate emission rates and the 10 percent opacity limitation, as a six-minute average, apply to the common egress point, the main stack.
- 2.b** The hourly emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

**II. Operational Restrictions**

1. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 800 degrees Fahrenheit.
2. The maximum annual No. 2 fuel oil usage for this emissions unit shall not exceed 416,100 gallons based upon a rolling, 12-month summation of the No. 2 fuel oil usage figures.
3. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.3%, by weight.
4. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

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

1. The permittee shall maintain monthly records of the following:
  - a. The No. 2 fuel oil usage, in gallons.
  - b. The natural gas usage, in mm cubic feet.
  - c. The monthly particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission rates, in tons. (See Section A.V. for the calculation methodology)
  - d. The rolling, 12-month summation of the No. 2 fuel oil usage, in gallons.
  - e. The rolling, 12-month summation of the particulates, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emission rates, in tons.

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2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 800 degrees Fahrenheit.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.
  4. For each day during which the permittee burns a fuel other than natural gas and/or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

1. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.
  - b. All exceedances of the rolling, 12-month No. 2 fuel oil usage limitation
  - c. All exceedances of the fuel oil sulfur content limitation.
  - d. All exceedances of the rolling, 12-month emission limitations for particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO and/or VOC.

These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or No. 2 fuel oil was burned in this emissions unit. Each report shall be

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submitted within 30 days after the deviation occurs.

**V. Testing Requirements**

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

- a. Emission Limitation -

0.3 lb SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method -

When firing natural gas, compliance shall be based upon multiplying the hourly gas burning capacity of the emissions unit (0.093 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cubic feet, divided by the maximum hourly heat input capacity of the emissions unit (95 mmBtu/hour). When firing No. 2 fuel oil, compliance shall be based upon the record keeping and analysis requirements specified in A.III.3., and the use of the equation contained in OAC rule 3745-18-04(F)(2). Compliance can also be based upon the AP-42, Table 1.3-1 (revised 9/98) emission factor of 47.1 lbs SO<sub>2</sub>/1000 gallons of fuel oil burned, divided by the heat content of the fuel oil of 0.137 mmBtu/gallon. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

- b. Emission Limitation -

9.3 lbs NO<sub>x</sub>/hour

Applicable Compliance Method -

When firing natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (0.093 mm cubic feet/hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 100 lbs NO<sub>x</sub>/mm cubic feet. When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (693 gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 24 lbs NO<sub>x</sub>/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 7.

- c. Emission Limitation -

7.82 lbs CO/hour

Applicable Compliance Method -

When firing natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (0.093 mm cubic feet/hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cubic feet. When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (693 gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 10.

d. Emission Limitation -

0.51 lb VOC/hour

Applicable Compliance Method -

When firing natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (0.093 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cubic feet. When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (693 gallons/hour) by the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.2 lb VOC/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 25.

e. Emission Limitation -

14.5 lbs/hour particulates from the main stack

Applicable Compliance Method -

Compliance shall be based upon stack testing as specified in A.V.2.

f. Emission Limitation -

10% opacity, as a six-minute average from the main stack

Applicable Compliance Method -

Compliance shall be determined by visible emissions evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

g. Emission Limitation -

0.79 TPY particulates, as a rolling, 12-month summation

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## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by:

- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cubic feet, divided by 2,000 lbs/ton.
- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 2 lbs particulates/1000 gallons, divided by 2,000 lbs/ton.
- iii. the rolling, 12-month particulate emission rate shall be the sum of i and ii above for the rolling, 12-month period.

## h. Emission Limitation -

8.86 TPY SO<sub>2</sub>, as a rolling, 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by:

- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO<sub>2</sub>/mm cubic feet, divided by 2000 lbs/ton.
- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 47.1 lbs SO<sub>2</sub>/1000 gallons, divided by 2000 lbs/ton.
- iii. the rolling, 12-month SO<sub>2</sub> emission rate shall be the sum of i and ii above for the rolling, 12-month period.

## i. Emission Limitation -

Emissions Unit ID: B009

40.73 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by:

- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 100 lbs NO<sub>x</sub>/mm cubic feet, divided by 2000 lbs/ton.
- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 24 lbs NO<sub>x</sub>/1000 gallons, divided by 2000 lbs/ton.
- iii. the rolling, 12-month NO<sub>x</sub> emission rate shall be the sum of i and ii above for the rolling, 12-month period.

j. Emission Limitation -

34.25 TPY CO, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by:

- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cubic feet, divided by 2000 lbs/ton.
- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 5 lbs CO/1000 gallons, divided by 2000 lbs/ton.
- iii. the rolling, 12-month CO emission rate shall be the sum of i and ii above for the rolling, 12-month period.

k. Emission Limitation -

2.24 TPY VOC, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by:

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- i. multiplying the natural gas usage for the month by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cubic feet, divided by 2000 lbs/ton.
- ii. multiplying the No. 2 fuel oil usage for the month by the AP-42, Table 1.3-3 (revised 9/98) emission factor of 0.2 lb VOC/1000 gallons, divided by 2000 lbs/ton.
- iii. the rolling, 12-month VOC emission rate shall be the sum of i and ii above for the rolling, 12-month period.

## l. Emission Limitation -

63.51 TPY particulates, from the main stack

Applicable Compliance Method -

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hours/year and then dividing by 2,000 lbs/ton).

## m. Emission Limitation -

0.020 lb particulates/mmBtu of actual heat input

Applicable Compliance Method -

When firing natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (0.093 mm cubic feet/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cubic feet, divided by the maximum hourly heat input capacity of the emissions unit (95 mmBtu/hour). When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (693 gallons/hour) by the AP-42, Table 1.3-1 (revised 9/98) emission factor of 2 lbs particulates/1000 gallons, divided by the maximum hourly heat input capacity of the emissions unit (95 mmBtu/hour). If required, the permittee shall demonstrate compliance in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

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n. Operational Limitation -

416,100 gallons No. 2 fuel oil as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1.

o. Operational Limitation -

fuel oil sulfur content of 0.3% by weight

Applicable Compliance Method -

Compliance shall be based upon the fuel oil supplier's analysis as specified in A.III.3.

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**PTI Application: 08-04215**  
**Issued**

**Facility ID: 0857041124**

Emissions Unit ID: B009

**VI. Miscellaneous Requirements**

1. This PTI is a Chapter 31 modification replacing PTI 08-3290 issued June 12, 1996 for emissions unit B009.

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PTI A

Emissions Unit ID: B009

**Issued: To be entered upon final issuance****B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B009 - 95 mmBtu/hour natural gas and No. 2 fuel oil-fired thermal oxidizer	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

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Emissions Unit ID: B009

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P057 - NM gluten flash dryer, with venturi scrubber control	OAC rule 3745-31-05(A)(3)  OAC rule 3745-17-07(A)(1) OAC rule 3745-17-11(B)(1)
	OAC rule 3745-31-05(D)

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<u>Applicable Emissions Limitations/Control Measures</u>	
18.24 lbs/hour sulfur dioxide (SO <sub>2</sub> )	rolling, 12-month summation, from the NM gluten flash dryer stack (See A.I.2.a.)  The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
2.65 lbs/hour nitrogen oxides (NO <sub>x</sub> )	
2.18 lbs/hour carbon monoxide (CO)	
0.14 lb/hour volatile organic compounds (VOC)	
2.9 lbs/hour particulates, from the NM gluten flash dryer stack (See A.I.2.a.)	
Opacity shall not exceed 10 percent, as a six-minute average, from the NM gluten flash dryer stack (See A.I.2.a.)	
32.49 tons SO <sub>2</sub> , as a rolling, 12-month summation	
11.61 tons NO <sub>x</sub> , as a rolling, 12-month summation	
9.55 tons CO, as a rolling, 12-month summation	
0.63 ton VOC, as a rolling, 12-month summation	
8.77 tons particulates, as a	

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- 2.a** The particulate emissions from emissions units P026, P031, P052, P057, P066, and P088 are vented to a common egress point identified as the NM gluten flash dryer stack. The 2.9 lbs/hour and 8.77 tons particulates emission rates and the 10 percent opacity limitations, apply to the common egress point, the NM gluten flash dryer stack.
- 2.b** The 18.24 lbs/hour SO<sub>2</sub>, 2.65 lbs/hour NO<sub>x</sub>, 2.18 lbs/hour CO, and 0.14 lb/hour VOC emission limitations were developed for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting to ensure compliance with these limits.

**II. Operational Restrictions**

1. The maximum annual process throughput for this emissions unit shall not exceed 63,510 tons, based upon a rolling, 12-month summation of the process throughputs.
2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 4 inches of water at all times while the emissions unit is in operation.
3. The pH of the scrubber liquor shall be maintained at or above 6.0, as an average per 8-hour shift.
4. The maximum annual fuel oil usage for this emissions unit shall not exceed 66,667 gallons, based upon a rolling, 12-month summation of the fuel oil usage figures.
5. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.3%, by weight.

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

1. The permittee shall maintain monthly records of the following information:
  - a. The process throughput for each month, in tons.
  - b. The rolling, 12-month summation of the process throughputs, in tons.
  - c. The total number of hours the emissions unit was in operation.
  - d. The fuel oil usage for each month, in gallons.
  - e. The rolling, 12-month summation of the fuel oil usage figures, in gallons.

- f. The monthly particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission rates, in tons.
  - g. The rolling, 12-month summation of the particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission rates, in tons.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
  3. The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
  4. The permittee shall collect and record the following information each day:
    - a. The pressure drop across the scrubber, in inches of water, on a once per day basis.
    - b. The pH of the scrubber liquor, on a continuous basis.
    - c. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
  5. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the oil supplier's analysis for sulfur content. The record keeping shall document that the fuel was sampled and analyzed in accordance with approved ASTM procedures.

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

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. All exceedances of the rolling, 12-month process throughput limitation.
  - b. All periods of time during which the static pressure drop across the scrubber was not maintained at or above the required levels.
  - c. All periods of time during which the pH of the scrubber liquor was not maintained at or above the required levels.
  - d. All exceedances of the rolling, 12-month No. 2 fuel oil usage limitation.
  - e. All exceedances of the fuel oil sulfur content limitation.

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- f. All exceedances of the rolling, 12-month particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and/or VOC emission limitations.

These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).

**V. Testing Requirements**

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

- a. Emission Limitation -

18.24 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance shall be determined by the following:

- i. the maximum hourly capacity of the emissions unit (10.5 tons/hour) multiplied by the facility derived emission factor of 0.98 lb SO<sub>2</sub>/ton;
- ii. if fuel oil is combusted, the maximum hourly fuel burning capacity of the dryer (193 gallons/hour) multiplied by the AP-42 Table 1.3-1 (9/98) emission factor of 42.6 lbs SO<sub>2</sub>/1000 gallons;
- iii. the hourly SO<sub>2</sub> emission rate is a sum of i and ii above.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

- b. Emission Limitation -

2.65 lbs/hour NO<sub>x</sub>

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum heat input capacity (26.5 mmBtu/hour) of the emissions unit by the manufacturer's emission factor of 0.1 lb

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**PTI Application: 08 04215**  
**Issued**

**Facility ID: 0857041124**

Emissions Unit ID: P057

NOx/mmBtu. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 7.

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## c. Emission Limitation -

2.18 lbs/hour CO

Applicable Compliance Method -

When burning natural gas, compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.026 mm cu ft/hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cu ft. When burning fuel oil, compliance shall be determined by multiplying the maximum hourly fuel burning capacity of the emissions unit (193 gallons/hour) by the AP-42 Table 1.3-1 (9/98) emission factor of 5 lbs CO/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 10.

## d. Emission Limitation -

0.14 lb/hour VOC

Applicable Compliance Method -

When burning natural gas, compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.026 mm cu ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cu ft. When burning fuel oil, compliance shall be determined by multiplying the maximum hourly fuel burning capacity of the emissions unit (193 gallons/hour) by the AP-42 Table 1.3-3 (9/98) emission factor of 0.34 lb VOC/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 25.

## e. Emission Limitation -

2.9 lbs/hour particulates from the NM gluten flash dryer stack

Applicable Compliance Method -

Compliance shall be based upon stack testing as specified in A.V.2.

## f. Emission Limitation -

10% opacity, as a six-minute average from the NM gluten flash dryer stack

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Applicable Compliance Method -

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

g. Emission Limitation -

32.49 TPY SO<sub>2</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by the following:

- i. the process throughput for the rolling, 12-month period multiplied by the facility derived emission factor of 0.98 lb SO<sub>2</sub>/ton;
- ii. the fuel oil usage for the rolling, 12-month period shall be multiplied by the AP-42 Table 1.3-1 (9/98) emission factor of 42.6 lbs SO<sub>2</sub>/1000 gallons;
- iii. the annual SO<sub>2</sub> emission rate is a sum of i and ii above, divided by 2,000 lbs/ton.

h. Emission Limitation -

11.61 TPY NO<sub>x</sub>, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by the maximum heat input capacity of the dryer (26.5 mmBtu/hour) multiplied by the manufacturer's emission factor of 0.1 lb NO<sub>x</sub>/mmBtu and by the total operating hours for the rolling, 12-month period, divided by 2,000 lbs/ton.

i. Emission Limitation -

9.55 TPY CO, as a rolling, 12-month summation

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by multiplying the hourly limitation of 2.18 lbs/hour by the total operating hours for the rolling, 12-month period, and dividing by 2,000 lbs/ton.

## j. Emission Limitation -

0.63 TPY VOC, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping and shall be determined by multiplying the hourly limitation of 0.14 lb/hour by the total operating hours for the rolling, 12-month period, and dividing by 2,000 lbs/ton.

## k. Emission Limitation -

8.77 TPY particulates, as a rolling, 12-month summation from the NM gluten flash dryer stack

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be the total process throughput for the rolling, 12-month period multiplied by the emission factor determined during the most recent performance test (Until additional testing is performed, the emission factor of 0.276 lb particulates/ton shall be used to demonstrate compliance), and dividing by 2,000 lbs/ton.

## l. Operational Limitation -

63,510 tons process throughput as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1.

## m. Operational Limitation -

66,667 gallons fuel oil, as a rolling, 12-month summation

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in A.III.1.

n. Operational Limitation -

0.3% sulfur, by weight of the fuel oil

Applicable Compliance Method -

Compliance shall be based upon fuel analysis as specified in A.III.5.

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

- a. The emission testing shall be conducted within six months after final issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the 2.9 lbs/hour particulates limitation for the NM gluten flash dryer stack.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while this emissions unit and all emissions units venting to the NM gluten flash dryer stack (See A.I.2.a.) are operating at maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may

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request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**VI. Miscellaneous Requirements**

1. This PTI is a Chapter 31 modification replacing PTI 08-3290 issued June 12, 1996 and modified September 2, 1998 for emissions unit P057.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P057 - NM gluten flash dryer, with venturi scrubber control	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**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-18-06(E)
P072 - Feedhouse gluten flash dryer, with venturi scrubber control	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-31-05(D)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-11(B)(1)	

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Emissions Unit ID: P072

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<u>Applicable Emissions Limitations/Control Measures</u>	emission limitations established pursuant to OAC rule 3745-31- 05(A)(3).
2.9 lbs/hour particulates	
14.20 lbs/hour sulfur dioxide (SO <sub>2</sub> )	
3.3 lbs/hour nitrogen oxides (NO <sub>x</sub> )	
2.72 lbs/hour carbon monoxide (CO)	
0.18 lb/hour volatile organic compounds (VOC)	
8.77 TPY particulates, as a rolling, 12-month summation	
14.53 TPY SO <sub>2</sub> , as a rolling, 12-month summation	
14.45 TPY NO <sub>x</sub> , as a rolling, 12-month summation	
11.91 TPY CO, as a rolling, 12-month summation	
0.79 TPY VOC, as a rolling, 12-month summation	
Opacity shall not exceed 20 percent, as a six-minute average, except as provided by rule	
The emission limitations specified by these rules are less stringent than the	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The hourly limitations were developed for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

**II. Operational Restrictions**

1. The maximum annual process throughput for this emissions unit shall not exceed 63,510 tons, based upon a rolling, 12-month summation of the process throughputs.
2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 4 inches of water at all times while the emissions unit is in operation.
3. The pH of the scrubber liquor shall be maintained at or above 6.0, as an average per 8-hour shift.
4. The maximum annual fuel oil usage for this emissions unit shall not exceed 73,480 gallons, based upon a rolling, 12-month summation of the fuel oil usage figures.
5. The maximum sulfur content of the fuel oil burned in this emissions unit shall not exceed 0.3%, by weight.

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

1. The permittee shall maintain monthly records of the following information:
  - a. The process throughput, in tons.
  - b. The rolling, 12-month summation of the process throughputs, in tons.
  - c. The total number of hours the emissions unit was in operation.
  - d. The fuel oil usage for each month, in gallons.
  - e. The rolling, 12-month summation of the fuel oil usage figures, in gallons.
  - f. The monthly particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission rates, in tons.
  - g. The rolling, 12-month summation of the particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission rates, in tons.

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2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. The permittee shall collect and record the following information each day:
  - a. The pressure drop across the scrubber, in inches of water, on a once per day basis.
  - b. The pH of the scrubber liquor, on a continuous basis.
  - c. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
5. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the oil supplier's analysis for sulfur content. The record keeping shall document that the fuel was sampled and analyzed in accordance with approved ASTM procedures.

**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. All exceedances of the rolling, 12-month process throughput limitation.
  - b. All periods of time during which the static pressure drop across the scrubber was not maintained at or above the required levels.
  - c. All periods of time during which the pH of the scrubber liquor was not maintained at or above the required levels.
  - d. All exceedances of the rolling, 12-month No. 2 fuel oil usage limitation.
  - e. All exceedances of the fuel oil sulfur content limitation.
  - f. All exceedances of the rolling, 12-month particulates, SO<sub>2</sub>, NO<sub>x</sub>, CO, and/or VOC

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**Issued**

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emission limitations.

These reports are due by the date prescribed in Part I - General Terms and Conditions of this permit under section (A)(1).

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Emissions Unit ID: P072

**Issued: To be entered upon final issuance****V. Testing Requirements**

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

a. Emission Limitation -

2.9 lbs/hour particulates

Applicable Compliance Method -

Compliance is based upon the maximum hourly capacity of the emissions unit (10.5 tons/hour) multiplied by the facility derived emission factor of 0.276 lb particulates/ton. If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitation -

14.20 lbs/hour SO<sub>2</sub>

Applicable Compliance Method -

Compliance shall be determined by the following:

i. the maximum hourly capacity of the emissions unit (10.5 tons/hour) multiplied by the facility derived emission factor of 0.41 lb SO<sub>2</sub>/ton;

ii. if fuel oil is combusted, the maximum hourly fuel burning capacity of the dryer (241 gallons/hour) multiplied by the AP-42 Table 1.3-1 (9/98) emission factor of 42.6 lbs SO<sub>2</sub>/1000 gallons;

iii. the hourly SO<sub>2</sub> emission rate is a sum of i and ii above.

If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 6.

c. Emission Limitation -

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3.3 lbs/hour NOx

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum heat input capacity (33 mmBtu/hour) of the emissions unit by the manufacturer's emission factor of 0.1 lb NOx/mmBtu. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 7.

## d. Emission Limitation -

2.72 lbs/hour CO

Applicable Compliance Method -

When burning natural gas, compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.032 mm cu ft/hour) by the AP-42, Table 1.4-1 (revised 7/98) emission factor of 84 lbs CO/mm cu ft. When burning fuel oil, compliance shall be determined by multiplying the maximum hourly fuel burning capacity of the emissions unit (241 gallons/hour) by the AP-42 Table 1.3-1 (9/98) emission factor of 5 lbs CO/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 10.

## e. Emission Limitation -

0.18 lb/hour VOC

Applicable Compliance Method -

When burning natural gas, compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.032 mm cu ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs VOC/mm cu ft. When burning fuel oil, compliance shall be determined by multiplying the maximum hourly fuel burning capacity of the emissions unit (241 gallons/hour) by the AP-42 Table 1.3-3 (9/98) emission factor of 0.34 lb VOC/1000 gallons. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Method 25.

## f. Emission Limitation -

8.77 TPY particulates, as a rolling, 12-month summation

Emissions Unit ID: P072

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be the total process throughput for the rolling, 12-month period multiplied by the facility derived emission factor of 0.276 lb particulates/ton, divided by 2,000 lbs/ton.

## g. Emission Limitation -

14.53 TPY SO<sub>2</sub>, as a rolling, 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by the following:

- i. the process throughput for the rolling, 12-month period multiplied by the facility derived emission factor of 0.41 lb SO<sub>2</sub>/ton;
- ii. the fuel oil usage for the rolling, 12-month period shall be multiplied by the AP-42 Table 1.3-1 (9/98) emission factor of 42.6 lbs SO<sub>2</sub>/1000 gallons;
- iii. the annual SO<sub>2</sub> emission rate is a sum of i and ii above, divided by 2,000 lbs/ton.

## h. Emission Limitation -

14.45 TPY NO<sub>x</sub>, as a rolling, 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by the maximum heat input capacity of the dryer (33 mmBtu/hour) multiplied by the manufacturer's emission factor of 0.1 lb NO<sub>x</sub>/mmBtu and by the total operating hours for the rolling, 12-month period, divided by 2,000 lbs/ton.

## i. Emission Limitation -

11.91 TPY CO, as a rolling, 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined by multiplying the hourly limitation of 2.72 lbs/hour by the total operating hours for the rolling, 12-month period, and dividing by 2,000 lbs/ton.

## j. Emission Limitation -

**Cargil**

**PTI A**

Emissions Unit ID: P072

**Issued: To be entered upon final issuance**

0.79 TPY VOC, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping and shall be determined by multiplying the hourly limitation of 0.18 lb/hour by the total operating hours for the rolling, 12-month period, and dividing by 2,000 lbs/ton.

k. Emission Limitation -

20% opacity, as a six-minute average

**Issued: To be entered upon final issuance**

Applicable Compliance Method -

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

l. Operational Limitation -

63,510 tons process throughput as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1.

m. Operational Limitation -

73,480 gallons fuel oil, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1.

n. Operational Limitation -

0.3% sulfur, by weight of the fuel oil

Applicable Compliance Method -

Compliance shall be based upon fuel analysis as specified in A.III.5.

**VI. Miscellaneous Requirements**

1. This PTI is a Chapter 31 modification replacing PTI 08-3290 issued June 12, 1996 and modified September 2, 1998 for emissions unit P072.

**Cargil  
PTI A**

Emissions Unit ID: P072

**Issued: To be entered upon final issuance**

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P072 - Feedhouse gluten flash dryer, with venturi scrubber control	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

**Cargil  
PTI A**

Emissions Unit ID: P088

**Issued: To be entered upon final issuance**

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P088 - North Mill Germ steam tube dryer #1 venting to emissions unit P057	OAC rule 3745-31-05(A)(3)	2.9 lbs/hour particulates, from the NM gluten flash dryer stack (See A.I.2.a)
	OAC rule 3745-31-05(D)	Opacity shall not exceed 10 percent, as a six-minute average, from the NM gluten flash dryer stack (See A.I.2.a)
	OAC rule 3745-17-07(A)(1) OAC rule 3745-17-11(B)(1)	8.77 TPY particulates, as a rolling, 12-month summation, from the NM gluten flash dryer stack (See A.I.2.a)
		The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a The particulate emissions from emissions units P026, P031, P052, P057, P066 and P088 are vented to a common egress point identified as the NM gluten flash dryer stack. The 2.9 lbs/hour and 8.77 TPY particulate emission rates and the 10 percent opacity limitation, as a six-minute average, apply to the common egress point, the NM gluten flash dryer stack.
- 2.b The emissions from emissions unit P088 are directed to emissions unit P057, which vents through a scrubber control device and out of the NM gluten flash dryer stack. The

Emissions Unit ID: P088

scrubber monitoring requirements are contained in the terms and conditions for emissions unit P057.

## **II. Operational Restrictions**

1. The maximum annual process throughput for this emissions unit shall not exceed 179,580 tons, based upon a rolling, 12-month summation of the process throughputs.

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

1. The permittee shall maintain monthly records of the following information:
  - a. The process throughput for each month, in tons.
  - b. The monthly particulate emission rate from the NM gluten flash dryer stack, in tons.
  - c. The rolling, 12-month summation of the process throughputs, in tons.
  - d. The rolling, 12-month summation of the particulate emission rate from the NM gluten flash dryer stack, in tons.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month process throughput limitation and/or the rolling, 12-month particulate emission rate from the NM gluten flash dryer stack. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

## **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation -  
 2.9 lbs/hour particulates from the NM gluten flash dryer stack  
 Applicable Compliance Method -  
 Compliance shall be based upon stack testing as specified in A.V.2.
  - b. Emission Limitation -  
 10% opacity, as a six-minute average from the NM gluten flash dryer stack  
 Applicable Compliance Method -

**Issued: To be entered upon final issuance**

Compliance shall be determined by visible emissions evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

## c. Emission Limitation -

8.77 TPY particulates, as a rolling, 12-month summation from the NM gluten flash dryer stack

Applicable Compliance Method -

Compliance shall be determined by multiplying the sum of the process throughputs to the NM gluten flash dryer for the rolling, 12-month period by the emission factor determined during the most recent performance test (Until additional testing is performed, the emission factor of 0.276 lb particulates/ton shall be used to determine compliance), divided by 2,000 lbs/ton.

## d. Operating Limitation -

179,580 tons process throughput, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within six months after final issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the 2.9 lbs/hour particulates limitation for the NM gluten flash dryer stack.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while this emissions unit and all emissions units venting to

**Cargill Inc - Dayton**  
**PTI Application: 08 04215**  
**Issued**

**Facility ID: 0857041124**

Emissions Unit ID: P088

the NM gluten flash dryer stack are operating at maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

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

## **VI. Miscellaneous Requirements**

None

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**Cargil**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P088

**Cargil  
PTI A**

Emissions Unit ID: P088

**Issued: To be entered upon final issuance**

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P088 - North Mill Germ steam tube dryer #1 venting to emissions unit P057	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

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04215 Facility ID: 0857041124

FACILITY NAME Cargill Inc - Dayton

FACILITY DESCRIPTION wet corn milling CITY/TWP Dayton

SIC CODE 2046 SCC CODE 1-02-002-02 EMISSIONS UNIT ID B004

EMISSIONS UNIT DESCRIPTION 567 mmBtu/hour pulverized dry bottom coal-fired boiler with natural gas and No. 2 fuel oil as supplemental fuels; with baghouse control

DATE INSTALLED July 1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	14.5 lbs/hour (main stack)	63.5 (main stack)	14.5 lbs/hour (main stack)	63.5 (main stack)
PM <sub>10</sub>					
Sulfur Dioxide	attainment	1.20 lbs/mmBtu	2980.2	1.20 lbs/mmBtu	2980.2
Volatile Organic Compounds	attainment	1.32 lbs/hour	5.78	1.32 lbs/hour	5.78
Nitrogen Oxides	attainment	0.7 lb/mmBtu	1037.3	0.7 lb/mmBtu	1037.3
Carbon Monoxide	attainment	11 lbs/hour	48.2	11 lbs/hour	48.2
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? **Subpart D** PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

**BAT is compliance with the applicable OAC rules and specified allowable emission rates; use of a fabric filter control system; continuous monitoring, record keeping, and reporting.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES X NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04215 Facility ID: 0857041124

FACILITY NAME Cargill Inc - Dayton

FACILITY DESCRIPTION wet corn milling

CITY/TWP Davton

Emissions Unit ID: P088

SIC CODE 2046 SCC CODE 1-02-006-01 EMISSIONS UNIT ID B005

EMISSIONS UNIT DESCRIPTION 189.6 mmBtu/hour natural gas-fired CB package boiler #3

DATE INSTALLED 1984

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.020 lb/mmBtu	0.45	0.020 lb/mmBtu	0.45
PM <sub>10</sub>					
Sulfur Dioxide	attainment	0.11 lb/hour	0.14	0.11 lb/hour	0.14
Volatile Organic Compounds	attainment	1.02 lbs/hour	1.29	1.02 lbs/hour	1.29
Nitrogen Oxides	attainment	0.30 lb/mmBtu	71.91	0.30 lb/mmBtu	71.91
Carbon Monoxide	attainment	15.62 lbs/hour	19.74	15.62 lbs/hour	19.74
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS?

NESHAP?

PSD?

OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**BAT is compliance with the applicable OAC rules and specified allowable emission rates; natural gas usage limitation; record keeping; reporting.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES X NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04215 Facility ID: 0857041124

FACILITY NAME Cargill Inc - Dayton

FACILITY DESCRIPTION wet corn milling CITY/TWP Davton

Emissions Unit ID: P088

SIC CODE 2046 SCC CODE 1-02-006-01 EMISSIONS UNIT ID B006

EMISSIONS UNIT DESCRIPTION 318.5 mmBtu/hour natural gas and No. 2 oil-fired package boiler #4

DATE INSTALLED July 1990

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.020 lb/mmBtu	1.15	0.020 lb/mmBtu	1.15
PM <sub>10</sub>					
Sulfur Dioxide	attainment	0.3 lb/mmBtu	14.78	0.3 lb/mmBtu	14.78
Volatile Organic Compounds	attainment	1.72 lbs/hour	3.32	1.72 lbs/hour	3.32
Nitrogen Oxides	attainment	0.20 lb/mmBtu	124.3	0.20 lb/mmBtu	124.3
Carbon Monoxide	attainment	26.21 lbs/hour	50.7	26.21 lbs/hour	50.7
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS? NESHAP? **Subpart Db** PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**BAT is compliance with the applicable OAC rules and specified allowable mass emission rates; natural gas and fuel oil usage limitations; record keeping; reporting.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No  
 OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES X NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04215 Facility ID: 0857041124

FACILITY NAME Cargill Inc - Dayton

FACILITY DESCRIPTION wet corn milling

CITY/TWP Davton

Emissions Unit ID: P088

SIC CODE 2046 SCC CODE 1-02-006-02 EMISSIONS UNIT ID B009

EMISSIONS UNIT DESCRIPTION 95 mmBtu/hour thermal oxidizer

DATE INSTALLED July 1979

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.020 lb/mmBtu	0.79	0.020 lb/mmBtu	0.79
PM <sub>10</sub>					
Sulfur Dioxide	attainment	0.3 lb/mmBtu	8.86	0.3 lb/mmBtu	8.86
Volatile Organic Compounds	attainment	0.51 lb/hour	2.24	0.51 lb/hour	2.24
Nitrogen Oxides	attainment	9.3 lbs/hour	40.73	9.3 lbs/hour	40.73
Carbon Monoxide	attainment	7.82 lbs/hour	34.25	7.82 lbs/hour	34.25
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**BAT is compliance with the applicable OAC rules and specified allowable mass emission rates; No. 2 fuel oil usage limitation; record keeping; and reporting.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES X NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04215 Facility ID: 0857041124

FACILITY NAME Cargill Inc - Dayton

FACILITY DESCRIPTION wet corn milling CITY/TWP Davton

Emissions Unit ID: P088

SIC CODE 2046 SCC CODE 3-02-007-54 EMISSIONS UNIT ID P072

EMISSIONS UNIT DESCRIPTION Feedhouse gluten flash dryer, with venturi scrubber control

DATE INSTALLED September 1997

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	2.9 lbs/hour	8.77	2.9 lbs/hour	8.77
PM <sub>10</sub>					
Sulfur Dioxide	attainment	14.20 lbs/hour	14.53	14.20 lbs/hour	14.53
Volatile Organic Compounds	attainment	0.18 lb/hour	0.79	0.18 lb/hour	0.79
Nitrogen Oxides	attainment	3.3 lbs/hour	14.45	3.3 lbs/hour	14.45
Carbon Monoxide	attainment	2.72 lbs/hour	11.91	2.72 lbs/hour	11.91
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**BAT is compliance with applicable OAC rules and specified allowable mass emission rates; scrubber control and monitoring; fuel oil limitations; record keeping; reporting.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No  
 OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES X NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04215 Facility ID: 0857041124

FACILITY NAME Cargill Inc - Dayton

FACILITY DESCRIPTION wet corn milling CITY/TWP Davton

Emissions Unit ID: P088

SIC CODE 2046 SCC CODE 3-02-007-54 EMISSIONS UNIT ID P088

EMISSIONS UNIT DESCRIPTION North Mill Germ steam tube dryer #1 venting to emissions unit P057

DATE INSTALLED April 2001

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	2.9 lbs/hour from the NM gluten flash dryer stack	8.77 from the NM gluten flash dryer stack	2.9 lbs/hour from the NM gluten flash dryer stack	8.77 from the NM gluten flash dryer stack
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**BAT is compliance with applicable OAC rules and specified allowable mass emission rates; scrubber control and monitoring; record keeping; and reporting.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No  
 OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES X NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04215

Facility ID: 0857041124

FACILITY NAME Cargill Inc - Dayton

FACILITY DESCRIPTION facility boiler system, feedhouse operations, north CITY/TWP Dayton

Emissions Unit ID: P088

SIC CODE 2046

SCC CODE 3-02-007-54

EMISSIONS UNIT ID P057

EMISSIONS UNIT DESCRIPTION NM gluten flash dryer, with venturi scrubber control

DATE INSTALLED July 1989

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	2.9 lbs/hour from the NM gluten flash dryer stack	8.77 TPY from the NM gluten flash dryer stack	2.9 lbs/hour from the NM gluten flash dryer stack	8.77 TPY from the NM gluten flash dryer stack
PM <sub>10</sub>					
Sulfur Dioxide	attainment	18.24 lbs/hour	32.49	18.24 lbs/hour	32.49
Volatile Organic Compounds	attainment	0.14 lb/hour	0.63	0.14 lb/hour	0.63
Nitrogen Oxides	attainment	2.65 lbs/hour	11.61	2.65 lbs/hour	11.61
Carbon Monoxide	attainment	2.18 lbs/hour	9.55	2.18 lbs/hour	9.55
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**BAT is compliance with applicable OAC rules and specified allowable mass emission rates; scrubber control and monitoring; fuel oil limitations; record keeping; reporting.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: