State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
SUMMIT COUNTY

Street Address: Mailing Address: Lazarus Gov. Center
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Application No: 16-02110

DATE: 8/28/2001

Norton Energy Storage
Dennis Hockenbury
20445 State Hwy 249 Suite 230
Houston, TX 770702616

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

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Very truly yours,

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

CC: **USEPA** **ARAQMD**
Alan Lloyd **NSR group - OEPA/Central Office**

FINAL PERMIT TO INSTALL 16-02110

Application Number:	16-02110
APS Premise Number:	1677100033
Permit Fee:	**$22200**
Name of Facility:	Norton Energy Storage
Person to Contact:	Dennis Hockenbury
Address:	20445 State Hwy 249 Suite 230 Houston, TX 770702616

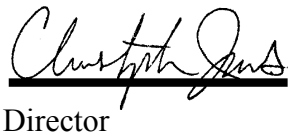
Location of proposed air contaminant source(s) [emissions unit(s)]:
3700 Limestone Dr
Norton, Ohio

Description of proposed emissions unit(s):
Electrical Power Generation using Nine (9) Combustion Turbine Units at 300 MW each.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Director

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

calendar quarters. See B.10 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

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

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are

required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

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

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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

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

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).

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

Pollutant	Tons Per Year
NOx	362.5
SO2	48.2
CO	1779.2
VOC	148.2
PM	318.5
NH3	374.4
formaldehyde	9.86
sulfuric acid mist	4.77

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

The emissions of Hazardous Air Pollutants (HAPs), as defined in Section 112(b) of the Clean Air Act, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility combined, shall not exceed 9.86 tons per year for an individual HAP(formaldehyde) and 25 tons per year for any combination of HAPs*, per rolling 12 month period.

Since the restricted potential to emit for all HAPs is less than 25 tons, no monitoring, record keeping, or reporting requirements are necessary to meet this limit.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
Fuel Supply Heater #1 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
	40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
	40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.063 lb/hr, and 0.13 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0.95 VOC - 0.13 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040084 lb/MMBtu actual heat input 096 lb/hr, and 2.0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B001 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B001, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions

unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.
(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040084 lb/MMBtu actual heat input
096 lb/hr, and 2.0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #1 - 11.45 MMBtu/hr natural gas-fired boiler	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: B002

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #2 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0.95 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.040084 lb/MMBtu actual heat input 096 lb/hr, and 2.0.95 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per year	
particulate matter (PM) emissions shall not exceed	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B002 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B002, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu
lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)

$= 1.71x10^{-6}$ lb SO_2 / scf

$(1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.040084 lb/MMBtu actual heat input
096 lb/hr, and 2.0.95 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.040084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0

VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #2 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #3 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.063 lb/hr, and 0.13 ton per year
	particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year
	visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average
	Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The emission limitations specified by these rules are less stringent than those established above
	The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0 VOC - 0.13
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	See A.IV.6 below.
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 0.96 lb/hr, and 2.0 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B003 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B003, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr

Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
0.96 lb/hr, and 2.0 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0

VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #3 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #4 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.063 lb/hr, and 0.13 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0 VOC - 0.13 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 0.96 lb/hr, and 2.0ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B004 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B004, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. **PSD REQUIREMENTS**

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
0.96 lb/hr, and 2.0 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor

for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18

CO - 2.0
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #4 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #5 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.063 lb/hr, and 0.13 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0 VOC - 0.13 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 0.96 lb/hr, and 2.0 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B005 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B005, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions

unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr

Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
0.96 lb/hr, and 2.0 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

$(5.5\ lb / 10^6\ scf)*(scf / 1000\ Btu)*(10^6\ Btu / MMBtu) = 0.006\ lb/MMBtu$

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 $lb/10^6$ scf.

$(7.6\ lb / 10^6\ scf)*(scf / 1000\ Btu)*(10^6\ Btu / MMBtu) = 0.008\ lb/MMBtu$

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record

keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #5 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #6 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.063 lb/hr, and 0.13 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0 VOC - 0.13 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 0.96 lb/hr, and 2.0 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B006 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B006, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions

unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
0.96 lb/hr, and 2.0 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr

Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0
VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #6 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #7 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0 VOC - 0.13 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 0.96 lb/hr, and 2.0 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.063 lb/hr, and 0.13 ton per year	
particulate matter (PM) emissions shall not exceed	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B007 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B007, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)

$= 1.71x10^{-6}$ lb SO_2 / scf

$(1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
0.96 lb/hr, and 2.0 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0

VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B007

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #7 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #8 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.063 lb/hr, and 0.13 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0 VOC - 0.13 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 0.96 lb/hr, and 2.0 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B008 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B008, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr

Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
0.96 lb/hr, and 2.0 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0

VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #8 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Fuel Supply Heater #9 - 11.45 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60, subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 Subpart Dc.	0.063 lb/hr, and 0.13 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.087 lb/hr, and 0.18 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 2.24 SO_2 - 0.04 PM - 0.18 CO - 2.0 VOC - 0.13 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 1.076 lb/hr, and 2.24 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.021 lb/hr, and 0.04 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 0.96 lb/hr, and 2.0 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual cumulative fuel heat input of emissions unit B009 shall not exceed 47,630 MMBtu, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	8,245
1 - 2	16,487
1 - 3	24,310
1 - 4	32,974
1 - 5	41,220
1 - 6	47,630
1 - 7	47,630
1 - 8	47,630
1 - 9	47,630
1 - 10	47,630
1 - 11	47,630
1 - 12	47,630

After the first 12 calendar months following the startup of emissions unit B009, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. fuel quantity, in cubic feet;

b. heating value of fuel, in MMBtu; and

c.beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the cumulative heat input.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic feet. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. **PSD REQUIREMENTS**

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
1.076 lb/hr, and 2.24 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 1.076 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (1.076 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.021 lb/hr, and 0.04 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr

Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.021 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.021 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
0.96 lb/hr, and 2.0 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.96 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (0.96 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.063 lb/hr, and 0.13 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.063 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.063 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.087 lb/hr, and 0.18 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (11.45 MMBtu/hr). The resulting value is 0.087 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.087 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 2.24
SO_2 - 0.04
PM - 0.18
CO - 2.0

VOC - 0.13

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Fuel Supply Heater #9 - 11.45 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #1 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B010 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B010, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu

Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008
PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #1 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #2 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B011 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B011, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008
PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #2 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #3 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.244 lb/hr, and 0.024 ton per year	
particulate matter (PM) emissions shall not exceed	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B012 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B012, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= $1.71x10^{-6}$ lb SO_2 / scf

($1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu

Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008

PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #3 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #4 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B013 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B013, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. **PSD REQUIREMENTS**

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

Emissions Unit ID: B013

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr

Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor

for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008
PM - 0.034

CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #4 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #5 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B014 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B014, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu

Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008

PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #5 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #6 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B015 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B015, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu

Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008
PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #6 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #7 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B016 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B016, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States

Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6. The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008
PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #7 - 44.3 MMBtu/hr natural gas-fired boiler	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)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #8 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A) 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)

	Applicable Emissions Limitations/Control Measures	
		those established above
40 CFR 60 subpart Dc	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc. nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input 0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than	The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B017 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B017, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. **PSD REQUIREMENTS**

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

$(1.71x10^{-6}$ lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu

Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42

SO_2 - 0.008
PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #8 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Recuperator Pre-heater #9 - 44.3 MMBtu/hr natural gas-fired boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(A)
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		40 CFR 60 subpart Dc

Applicable Emissions Limitations/Control Measures	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B)(1), OAC rule 3745-18-06(A), OAC 3745-31- (13) thru (20), 40 CFR 52.21, and 40 CFR 60 subpart Dc.	0.244 lb/hr, and 0.024 ton per year particulate matter (PM) emissions shall not exceed 0.008 lb/MMBtu actual heat input 0.337 lb/hr, and 0.034 ton per year visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average Operational restriction, see A.II.1 below. The emission limitations specified by these rules are less stringent than those established above The tons per rolling 12-month period shall not exceed : NOx - 0.42 SO_2 - 0.008 PM - 0.034 CO - 0.37 VOC - 0.024 See A.IV.6 below.
nitrogen oxide (NO_x) emissions shall not exceed 0.094 lb/MMBtu actual heat input 4.16 lbs/hr, and 0.42 ton per year	
sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/MMBtu actual heat input 0.08 lb/hr, and 0.008 ton per year	
carbon monoxide (CO) emissions shall not exceed 0.084 lb/MMBtu actual heat input 3.72 lbs/hr, and 3.35 ton per year	
volatile organic compounds (VOC) emissions shall not exceed 0.006 lb/MMBtu actual heat input	

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emission unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. The maximum annual hours of operation of emissions unit B018 shall not exceed 200 hours, based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit the permittee shall not exceed the monthly hours of operation restrictions specified in the following table:

Month	Cumulative hours of Operation
1	40
1 - 2	80
1 - 3	120
1 - 4	160
1 - 5	200
1 - 6	200
1 - 7	200
1 - 8	200
1 - 9	200
1 - 10	200
1 - 11	200
1 - 12	200

After the first 12 calendar months following the startup of emissions unit B018, compliance with the annual hours of operation restriction shall be based on a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. 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

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in

the emission unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain monthly records of the following information for each emissions unit:

a. hours of operation of the boiler; and

b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation.

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

4.The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

IV. Reporting Requirements

1. 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.

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

4. The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

5. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

6.The permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.70. This notification shall include:

a. the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

b. if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under Sec. 60.42c, or Sec. 60.43c;

c. the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired; and

d.notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of Sec. 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

nitrogen oxide (NOx) emissions shall not exceed
0.094 lb/MMBtu actual heat input
4.16 lbs/hr, and 0.42 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 94 lb/10^6 scf.

(94 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.094 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.094 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 4.16 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly NOx emission rate (4.16 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

b. Emission Limitation:

sulfur dioxide (SO_2) emissions shall not exceed
0.002 lb/MMBtu actual heat input
0.08 lb/hr, and 0.008 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated based on the record keeping requirements of section A.III.2 and the following methodology:

(0.6 grains S / 100 scf)*(1 lb S / 7,000 grains S)*(64 lb SO_2 / 32 lb S)
= 1.71×10^{-6} lb SO_2 / scf

(1.71×10^{-6} lb SO_2 / scf)*(scf / 1000 Btu)*(10^6 / MMBtu) = 0.002 lb SO_2 / MMBtu

lb/hr
Multiply the converted worst case emission factor of 0.002 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.08 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly SO_2 emission rate (0.08 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

c. Emission Limitation:

carbon monoxide (CO) emissions shall not exceed
0.084 lb/MMBtu actual heat input
3.72 lb/hr, and 0.37 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-1] emission factor for natural gas combustion of 84 lb/10^6 scf.

(84 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.084 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.084 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 3.72 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly CO emission rate (3.72 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

d. Emission Limitation:

volatile organic compounds (VOC) emissions shall not exceed
0.006 lb/MMBtu actual heat input
0.244 lb/hr, and 0.024 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 5.5 lb/10^6 scf.

(5.5 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.006 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.006 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.244 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly VOC emission rate (0.244 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

e. Emission Limitation:

particulate matter (PM) emissions shall not exceed
0.008 lb/MMBtu actual heat input
0.337 lb/hr, and 0.034 ton per year

Applicable Compliance Method:

lb/MMBtu
Compliance shall be demonstrated using the AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion of 7.6 lb/10^6 scf.

(7.6 lb / 10^6 scf)*(scf / 1000 Btu)*(10^6 Btu / MMBtu) = 0.008 lb/MMBtu

lb/hr
Multiply the converted AP-42 emission factor of 0.008 lb/MMBtu by the maximum Btu input rate (44.3 MMBtu/hr). The resulting value is 0.337 lbs/hr.

tons per year
Compliance shall be demonstrated by multiplying the hourly PM emission rate (0.337 lb/hr) by actual hours/year and dividing by 2000 lb/ton.

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed :
NOx - 0.42
SO_2 - 0.008
PM - 0.034
CO - 0.37
VOC - 0.024

Applicable Compliance Method:

Compliance with the above limitations shall be demonstrated based upon the record keeping requirements of section A.III.3.

g. Emission Limitation:

visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average

Applicable Compliance Method:

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit ID: B018

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Recuperator Pre-heater #9 - 44.3 MMBtu/hr natural gas-fired boiler	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #1 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B), OAC rule 3745-17-08(B), OAC 3745-31- (13) thru (20), and 40 CFR 52.21. particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year
	OAC rule 3745-17-07(B)	10% opacity as a 3-minute average (fugitive emissions)
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than that established above.
	OAC 3745-31- (13) thru (20), and 40 CFR 52.21.	See section A.II.1 below. The tons per rolling 12-month period shall not exceed : PM - 24.6 tons per year

2. Additional Terms and Conditions

2.a The 5.62 lbs/hr limitation was 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 this limit.

II. Operational Restrictions

1.The permittee shall employ mist eliminators to minimize drift from the cooling tower.

III. Monitoring and/or Recordkeeping Requirements

1.PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 5.62 lb/hr PM limitation.

2. The permittee shall submit deviation reports as specified in Part I - General Terms and Conditions of this permit under section (A)(2).

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:**

particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the procedures from AP-42, Section 13.4 (1/95).

PM emissions (lb/hr) = WCR * Drift * TDS * [(3.78L/gal)*(2.20E-06 lb/mg)*(60min/hr)]

Where:

WCR = maximum water circulation rate, 749,342 gpm (based on compression phase for turbines)
Drift = 0.0005%
TDS = total dissolved solids, 3,000mg/L

Compliance with the annual limitation shall be demonstrated by multiplying the hourly PM emissions rate by actual hours/year and dividing by 2,000 lb/ton.

b. **Emission Limitation:**

10% opacity as a 3-minute average (fugitive emissions)

Applicable Compliance Method:

OAC rule 3745-17-03(B)(3)

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #1 - induced draft mechanical wet cooling tower	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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #2 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B), OAC rule 3745-17-08(B), OAC 3745-31- (13) thru (20), and 40 CFR 52.21. particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year
	OAC rule 3745-17-07(B)	10% opacity as a 3-minute average (fugitive emissions)
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than that established above.
	OAC 3745-31- (13) thru (20), and 40 CFR 52.21..	See section A.II.1 below. The tons per rolling 12-month period shall not exceed : 24.6 tons per year

2. Additional Terms and Conditions

2.a The 5.62 lbs/hr limitation was 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 this limit.

II. Operational Restrictions

1.The permittee shall employ mist eliminators to minimize drift from the cooling tower.

III. Monitoring and/or Recordkeeping Requirements

1.PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 5.62 lb/hr PM limitation.

2. The permittee shall submit deviation reports as specified in Part I - General Terms and Conditions of this permit under section (A)(2).

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:**

particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the procedures from AP-42, Section 13.4 (1/95).

PM emissions (lb/hr) = WCR * Drift * TDS * [(3.78L/gal)*(2.20E-06 lb/mg)*(60min/hr)]

Where:

WCR = maximum water circulation rate, 749,342 gpm (based on compression phase for turbines)
Drift = 0.0005%
TDS = total dissolved solids, 3,000mg/L

Compliance with the annual limitation shall be demonstrated by multiplying the hourly PM emissions rate by actual hours/year and dividing by 2,000 lb/ton.

b. **Emission Limitation:**

10% opacity as a 3-minute average (fugitive emissions)

Applicable Compliance Method:

OAC rule 3745-17-03(B)(3)

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #2 - induced draft mechanical wet cooling tower	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: F003

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #3 - induced draft mechanical wet cooling tower	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B), OAC rule 3745-17-08(B), OAC 3745-31- (13) thru (20), and 40 CFR 52.21. particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year
	OAC rule 3745-17-07(B)	10% opacity as a 3-minute average (fugitive emissions)
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than that established above.
	OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D)	See section A.II.1 below. The tons per rolling 12-month period shall not exceed : PM - 24.6 tons per year

2. Additional Terms and Conditions

2.a The 5.62 lbs/hr limitation was 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 this limit.

II. Operational Restrictions

1.The permittee shall employ mist eliminators to minimize drift from the cooling tower.

III. Monitoring and/or Recordkeeping Requirements

1.**PSD REQUIREMENTS**

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 5.62 lb/hr PM limitation.

2. The permittee shall submit deviation reports as specified in Part I - General Terms and Conditions of this permit under section (A)(2).

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:**

particulate matter (PM) emissions shall not exceed 5.62 lb/hr and 24.6 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the procedures from AP-42, Section 13.4 (1/95).

PM emissions (lb/hr) = WCR * Drift * TDS * [(3.78L/gal)*(2.20E-06 lb/mg)*(60min/hr)]

Where:

WCR = maximum water circulation rate, 749,342 gpm (based on compression phase for turbines)
Drift = 0.0005%
TDS = total dissolved solids, 3,000mg/L

Compliance with the annual limitation shall be demonstrated by multiplying the hourly PM emissions rate by actual hours/year and dividing by 2,000 lb/ton.

b. **Emission Limitation:**

10% opacity as a 3-minute average (fugitive emissions)

Applicable Compliance Method:

OAC rule 3745-17-03(B)(3)

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Cooling Tower #3 - induced draft mechanical wet cooling tower	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

Facility ID: **1677100033**

Emissions Unit ID: F003

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #1 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
OAC Rule 3745-31-05 (A)(3)		OAC rule 3745-31- 05(D) 40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F)	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.		formaldehyde emissions shall not exceed 0.472 lbs/hr
Emission limits without duct burner firing	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	formaldehyde emissions shall not exceed 0.4512 lbs/hr	Startup and shutdown emissions (also see A.II.2.)
PM emissions shall not exceed 12.0 lbs/hr	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	Emission limits with duct burner firing (limited to 4,160 hours per year)	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	PM emissions shall not exceed 13.0 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
		carbon monoxide (CO) emissions shall not exceed 195.4 tons per year

volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3 The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	
formaldehyde emissions shall not exceed 1.096 tons per year	See section A.I.2.c below.
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34

CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P001 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P001, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section

3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to

the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct

burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency

Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the

Emissions Unit ID: P001

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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These

reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

    The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

    a. operating load and operating settings of duct burners; and

    b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation:

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation:

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation:

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee

shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + ∑ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Emissions Unit ID: P001

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P001 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #1 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P001) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the

modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters

used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #2 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		OAC Rule 3745-17-07(A) 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		
	40 CFR part 60, Subpart GG	
OAC Rule 3745-31-05 (A)(3)	OAC rule 3745-18-06(F) 40 CFR part 60, Subpart Db OAC Rule 3745-17-11 (B)(4)	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), OAC 3745-31-05(D), 40 CFR 52.21, 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	20.0 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
Emission limits without duct burner firing	Emission limits with duct burner firing (limited to 4,160 hours per year)	Startup and shutdown emissions (also see A.II.2.)
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
		carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
PM emissions shall not exceed 12.0 lbs/hr	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
		formaldehyde emissions shall not exceed 0.1132 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
	ammonia (NH3) emissions shall not exceed	sulfur dioxide (SO_2) shall not exceed

5.30 tons per year	
carbon monoxide (CO) emissions shall not exceed 195.4 tons per year	The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3
volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	The tons per rolling 12-month period shall not exceed
ammonia (NH3) emissions shall not exceed 41.6 tons per year	formaldehyde - 1.096 See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	See section A.I.2.c below.
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2.

3. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or

shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

4. The maximum cumulative fuel heat input for emissions unit P002 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P002, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

5. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

6. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

7. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District

Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

8. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

10. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the

final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit

malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

a. operating load and operating settings of duct burners; and

b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40

CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. <u>Emission Limitation</u>

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing

37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed

4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing

0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P002 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

Emissions Unit ID: P002

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #2 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P002) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of

Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #3 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
OAC Rule 3745-31-05 (A)(3)		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	20.0 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
		Startup and shutdown emissions (also see A.II.2.)
Emission limits without duct burner firing	Emission limits with duct burner firing (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
		volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
PM emissions shall not exceed 12.0 lbs/hr	PM emissions shall not exceed 13.0 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year

carbon monoxide (CO) emissions shall not exceed 195.4 tons per year	CO - 195.4 VOC - 16.3 The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096
volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and

shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P003 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P003, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall

conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B,

Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. **Reporting Requirements**

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit

under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

a. operating load and operating settings of duct burners; and

b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record

keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in

condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the

SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P003 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

Emissions Unit ID: P003

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #3 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P003) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the

application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #4 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)
	OAC Rule 3745-31-05 (A)(3)	

		OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20) OAC rule 3745-31-05(D)
OAC Rule 3745-31-05 (A)(3)		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		
	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4)	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), OAC 3745-31-05(D), 40 CFR 52.21, 40 CFR 60 Subpart GG and Db.	4.0 lbs/hr	20.0 lbs/hr
	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	Startup and shutdown emissions (also see A.II.2.)
Emission limits without duct burner firing	Emission limits with duct burner firing (limited to 4,160 hours per year)	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
PM emissions shall not exceed 12.0 lbs/hr	PM emissions shall not exceed 13.0 lbs/hr	volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
volatile organic compounds (VOC) emissions shall not exceed	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
	ammonia (NH3) emissions shall not exceed	PM emissions shall not exceed 27.0 tons per year
		sulfur dioxide (SO_2) shall not exceed 5.30 tons per year

carbon monoxide (CO) emissions shall not exceed 195.4 tons per year	PM - 27.0 CO - 195.4 VOC - 16.3 The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096
volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and

shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P004 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P004, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the

Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to

monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year

and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

    The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

    a. operating load and operating settings of duct burners; and

    b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. <u>Emission Limitation</u>

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

<u>Applicable Compliance Method</u>

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record

keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing

16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing

0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P004 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #4 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P004) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the

modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters

used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #5 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20) OAC rule 3745-31-05(D) 40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		
	40 CFR part 60, Subpart GG	
OAC Rule 3745-31-05 (A)(3)	OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4)	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr formaldehyde emissions shall not exceed 0.4512 lbs/hr sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	exceed 20.0 lbs/hr formaldehyde emissions shall not exceed 0.472 lbs/hr sulfuric acid mist emissions shall not exceed 0.255 lbs/hr Startup and shutdown emissions (also see A.II.2.)
Emission limits without duct burner firing nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr PM emissions shall not exceed 12.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	Emission limits with duct burner firing (limited to 4,160 hours per year) nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr PM emissions shall not exceed 13.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr ammonia (NH3) emissions shall not	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year carbon monoxide (CO) emissions shall not exceed 116.4 tons per year volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year formaldehyde emissions shall not exceed 0.1132 tons per year Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns) nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year PM emissions shall not exceed 27.0 tons per year sulfur dioxide (SO_2) shall not exceed

5.30 tons per year	The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3
carbon monoxide (CO) emissions shall not exceed 195.4 tons per year	
volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	See section A.I.2.c below.
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and

shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P005 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P005, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall

conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B,

Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and

(2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. **Reporting Requirements**

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year

and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

a. operating load and operating settings of duct burners; and

b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. <u>Emission Limitation</u>

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

<u>Applicable Compliance Method</u>

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record

keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in

condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton

Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the

SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P005 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

Emissions Unit ID: P005

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #5 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P005) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of

Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #6 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

	OAC Rule 3745-31-05 (A)(3)	
		40 CFR part 60, Subpart GG
		OAC rule 3745-18-06(F)
		OAC Rule 3745-17-11 (B)(4)
		OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db
		40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
		40 CFR Part 75
OAC Rule 3745-31-05 (A)(3)		OAC rule 3745-103

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr formaldehyde emissions shall not exceed 0.4512 lbs/hr sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	exceed 20.0 lbs/hr formaldehyde emissions shall not exceed 0.472 lbs/hr sulfuric acid mist emissions shall not exceed 0.255 lbs/hr Startup and shutdown emissions (also see A.II.2.)
Emission limits without duct burner firing nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr PM emissions shall not exceed 12.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	Emission limits with duct burner firing (limited to 4,160 hours per year) nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr PM emissions shall not exceed 13.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr ammonia (NH3) emissions shall not	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year carbon monoxide (CO) emissions shall not exceed 116.4 tons per year volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year formaldehyde emissions shall not exceed 0.1132 tons per year Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns) nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year PM emissions shall not exceed 27.0 tons per year sulfur dioxide (SO_2) shall not exceed

5.30 tons per year carbon monoxide (CO) emissions shall not exceed 195.4 tons per year volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year ammonia (NH3) emissions shall not exceed 41.6 tons per year formaldehyde emissions shall not exceed 1.096 tons per year sulfuric acid mist emissions shall not exceed 0.53 tons per year Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average operational restriction, see II. 1. See section A.2.b below. See section A.2.a below. See section A.2.a below. See section A.2.a below. The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30	PM - 27.0 CO - 195.4 VOC - 16.3 The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096 See section A.I.2.c below. See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and

shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P006 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P006, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall

conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B,

Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. **Reporting Requirements**

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit

under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

a. operating load and operating settings of duct burners; and

b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record

keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing

by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + ∑ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the

SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P006 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

Emissions Unit ID: P006

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #6 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P006) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the

application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #7 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	OAC Rule 3745-31-05 (A)(3)

		OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
OAC Rule 3745-31-05 (A)(3)		40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), OAC 3745-31-05(D), 40 CFR 52.21, 40 CFR 60 Subpart GG and Db.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr	20.0 lbs/hr
	formaldehyde emissions shall not exceed 0.4512 lbs/hr	formaldehyde emissions shall not exceed 0.472 lbs/hr
	sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	sulfuric acid mist emissions shall not exceed 0.255 lbs/hr
Emission limits without duct burner firing	Emission limits with duct burner firing (limited to 4,160 hours per year)	Startup and shutdown emissions (also see A.II.2.)
nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year
		carbon monoxide (CO) emissions shall not exceed 116.4 tons per year
		volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year
PM emissions shall not exceed 12.0 lbs/hr	PM emissions shall not exceed 13.0 lbs/hr	formaldehyde emissions shall not exceed 0.1132 tons per year
sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr	sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr	Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns)
carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr	carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr	nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year
	volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr	PM emissions shall not exceed 27.0 tons per year
volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	ammonia (NH3) emissions shall not exceed	sulfur dioxide (SO_2) shall not exceed 5.30 tons per year

carbon monoxide (CO) emissions shall not exceed 195.4 tons per year	SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3
volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096 See section A.I.2.c below.
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	
The tons per rolling 12-month period shall not exceed : NOx - 37.7	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any

necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P007 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P007, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting

requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B,

Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring

system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and

(2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. Reporting Requirements

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the

emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

    The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

    a. operating load and operating settings of duct burners; and

    b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above

emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. <u>Emission Limitation</u>

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

<u>Applicable Compliance Method</u>

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year
Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P007 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #7 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P007) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the

modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters

used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #8 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

		OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20) OAC rule 3745-31-05(D) 40 CFR Part 75 OAC rule 3745-103
OAC Rule 3745-31-05 (A)(3)		
OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4)	

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Db.	4.0 lbs/hr ammonia (NH3) emissions shall not exceed 20.0 lbs/hr formaldehyde emissions shall not exceed 0.4512 lbs/hr sulfuric acid mist emissions shall not exceed 0.198 lbs/hr Emission limits with duct burner firing (limited to 4,160 hours per year)	20.0 lbs/hr formaldehyde emissions shall not exceed 0.472 lbs/hr sulfuric acid mist emissions shall not exceed 0.255 lbs/hr Startup and shutdown emissions (also see A.II.2.) nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year carbon monoxide (CO) emissions shall not exceed 116.4 tons per year volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year formaldehyde emissions shall not exceed 0.1132 tons per year Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns) nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year PM emissions shall not exceed 27.0 tons per year sulfur dioxide (SO_2) shall not exceed 5.30 tons per year
Emission limits without duct burner firing nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr PM emissions shall not exceed 12.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr volatile organic compounds (VOC) emissions shall not exceed	nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr PM emissions shall not exceed 13.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr ammonia (NH3) emissions shall not exceed	

carbon monoxide (CO) emissions shall not exceed 195.4 tons per year	The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30 PM - 27.0 CO - 195.4 VOC - 16.3
volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year	The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096
ammonia (NH3) emissions shall not exceed 41.6 tons per year	See section A.I.2.c below.
formaldehyde emissions shall not exceed 1.096 tons per year	See section A.I.2.c below.
sulfuric acid mist emissions shall not exceed 0.53 tons per year	
Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average	
operational restriction, see II. 1.	
See section A.2.b below.	
See section A.2.a below.	
See section A.2.a below.	
See section A.2.a below.	

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and

shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P008 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P008, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall

conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B,

Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and

(2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:
United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. **Reporting Requirements**

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year

and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

a. operating load and operating settings of duct burners; and

b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. <u>Emission Limitation</u>

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

<u>Applicable Compliance Method</u>

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record

keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in

condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton

Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the

SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P008 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

Emissions Unit ID: P008

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #8 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P008) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of

Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
Combustion Turbine #9 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	OAC Rule 3745-31-05 (A)(3)	
	OAC Rule 3745-31-05 (A)(3)	
		OAC Rule 3745-31-05 (A)(3)

	OAC Rule 3745-31-05 (A)(3)	40 CFR part 60, Subpart GG OAC rule 3745-18-06(F) OAC Rule 3745-17-11 (B)(4) OAC Rule 3745-17-07(A) 40 CFR part 60, Subpart Db 40 CFR 52.21 OAC rule 3745-31- (13) thru (20)
		OAC rule 3745-31-05(D)
		40 CFR Part 75
OAC Rule 3745-31-05 (A)(3)		OAC rule 3745-103

Applicable Emissions Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-11(B)(4), OAC rule 3745-18-06(F), OAC 3745-31- (13) thru (20), 40 CFR 52.21, OAC 3745-31-05(D), 40 CFR 60 Subpart GG and Kb.	ammonia (NH3) emissions shall not exceed 20.0 lbs/hr formaldehyde emissions shall not exceed 0.4512 lbs/hr sulfuric acid mist emissions shall not exceed 0.198 lbs/hr	exceed 20.0 lbs/hr formaldehyde emissions shall not exceed 0.472 lbs/hr sulfuric acid mist emissions shall not exceed 0.255 lbs/hr Startup and shutdown emissions (also see A.II.2.)
Emission limits without duct burner firing nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 14.5 lbs /hr PM emissions shall not exceed 12.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 1.98 lbs/hr carbon monoxide (CO) emissions shall not exceed 11.0 ppmvd at 15% Oxygen and 23 lbs/hr volatile organic compounds (VOC) emissions shall not exceed 4.0 lbs/hr	Emission limits with duct burner firing (limited to 4,160 hours per year) nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% Oxygen and 16.0 lbs /hr PM emissions shall not exceed 13.0 lbs/hr sulfur dioxide (SO_2) shall not exceed 2.55 lbs/hr carbon monoxide (CO) emissions shall not exceed 17.0 ppmvd at 15% Oxygen and 38.0 lbs/hr volatile organic compounds (VOC) emissions shall not exceed 7.0 lbs/hr ammonia (NH3) emissions shall not	nitrogen oxides (NO_x) emissions shall not exceed 4.42 tons per year carbon monoxide (CO) emissions shall not exceed 116.4 tons per year volatile organic compounds (VOC) emissions shall not exceed 1.76 tons per year formaldehyde emissions shall not exceed 0.1132 tons per year Total tons per year (including 4,160 hours per year with duct burners, and 260 cycles startups/shutdowns) nitrogen oxides (NO_x) emissions shall not exceed 37.7 tons per year PM emissions shall not exceed 27.0 tons per year sulfur dioxide (SO_2) shall not exceed

5.30 tons per year carbon monoxide (CO) emissions shall not exceed 195.4 tons per year volatile organic compounds (VOC) emissions shall not exceed 16.3 tons per year ammonia (NH3) emissions shall not exceed 41.6 tons per year formaldehyde emissions shall not exceed 1.096 tons per year sulfuric acid mist emissions shall not exceed 0.53 tons per year Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average operational restriction, see II. 1. See section A.2.b below. See section A.2.a below. See section A.2.a below. See section A.2.a below. The tons per rolling 12-month period shall not exceed : NOx - 37.7 SO_2 - 5.30	PM - 27.0 CO - 195.4 VOC - 16.3 The tons per rolling 12-month period shall not exceed : formaldehyde - 1.096 See section A.I.2.c below. See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is equivalent to or less stringent than the limit established pursuant to OAC rule 3745-31-05.

2.b The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of 40 CFR Part 75 concerning acid rain, the permittee shall ensure that any effected 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.

2.d.The Permittee shall evaluate CO emissions from the combustion turbine in accordance with A.IV.12 to determine whether a lower CO emission limit may be reliably achieved when the duct burners are being fired while complying with other emission limits and without significant risk to equipment or personnel. This evaluation shall also examine whether there will be significant increase in NOx or ammonia emissions, as well as unreasonable increase in maintenance and repair needed for the combustion turbine.

Based upon the results of this evaluation if Ohio EPA and/or the appropriate local air agency find that the combustion turbine can consistently comply with a more stringent emission limitations for CO emissions when the duct burners are being fired, it may set those limitations as a result of this evaluation. Additional parameters or factors, e.g., the firing rate of the duct burners may be included in such limits to address particular modes of operation during which such limits may or may not be readily achievable.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.6 grains per 100 standard cubic feet.

2. Startup and Shut down shall be defined as when the unit is running at less than 70% of electric load, but under no circumstances shall startups exceed 30 minutes in duration and shutdowns shall not exceed 30 minutes in duration, unless the permittee can demonstrate that a longer startup or shutdown does not produce any higher emission level. Startup and shutdowns shall be limited to 260 cycles(one startup and one shutdown) per year. Each start up shall be a Hot Start, and any necessary heaters shall be utilized to ensure that only Hot Starts occur. Each start up and

shutdown shall be limited to the following:

Pollutant	total lbs/startup and one shutdown
NOx	34
CO	895
VOC	14
Formaldehyde	0.87

3. The maximum cumulative fuel heat input for emissions unit P009 shall not exceed 5,948,800 MMBtu based upon a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months following the startup of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,029,600
1 - 2	2,059,200
1 - 3	3,088,800
1 - 4	4,118,000
1 - 5	5,148,000
1 - 6	5,948,800
1 - 7	5,948,800
1 - 8	5,948,800
1 - 9	5,948,800
1 - 10	5,948,800
1 - 11	5,948,800
1 - 12	5,948,800

After the first 12 calendar months following the startup of emissions unit P009, compliance with the annual heat input restriction shall be based on a rolling, 12-month summation.

4. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall

conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 6, and 40 CFR Part 75.

5. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

6. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B,

Performance Specification 4 and 6.

7. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

8. Continuous O_2 or CO_2 Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous O_2 or CO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 or CO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

9. Within 180 days prior to initial startup, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 or CO_2 monitoring system designed to ensure continuous valid and representative readings of O_2 or CO_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 or CO_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the natural gas usage rate for the month, in standard cubic feet;

. b. monthly fuel heat input to the turbine, in MMBtu;

c. monthly fuel heat input to the duct burner, in MMBtu;

d. the total number hours the duct burner was being fired;

e. during the first 12 calendar months of operation, the permittee shall record the cumulative fuel heat input to each combustion turbine and duct burner for each calendar month; and

f. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the cumulative fuel heat input to each combustion turbine and duct burner.

2. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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.

3. The permittee shall operate and maintain equipment to continuously monitor and record CO 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 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall operate and maintain equipment to continuously monitor and record O_2 or CO_2 from this emissions unit in percent O_2 or CO_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 or CO_2 monitoring system including, but not limited to, percent O_2 or CO_2 on an instantaneous (one-minute) basis, emissions of O_2 or CO_2 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 install, calibrate, operate, and maintain continuous monitoring systems to monitor and record the average hourly fuel consumption of the combustion turbine and duct burner. The fuel flow monitoring systems comply with the requirements of 40 CFR Part 75, Appendix D.

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.5 and fuel gross calorific value as determined in term A.III.6. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

8. The permittee shall maintain records of the following information for each emissions unit:

a. Number of startups, and the duration of each startup.

b. Number of shutdowns, and the duration of each shutdown.

9. The permittee shall maintain hourly records in lb(s)/hr of the emissions rate for NO_x and CO based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

10. The permittee shall calculate and record, on an annual basis, the total facility mass emissions of formaldehyde, in tons, from all emissions units (B001 - B018, F001 - F003, P001 - P009, 2 emergency generators, and diesel fuel pump) located at this facility.

11. <u>PSD REQUIREMENTS</u>

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 20460

IV. **Reporting Requirements**

1. 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 occurred.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month cumulative fuel heat input limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative heat input levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

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_x values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

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_x 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.

4. 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.

5. 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 CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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 CO 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 shall also 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 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 continuous O_2 or CO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.6 grains per 100 standard cubic foot. These reports are due by the date described in Part I - General Terms and Conditions of this permit

under section (A)(2).

8. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the requirements of condition A.II.2. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P001 in accordance with this permit.

10. This emissions unit is subject to the applicable provisions of Subparts GG and Db of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Akron RAQMD
Room 904
146 S. High Street
Akron, OH 44308

11.The permittee shall submit annual reports that specify the total facility mass emissions of formaldehyde, in tons. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.

12. The Permittee shall perform the evaluation of CO emissions from the combustion turbine when the duct burners are being fired, as required by section A.I.2.d. in accordance with a plan submitted to the appropriate Ohio EPA District Office or local air agency for review and comment. The plan shall be submitted to the appropriate Ohio EPA District Office or local air agency for review and comment no later than 1 year after initial start-up of the combustion turbine

The plan shall describe the Permittee's findings with respect to control of CO emissions during the shakedown of the combustion turbine, which highlights possible areas of concern for the evaluation. The plan shall then provide for systematic evaluation of changes, within the normal or feasible range of operation of the combustion turbine/duct burners, in the following elements as related to the monitored CO emissions:

a. operating load and operating settings of duct burners; and

b. combustion turbine and combustion settings, including excess oxygen.

V. Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentration, and the mass emissions limitations for NO_x,* CO, Formaldehyde, VOC PM, and visible emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9, 40 CFR Part 60 Appendix A; for Formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

e. 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 appropriate Ohio EPA District Office or local air agency refusal to accept the results of the emission test(s).

f. 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.

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

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

NO_x emissions shall not exceed 3.5 ppmvd at 15% Oxygen
14.5 lbs/hr without duct burner firing
16.0 lbs/hr with duct burner firing
37.7 tons per year, which includes 4.42 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.2. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record

keeping required in condition A.III.2 and A.III.9. The annual emissions associated with start-up and shut-down shall be demonstrated by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

b. Emission Limitation

PM emissions shall not exceed
12.0 lbs/hr without duct burner firing
13.0 lbs/hr with duct burner firing
27.0 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. Emission Limitation

SO_2 emissions shall not exceed
1.98 lbs/hr without duct burner firing
2.55 lbs/hr with duct burner firing
5.30 tons per year

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in conditions A.III.1 and 6. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. Emission Limitation

VOC emissions shall not exceed
4.0 lbs/hr without duct burner firing
7.0 lbs/hr with duct burner firing
16.3 tons per year, which includes 1.76 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in

condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition II.3.

e. Emission Limitation

CO emissions shall not exceed
11 ppmvd at 15% Oxygen without duct burner firing
17 ppmvd at 15% Oxygen with duct burner firing
23.0 lbs/hr without duct burner firing
38.0 lbs/hr with duct burner firing
195.4 tons per year, which includes 116.4 tons for startups and shutdowns

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.3. based upon an hourly averaging period as allowed in 40 CFR Part 60. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.3 and A.III.9. The annual emissions associated with start-up and shut-down shall be determined by the record keeping required in condition A.III.8. using the lbs/ start-up and shut-down values in condition A.II.2.

f. Emission Limitation

ammonia (NH3) emissions shall not exceed
20.0 lbs/hr without duct burner firing
20.0 lbs/hr with duct burner firing
41.6 tons per year

Applicable Compliance Method

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor of 0.0173 pound of ammonia/MMBtu heat input (emission factor supplied by the permittee) by the maximum Btu rating. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the

hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

g. Emission Limitation

Formaldehyde emissions shall not exceed
0.4512 lbs/hr without duct burner firing
0.472 lbs/hr with duct burner firing
1.096 tons per year, which includes 0.1132 tons for startups and shutdowns

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined in the following manner:

Annual Emissions (tpy) = (Hours * EF + $\sum$ StartEF) / 2000

Where:
Hours = actual annual hours of operation
EF = lb/hr formaldehyde emission rate based on stack test result
StartEF =pounds of emissions allocated to each start-up/shutdown cycle

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

h. Emission Limitation

Sulfuric acid mist (H2SO4) emissions shall not exceed
0.198 lbs/hr without duct burner firing
0.255 lbs/hr with duct burner firing
0.53 tons per year

Applicable Compliance Method

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the

SO2 hourly emission rate by 10% (emission factor supplied by the permittee). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

Should more accurate emission factors be developed, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Akron RAQMD and Norton Energy Storage.

i. Emission Limitation

Visible particulate emissions from any stack shall not exceed 10 percent opacity as a six-minute average.

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P009 shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation & maintenance manual, as provided by the manufacturer.

Emissions Unit ID: P009

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Combustion Turbine #9 - 300 MW Alstom ET-11NM natural gas-fired dry low NOx (DLN) combustion turbine with 283 MMBtu/hr duct burner operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)	None	See section III, below.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

The permit to install for this emissions unit (P009) was evaluated based actual materials (typical coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (mg/m^3): 273 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 4.45*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.74
MAGLC (ug/m3): 6.49

Pollutant: Toluene
TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.36*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.23
MAGLC (ug/m3): 4,477

Pollutant: Xylene
TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 0.67*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.11
MAGLC (ug/m3): 10,333

Pollutant: Sulfuric Acid Mist
TLV (mg/m3): 1
Maximum Hourly Emission Rate (lbs/hr): 2.30*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.38
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (mg/m3): 17
Maximum Hourly Emission Rate (lbs/hr): 180*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29.92
MAGLC (ug/m3): 404.8

* This was modeled for emissions units P001 through P009 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the

application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None