Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

6/5/2015

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Raymond Sawyer
Hanging Rock Energy Facility
1395 County Rd 1A
Ironton, OH 45638

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0744000150
Permit Number: P0117322
Permit Type: OAC Chapter 3745-31 Modification
County: Lawrence

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Ironton Tribune. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Portsmouth City Health Dept., Air Pollution Unit
605 Washington Street
3rd Floor
Portsmouth, OH 45662

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted.Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now.If you have any questions, please contact Portsmouth City Health Dept., Air Pollution Unit at (740)353-5156.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 -*Via E-Mail Notification*
Portsmouth; Kentucky; West Virginia

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at:http://epa.ohio.gov/actions.aspx or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email:HClerk@epa.ohio.gov

Draft Air Pollution Permit-to-Install OAC Chapter 3745-31 Modification
Hanging Rock Energy Facility
1395 County Rd 1A,,Ironton, OH 45638
ID#:P0117322
Date of Action: 6/5/2015
Permit Desc:Chapter 31 modification to upgrade four natural gas-fired combustion turbines (P001 - P004) which results in increased electrical output..
The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the ID # or: Anne Chamberlin, Portsmouth City Health Dept., Air Pollution Unit, 605 Washington Street 3rd Floor, Portsmouth, OH 45662. Ph: (740)353-5156

Permit Strategy Write-Up

1. Check all that apply:

   Synthetic Minor Determination

   Netting Determination

2. Source Description:

Hanging Rock Energy Facility (formerly Duke Energy Hanging Rock II, LLC) operates 4 combined cycle combustion turbines (P001, P002, P003 and P004) at its facility located in Lawrence Co., Ohio. Due to the increasing demand for more power from this type of facility, HR Energy submitted this current application to implement a physical upgrade to the combustion turbines in order to increase fuel flow to the turbines which in turn creates more power output. The current combustion turbine heat input is 1,949 MMBtu/hr. This upgrade will increase the combustion turbine capacity to 2,045 MMBtu/hr. This upgrade involves the combustion turbines only. There are no changes to the steam turbine or the duct burners.

3. Facility Emissions and Attainment Status:

   Hanging Rock Energy facility is located in Lawrence County. Lawrence County is currently designated as attainment area for all criteria pollutants. This facility is a Title V facility classified as a major source under a Title V (Ohio Chapter 3745-77) Permit. The facility is a major source because potential emissions of VOC, NOx, PM, and CO exceed the major source threshold of 100 tons per year for each pollutant.

4. Source Emissions:

   There is an increase in emissions from EU's P001, P002, P003 and P004 with this modification. This facility is an existing PSD major and major source for Title V purposes. Due to new manufacturer's data with this turbine upgrade, the PM/PM10 and VOC will be decreasing over what was originally permitted. Emissions of NOx, CO, SO2, sulfuric acid, ammonia, and formaldehyde will increase, but the increase will remain below PSD thresholds. An actual to projected actual analysis per OAC rule 3745-31-01(JJJ) was submitted indicating that this project will not cause a significant emission increase.

5. Conclusion:

   There is an increase in NOX, CO, SO2, sulfuric acid, ammonia and formaldehyde emissions from EU's P001, P002, P003 and P004 with this modification. Due to new manufacturer's data with this turbine upgrade, the PM/PM10 and VOC will be decreasing over what was originally permitted. However, per the submitted actual to projected actual analysis, this project will not trigger major NSR/PSD.

6. Please provide additional notes or comments as necessary:

   None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons Per Year
NOx	502.8
SO2	28
PM/PM10/PM2.5	255.6
CO	1141.6
VOC	160.4
H2SO4	4.4

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Hanging Rock Energy Facility

Facility ID:	0744000150
Permit Number:	P0117322
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	6/5/2015
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Hanging Rock Energy Facility

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Authorization

Facility ID:	0744000150
Facility Description:	1270 MW Combined Cycle Power Plant
Application Number(s):	A0051310
Permit Number:	P0117322
Permit Description:	Chapter 31 modification to upgrade four natural gas-fired combustion turbines (P001 - P004) which results in increased electrical output.
Permit Type:	OAC Chapter 3745-31 Modification
Permit Fee:	$4,000.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	6/5/2015
Effective Date:	To be entered upon final issuance

This document constitutes issuance to:

Hanging Rock Energy Facility
1395 County Rd 1A
Ironton, OH 45638

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Portsmouth City Health Dept., Air Pollution Unit
605 Washington Street
3rd Floor
Portsmouth, OH 45662
(740)353-5156

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0117322
Permit Description: Chapter 31 modification to upgrade four natural gas-fired combustion turbines (P001 - P004) which results in increased electrical output.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Group Name: Combustion Turbines

Emissions Unit ID:	**P001**
Company Equipment ID:	HRSG 1GT1
Superseded Permit Number:	P0110487
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P002**
Company Equipment ID:	HRSG 1GT2
Superseded Permit Number:	P0110487
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P003**
Company Equipment ID:	HRSG 2GT1
Superseded Permit Number:	P0110487
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	HRSG 2GT2
Superseded Permit Number:	P0110487
General Permit Category andType:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

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

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

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

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

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

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

4. Monitoring and Related Record Keeping and Reporting Requirements

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

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

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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

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

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, 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 Portsmouth City Health Dept., Air Pollution Unit. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, andreportingrequirements contained in this permit shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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:

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

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

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

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

c) The permittee shall submit progress reports to the Portsmouth City Health Dept., Air Pollution Unit concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

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

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

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit.

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 thePortsmouth City Health Dept., Air Pollution Unit. 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, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s)not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

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

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual

obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted,no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services"facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be enteredupon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed.The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart KKKK, Standards of Performance for New Stationary Sources (NSPS) Stationary Combustion Turbines: P001, P002, P003and P004. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

3. The permittee shall ensure that any CAIR NO_x, SO_2, or NO_x ozone season units complies with the requirements of OAC Chapter 3745-109, which includes submitting timely permit applications. The permittee shall ensure that the affected emissions units comply with those requirements as outlined in the permit application submitted as required by OAC rules 3745-109-03, 3745-109-10 and 3745-109-16 for the affected emissions units.

   The permittee shall also comply with any subsequent federally mandated programs that may replace the CAIR program affecting electric generating facilities.

   Note: Ohio EPA DAPC has completed proposed rule amendments for OAC chapter 3745-14, specifically, OAC rule 3745-14-01 and OAC rule 3745-14-06, which facilitated the transition of the affected units from OAC chapter 3745-14 into the federal Clean Air Interstate Rule (CAIR) program which began with the 2009 control periods. This began the process of "sunsetting" the parts of OAC chapter 3745-14 which were no longer needed as a result of Ohio's CAIR rules (OAC chapter 3745-109).

   On April 29th, 2014, the United States Supreme Court upheld EPA's Cross –State Air Pollution Rule (CSAPR) commonly known as the "Transport Rule" and reversed the 2012 decision by the U.S. Court of Appeals for the District of Columbia invalidating the rules. At this time, CAIR remains in place and no immediate action from States or affected sources is expected. The CAIR allowances for affected units and requirements of the CAIR rule will continue pending further guidance from USEPA on implementing CAIR.

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group -Combustion Turbines: P001,P002,P003,P004,

EU ID	Operations, Property and/or Equipment Description
P001	GE 7FA natural gas fired dry low NO_x (DLN) combustion turbine No. 1 with duct burner nominally rated at 587 MMBtu/hr operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR). Chapter 31 modification to increase capacity of the combustion turbine to capacity nominally rated at 2,045 MMBtu/hr.
P002	GE 7FA natural gas fired dry low NO_x (DLN) combustion turbine No. 2 with duct burner nominally rated at 587 MMBtu/hroperating in combined cycle mode controlled by Selective Catalytic Reduction (SCR). Chapter 31 modification to increase capacity of the combustion turbine to capacity nominally rated at 2,045 MMBtu/hr.
P003	GE 7FA natural gas fired dry low NO_x (DLN) combustion turbine No. 3 with duct burner nominally rated at 587 MMBtu/hroperating in combined cycle mode controlled by Selective Catalytic Reduction (SCR). Chapter 31 modification to increase capacity of the combustion turbine to capacity nominally rated at 2,045 MMBtu/hr.
P004	GE 7FA natural gas fired dry low NO_x (DLN) combustion turbine No. 4 with duct burner nominally rated at 587 MMBtu/hroperating in combined cycle mode controlled by Selective Catalytic Reduction (SCR). Chapter 31 modification to increase capacity of the combustion turbine to capacity nominally rated at 2,045 MMBtu/hr.

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

(1) d)(12) through d)(15) and e)(10).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	**EMISSION LIMITS WITHOUT DUCT BURNER FIRING** Nitrogen oxides (NO_x) emissions shall not exceed 2.9 ppmvd at 15% oxygen (based on a 3-hour block averaging period). NO_x emissions shall not exceed 22.3 pounds per hour.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Particulate ($PM/PM_{10}/PM_{2.5}$) emissions shall not exceed 10.2 pounds per hour. Sulfur dioxide (SO_2) emissions shall not exceed 1.2 pounds per hour. Carbon monoxide (CO) emissions shall not exceed 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 28.0 pounds per hour. Volatile organic compounds (VOC) emissions shall not exceed 3.1 pounds per hour. Sulfuric acid (H_2SO_4) emissions shall not exceed 0.19 pound per hour . **EMISSION LIMITS WITH DUCT BURNER FIRING** NO_x emissions shall not exceed 2.9 ppmvd at 15% oxygen (based on a 3-hour block averaging period). NO_x emissions shall not exceed 28.7 pounds per hour . $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 14.6 pounds per hour. SO_2 emissions shall not exceed 1.6 pounds per hour. CO emissions shall not exceed 8 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 47.9 pounds per hour. VOC emissions shall not exceed 6.2 pounds per hour.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		H_2SO_4 emissions shall not exceed 0.24 pound per hour. **TOTAL ANNUAL EMISSIONS** NO_x emissions shall not exceed 125.7 tons per year based on a rolling, 12-month average, including startup and shutdown emissions. SO_2 emissions shall not exceed 7.0 tons per year based on a rolling, 12-month average. $PM/PM_{10}/PM_{2.5}$ emissions shall not exceed 63.9 tons per year based on a rolling, 12-month average. CO emissions shall not exceed 285.4 tons per year based on a rolling, 12-month average, including startup and shutdown emissions. VOC emissions shall not exceed 40.1 tons per year based on a rolling, 12-month average, including startup and shutdown emissions. H_2SO_4 emissions shall not exceed 1.1 tons per year based on a rolling, 12-month average. See b)(2)c.
b.	ORC 3704.03(T)	See b)(2)d.
c.	40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420) [In accordance with 40 CFR 60.4305(a), this emission unit is a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel which commenced construction,	New, modified or reconstructed turbines firing natural gas with a heat input capacity greater than 850 MMBtu/hr are required to limit NO_x emissions to less than 15 ppm at 15% O_2 or 54 ng/J of useful output (0.43 lb/MWh). SO_2 emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	modification, or reconstruction after February 18, 2005].	would result in potential sulfur emissions in excess of 0.060 lb SO_2MMBtu heat input.
d.	40 CFR Part 75	See b)(2)b.
e.	OAC chapter 3745-109	See B.3.
f.	OAC rule 3745-18-06(F)	Exempt per OAC rule 3745-18-06(A) since natural gas is the only fuel burned.
g.	OAC rule 3745-17-11(B)(4)	See b)(2)a.
h.	OAC rule 3745-17-07(A)	Visible particulate emissions from this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
i.	OAC chapter 3745-103	See b)(2)b.
j.	OAC rule 3745-114-01	See d)(12) through d)(15) and e)(10).
k.	40 CFR Part 64	See b)(2)e.

(2) Additional Terms and Conditions

a. The emission limitation required by this applicable rule is equivalent to or less stringent than the emission limitation established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

b. The permittee is subject to the requirements of OAC chapter 103 and 40 CFR Parts 72 and 75 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.

c. The permittee performed a Best Available Control Technology (BACT) review for NO_x, SO_2, CO, PM_{10}, H_2SO_4, and VOC in the initial PTI 07-00503, issued 12/13/2001. This permit modification did not trigger PSD, so a new BACT review was not necessary. The emission limitations based on the BACT requirements are listed under 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20 above. The following determinations were made for each pollutant:

PM - Burning natural gas in an efficient combustion turbine. For this permit, it is assumed that all PM emissions include $PM_{10}$and $PM_{2.5}$;

NO_x - Use of DLN burners and employment of SCR with a controlled rate of 2.9ppmvd at 15% oxygen (based on a 3-hour block averaging period);

CO - Use of good combustion practices with a rate of 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period) without duct firing and 8ppmvd at 15% oxygen (based on a 24-hour block averaging period) with duct firing;

VOC - Use of efficient combustion technology in the operation of the turbine;

SO_2 - Burning natural gas in an efficient combustion turbine and burning low sulfur fuel; and

H_2SO_4 - Burning natural gas in an efficient combustion turbine.

d. The requirements of this applicable rule are equivalent to the NO_x, CO, VOC, SO_2 and $PM/PM_{10}/PM_{2.5}$ emissions per 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

e. This rule is applicable for NO_x, but exempt per 64.2(b)(1)(vi) because NO_x CEMs are required by the Acid Rain Program and the permit.

f. The permittee shall maintain 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(s). The fuel flow monitor/meter shall be maintained as required in Part 75, Appendix D. Except as allowed below, the plan shall follow the requirements 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.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous NO_x monitoring system in accordance with the frequencies required pursuant to 40 CFR Part 60 and 40 CFR Part 75; or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B, in lieu of frequencies required in 40 CFR Part 60. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits pursuant to 40 CFR Part 60, and linearity checks pursuant to 40 CFR Part 75; however, linearity checks completed pursuant to 40 CFR Part 75, Appendix B, may be substituted for the quarterly cylinder gas or relative accuracy audits required per 40 CFR Part 60.

g. The permittee shall maintain a written quality assurance/quality control plan for the continuous CO monitoring system, designed to ensure continuous valid and representative readings of CO emissions in units of the applicable standard(s). Except as allowed below, 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.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous CO monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR 60, or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; however, the quarterly cylinder gas audit and relative accuracy audit frequency requirements may be adjusted to coincide with linearity checks completed for continuous emissions monitoring systems subject to 40 CFR Part 75, Appendix B requirements.

h. The permittee shall maintain a written quality assurance/quality control plan for the continuous O_2 monitoring system, designed to ensure continuous valid and representative readings of O_2 emissions in units of the applicable standard(s). Except as allowed below, the plan shall follow the requirements 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 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous O_2 monitoring system in accordance with the frequencies required pursuant to 40 CFR Part 60 and 40 CFR Part 75; or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B, in lieu of frequencies required in 40 CFR Part 60. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits pursuant to 40 CFR Part 60, and linearity checks pursuant to 40 CFR Part 75; however, linearity checks completed pursuant to 40 CFR Part 75, Appendix B, may be substituted for the quarterly cylinder gas or relative accuracy audits required per 40 CFR Part 60.

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

c) Operational Restrictions

(1) The permittee shall burn only pipeline quality natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 0.5 grain per 100 standard cubic feet.

(2) Startup shall be defined as the period between when the combustion turbine is initially started until the combustion turbine achieves combustion operational Mode 6. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. Mode 6 is defined by the manufacturer as the low emissions mode during which all 6 of the burner nozzles are in use, burning a lean premixed gas for steady-state operation (i.e., in compliance with the NO_x and CO lbs/hr emission limitations listed in b)(1) above). The continuous emission monitoring system will indicate and record the combustion turbine operational mode, including when the emissions unit is shutdown and when operating in start-up and shutdown modes. This system will also be used to demonstrate compliance with the

NO_x and CO emissions limitations during steady-state operation (Mode 6) and startups/shutdowns.

Startups shall not exceed 250 minutes in duration and shutdowns shall not exceed 120 minutes in duration. The total of all start-ups and shutdowns shall be limited to 260 cycles (each cycle consists of one start-up and one shutdown) per year.

Each startup and shutdown shall be limited to the following:

Pollutant	*Maximum Emission Rate (lbs/hr per turbine)*
NO_x	400
CO	1,658
VOC	94

Compliance with the above CO and NO_x lbs/hr startup and shutdown emission limitations shall be demonstrated using the continuous emissions monitoring system based on a 1-hour block average. Compliance with the VOC lbs/hr startup and shutdown emission limitation shall be demonstrated through the record keeping requirements specified in section d) of this permit.

(3) Except during periods of startup, the SCR shall be in operation at all times including periods of shutdown mode of the unit.

(4) This emission unit has been in operation more than 12 months and, as such, the permittee has existing records to generate the rolling, summation of emissions upon issuance of this permit.

(5) The permittee shall comply with all applicable operational requirements under 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420) after modification of each emissions unit.

d) 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 (in standard cubic feet);

b. the hours of operation of the combustion turbine;

c. the number of start-ups, and the duration, in minutes, of each start-up;

d. the number of shutdowns, and the duration, in minutes, of each shutdown;

e. the total number of start-up/shutdown cycles;

f. the VOC emissions for each start-up/shutdown event, in tons, by using the emission factor of 94 pounds per hour during startup and shutdown;

g. the total VOC emissions, in tons, not including start-up/shutdown emissions;

h. the total NO_x emissions, in tons, including start-up/shutdown emissions;

i. the total CO emissions, in tons, including start-up/shutdown emissions;

j. the total VOC emissions, in tons, including start-up/shutdown emissions (i.e., f+g);

k. the total SO_2, $PM/PM_{10}/PM_{2.5}$, NH_3, formaldehyde, and H_2SO_4 emissions, in pounds;

l. the rolling, 12-month summation of the NO_x emissions, in tons, including start-up/shutdown emissions;

m. the rolling, 12-month summation of the total CO emissions, in tons, including start-up/shutdown emissions;

n. the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions; and

o. the rolling, 12-month summation of the SO_2, H_2SO_4 and $PM/PM_{10}/PM_{2.5}$ emissions, in tons.

(2) The permittee shall operate and maintain equipment to continuously monitor* and record NO_x emissions from this emissions unit in the units established in this permit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of data obtained by the continuous NO_x monitoring system including, but not limited to:

a. emissions of NO_x in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of NO_xin units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown;

c. results of quarterly cylinder gas audits or linearity checks;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous NO_x monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system; and

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

In conjunction with the operation of the NO_x CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the NO_x CEMS.

* The installation and operation of systems to continuously monitor and record emissions of NO_x may be performed in lieu of monitoring the fuel consumption and ration of water or steam of the fuels being fired in the turbine, as required by 40 CFR 60.4335(b).

(3) The permittee shall operate and maintain equipment to continuously monitor and record CO emissions from this emissions unit in the units established in this permit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of data obtained by the continuous CO monitoring system including, but not limited to:

a. emissions of CO in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of CO in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit and continuous CO monitoring system;

g. the date, time, and hours of operation of the emissions unit without the continuous CO monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous CO monitoring system; and

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

In conjunction with the operation of the CO CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the CO CEMS.

(4) The permittee shall operate and maintain equipment to continuously monitor and record O_2 emitted from this emissions unit in percent O_2. The continuous monitoring and recording equipment shall comply with the requirements specified 40 CFR Part 60.13 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of data obtained by the continuous O_2 monitoring system including, but not limited to:

a. percent $O_2$for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. results of quarterly cylinder gas audits or linearity checks;

c. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

d. results of required relative accuracy test audit(s);

e. hours of operation of the emissions unit and continuous O_2 monitoring system;

f. the date, time, and hours of operation of the emissions unit without the continuous O_2 monitoring system;

g. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous O_2 monitoring system; and

h. the reason (if known) and the corrective actions taken (if any) for each such event in (f) and (g).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(5) The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

Fuel flow data that is substituted in accordance with 40 CFR Part 75, Appendix D, is not to be used when verifying compliance with the hourly NO_x and CO pounds per hour emission limits. Hours in which fuel flow is substituted should be included as NO_x and CO monitoring system downtime.

(6) The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. In accordance with 40 CFR Part 60, Subpart KKKK, section 60.4365, the permittee can be exempted from monitoring the total sulfur content of the fuel if they demonstrate, through representative fuel sampling data, that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.The allowable SO_2 limits in section b)(1) are based on a factor of 0.0006 lb/MMBtu which is default for pipeline quality natural gas in 40 CFR Part 75 Appendix D. Therefore, the permittee shall demonstrate compliance with the 0.0006 lb/MMBtu since it is more stringent than the Subpart KKKK sulfur content limit, after modification of each emissions unit. The permittee shall use one of the following sources of information to make the required demonstration:

a. the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for natural gas is 0.5 grain of sulfur or less per 100 standard cubic feet and has potential sulfur emissions of less than 0.060lb SO_2/mmBtu heat input;

b. representative fuel sampling data which show that the sulfur content of the fuel does not exceed 0.0006lb SO_2/mmBtu heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

Per 40 CFR Part 75, Appendix D section 2.3.1.4, the permittee has demonstrated that the gaseous fuel is pipeline natural gas. Therefore, ongoing sampling of the fuel's sulfur content is required annually and whenever the fuel supply sources change. Sampling and analysis of the fuel gross calorific value is required monthly.

(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 d)(5) and gross calorific value as determined in d)(6). The heat input rate shall be calculated in accordance with the procedures in section 5 of 40 CFR Part 75, Appendix F.

(8) 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.

(9) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_x monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2; the accuracy requirements of Performance Specification 6; and has been certified by U.S. EPA or recommended for certification by Ohio EPA to U.S. EPA under 40 CFR Part 75. The permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of NO_x is being calculated stoichiometrically. The letter(s)/document(s) of certification

under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(10) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous carbon monoxide (CO) monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a (as appropriate), and the accuracy requirements of Specification 6. The permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. The letter(s)/document(s) of certification under Part 60 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(11) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O_2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 3; and has been certified by U.S. EPA or recommended for certification by Ohio EPA to U.S. EPA under 40 CFR Part 75. The letter(s)/document(s) of certification under Part 60 and certification or recommendation for certification under Part 75 shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(12) The permit to install for these emissions units(P001-P004) was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

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

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold

Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

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

Pollutant: Formaldehyde
TLV (ug/m3): 272
Maximum Hourly Emission Rate (lb/hr): 1.98*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.93
MAGLC (ug/m3): 6.48

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lb/hr): 8.8*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8.875
MAGLC (ug/m3): 24

Pollutant: Toluene
TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lb/hr): 1.02*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.023
MAGLC (ug/m3): 4476

Pollutant: Xylene
TLV (ug/m3): 434,000
Maximum Hourly Emission Rate (lb/hr): 0.5*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.94
MAGLC (ug/m3): 10333

Pollutant: Acetaldehyde
TLV (ug/m3): 180,000

Maximum Hourly Emission Rate (lb/hr): 0.311*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.842
MAGLC (ug/m3): 4286

Pollutant: Hexane
TLV (ug/m3): 176,000
Maximum Hourly Emission Rate (lb/hr): 0.44*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.585
MAGLC (ug/m3): 4190

Pollutant: Zinc
TLV (ug/m3): 5000
Maximum Hourly Emission Rate (lb/hr): 0.29*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.69
MAGLC (ug/m3): 119

* This was modeled for emissions units B001, B002, P001, P002, P003 and P004, combined.

The permittee has demonstrated that emissions of the above air toxics, from emissions units B001, B002, P001, P002, P003 and P004, are calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

(13) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a

"modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

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

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

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

(16) The permittee shall comply with all applicable monitoring and recordkeeping requirements under 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420) after modification of each emissions unit.

e) 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 quarterly deviation (excursion) reports that identify the following:

a. all records which show that the sulfur content of the natural gas exceeded 0.5 grain per 100 standard cubic feet;

b. all records which show that the start-up duration exceeded 250 minutes;

c. all records which show that the shutdown duration exceeded 120 minutes;

d. all records which show that the total number of start-up/shutdown cycles exceeded 260;

e. all exceedances of the NO_x, CO, and/or VOC start-up limitations; and

f. all exceedances of the rolling, 12-month NO_x, CO, VOC, SO_2 and/or $PM/PM_{10}/PM_{2.5}$ emission limitations.

These quarterly reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(3) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content, the permittee must submit reports of excess emissions and monitor downtime in accordance with 40 CFR 60.4375 and40 CFR 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shut-down, and malfunction.

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, 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 NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, 40 CFR Parts 75, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous NO_x and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified in e.(3)a;

v. the total NO_x emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous NO_x monitoring system while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits or linearity checks;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol. Data substitution procedures from 40 CFR 75 are not to be used for showing compliance with the short termOAC 3745-31-10 through 3745-31-20 rule-based or NSPS-based limitation(s) in this permit.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(5) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, 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 CO emissions in excess of any applicable limit specified in this permit, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous CO and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified in e.(4)a;

v. the total CO emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous CO monitoring system while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous CO monitoring system, and/or emissions unit;

xii. the date, time, and duration of any downtime** of the continuous CO monitoring system while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter. These reports shall also contain the total CO emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol. Data substitution procedures from 40 CFR 75 are not to be used for showing compliance with the short term OAC 3745-31-10 through 3745-31-20 rule-based or NSPS-based limitation(s) in this permit.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous O_2 monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, 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 monitoring system downtime and malfunction while the emissions unit was on line.

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous O_2 monitor;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to

the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the total operating time (hours) of the emissions unit;

v. the total operating time of the continuous O_2 monitoring system while the emissions unit was in operation;

vi. results and dates of quarterly cylinder gas audits or linearity checks;

vii. unless previously submitted, results and dates of the relative accuracy test audit(s) (during appropriate quarter(s));

viii. unless previously submitted, the results of any relative accuracy test audit showing the continuous O_2 monitor out-of-control and the compliant results following any corrective actions;

ix. the date, time, and duration of any/each malfunction* of the continuous O_2 monitoring system while the emissions unit was in operation;

x. the date, time, and duration of any downtime* of the continuous O_2 monitoring system while the emissions unit was in operation; and

xi. the reason (if known) and the corrective actions taken (if any) for each event in (b)(ix) and (x).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

(7) If using the fuel flow rate to stoichiometrically calculate the mass rate of emissions of NO_X and/or CO, in place of Specification 6 requirements, the permittee shall submit quarterly reports, to the appropriate Ohio EPA District Office or local air agency, that document the date, time, and duration of each malfunction and/or period of downtime of the continuous fuel flow monitoring system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event. If there was no downtime or malfunction of the continuous fuel flow monitoring system during any calendar quarter, the report shall be submitted so stating it. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.

(8) The permittee shall collect, record, and maintain measurements, data, records, and reports required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required by this Part.

(9) The permittee shall submit annual reports that specify the total NO_x, CO, $PM/PM_{10}/PM_{2.5}$, SO_2, VOC, NH_3, formaldehyde, and H_2SO_4 emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This

reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

(10) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(11) The permittee shall comply with all applicable reporting requirements under 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420) after modification of each emissions unit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

NO_x emissions shall not exceed:

2.9ppmvd at 15% oxygen (based on a 3-hour block averaging period);
22.3 pounds per hour without duct firing;
28.7 pounds per hour with duct firing; and
125.7 tons per year based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

The permittee shall demonstrate compliance using Methods 1 through 4 and 7E and 20 of 40 CFR Part 60, Appendix A and the procedures specified in 40 CFR 60.4400. Alternative U.S.EPA approved test methods may be used with prior approval from Ohio EPA. See f)(2) for emission testing requirement.

Ongoing compliance with the NO_x emission limitations contained in this permit, 40 CFR Part 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60 and 40 CFR Part 75.

b. Emission Limitations:

$PM/PM_{10}/PM_{2.5}$ emissions shall not exceed:

10.2 pounds per hour without duct burner firing;
14.6 pounds per hour with duct burner firing; and
63.9 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201A and 202. Alternative USEPA-approved test methods may be used with prior approval by Ohio EPA. See f)(2) for emission testing requirement.

The annual emission limitation was determined by multiplying the hourly emission rate with duct burner firing by 8,760 hrs/yr and dividing by 2000 lbs/ton.

Ongoing compliance shall be demonstrated through the record keeping requirements ind)(1).

c. Emission Limitations:

SO_2 emissions shall not exceed:

1.2 pounds per hour without duct burner firing;
1.6 pounds per hour with duct burner firing; and
7.0 tons per year based on a rolling, 12-month summation.

Applicable Compliance Methods:

The allowable emission limitations were derived using the default emission factor for pipeline quality Natural Gas in 40 CFR Part 75, Appendix D (0.0006 lb/MMbtu) and the maximum heat input of the turbine without duct burner (2,045 MMBtu/hr) or the maximum heat input of the turbine with duct burner firing (2,632 MMBtu/hr). The annual emission limitation was determined by multiplying the hourly emission limit with duct burner firing (1.6 lb/hr) by 8,760 hrs/yr and dividing by 2000 lbs/ton.

Compliance shall be demonstrated through testing performed in accordance with 60 CFR Part 60.4415.

d. Emission Limitations:

VOC emissions shall not exceed:

3.1 pounds per hour without duct burner firing;
6.2 pounds per hour with duct burner firing; and
40.1 tons per year based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative USEPA-approved test methods may be used with prior approval by Ohio EPA. See f)(2) for emission testing requirement.

The annual emission limitation was determined by the sum of the emissions during startup/shutdown and the emissions during normal operation.

Ongoing compliance shall be demonstrated through the record keeping requirements ind)(1).

e. Emission Limitations:

CO emissions shall not exceed:

6 ppmvd at 15% oxygen without duct burner firing (based on a 24-hour block averaging period);
8ppmvd at 15% oxygen with duct burner firing (based on a 24-hour block averaging period);
28.0 pounds per hour without duct burner firing;
47.9 pounds per hour with duct burner firing; and
285.4 tons per year based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

The permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S.EPA approved test methods may be used with prior approval from Ohio EPA. See f)(2) for emission testing requirement.

Ongoing compliance with the CO emission limitations contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

f. Emission Limitations:

H_2SO_4 emissions shall not exceed:

0.19 pound per hour without duct burner firing;
0.24 pound per hour with duct burner firing; and
1.1 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the emission factor of 0.000091lb/mmBtu (extrapolated from the SO_2 emissions factor) by the maximum heat input.

Compliance with the tpy emission limitation shall be demonstrated based upon the record keeping requirements specified in section d)(1).

If required, the permittee shall demonstrate compliance by emission testing in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

g. Emission Limitation:

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

Applicable Compliance Method:

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

h. Emission Limitation:

In accordance with 40 CFR 60.4320(a), new, modified or reconstructed turbines firing natural gas with a heat input capacity greater than 850 MMBtu/hr are required to limit NO_x emissions to less than 15 ppm at 15% O_2 or 54 ng/J of useful output (0.43 lb/MWh).

Applicable Compliance Method:

After modification of each emissions unit, compliance shall be demonstrated using a NO_x CEMS employed in accordance with the requirements specified in 40 CFR 60.4340(b)(1), 60.4335(b), 60.4345 and 60.4350. An initial performance test shall be conducted in accordance with the requirements specified in 40 CFR 60.4405.

i. Emission Limitation:

In accordance with 40 CFR 60.4330(a), SO_2 emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO_2MMBtu heat input.

Applicable Compliance Method:

After modification of each emissions unit, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR 60.4360, 60.4365, and 60.4370. Initial and subsequent performance tests shall be conducted in accordance with the requirements specified in 40 CFR 60.4415.

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

a. The emission testing shall be conducted in conjunction with the next scheduled RATA testing, after issuance of this Permit to Install and modification of each emissions unit, but not later than 180 days after initial startup of the modified emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for CO, NO_x, PM/PM_{10},/$PM_{2.5}$, and VOC, in the appropriate averaging period(s).

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

for CO, Methods 1 thru 4 and 10 of 40 CFR Part 60, Appendix A;

for NO_x, Methods 1 thru 4 and 7E/20 of 40 CFR Part 60, Appendix A, and the procedures specified in 40 CFR 60.4400;

for PM/PM_{10},/$PM_{2.5}$, Method 5 of 40 CFR Part 60, Appendix A; and Methods 201A and 202 of 40 CFR Part 51, Appendix M; and

for VOC, Methods 1 through 4 and 25, of 40 CFR Part 60, Appendix A.

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

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified by the Ohio EPA or Portsmouth Local Air Agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

f. Personnel from the Portsmouth 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 Portsmouth 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 Portsmouth Local Air Agency.

g) Miscellaneous Requirements

(1) In accordance with good engineering practices, the SCR units on emission units P001-P004 shall be 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 and maintenance manual, as provided by the manufacturer.