



2/12/2015

Certified Mail

Mr. Jan-Arthur Utrecht
 University of Cincinnati
 P.O. Box 210218
 Cincinnati, OH 45221-0218

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 1431070849
 Permit Number: P0117618
 Permit Type: Administrative Modification
 County: Hamilton

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

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

Environmental Review Appeals Commission
 77 South High Street, 17th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF 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.

If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
SWOQA; Indiana; Kentucky



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
University of Cincinnati**

Facility ID:	1431070849
Permit Number:	P0117618
Permit Type:	Administrative Modification
Issued:	2/12/2015
Effective:	2/12/2015



Division of Air Pollution Control
Permit-to-Install
for
University of Cincinnati

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Final Permit-to-Install
University of Cincinnati
Permit Number: P0117618
Facility ID: 1431070849
Effective Date: 2/12/2015

Authorization

Facility ID: 1431070849
Facility Description: Central Utility and East Campus Utility Plants (CUP & ECUP)
Application Number(s): A0051696
Permit Number: P0117618
Permit Description: Administrative modification to Permit to Install (PTI) 14-2107 and PTI 14-05950 for emissions units B019 and B020, and P003 and P004, respectively, to allow use of Predictive Emissions Monitoring Systems (PEMS).
Permit Type: Administrative Modification
Permit Fee: \$1,225.00
Issue Date: 2/12/2015
Effective Date: 2/12/2015

This document constitutes issuance to:

University of Cincinnati
Clifton Campus
Cincinnati, OH 45221

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:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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: P0117618

Permit Description: Administrative modification to Permit to Install (PTI) 14-2107 and PTI 14-05950 for emissions units B019 and B020, and P003 and P004, respectively, to allow use of Predictive Emissions Monitoring Systems (PEMS).

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

Group Name: CUP Package Boilers: B019 & B020

Emissions Unit ID:	B019
Company Equipment ID:	CUP Package Boiler 1
Superseded Permit Number:	14-2107
General Permit Category andType:	Not Applicable
Emissions Unit ID:	B020
Company Equipment ID:	CUP Package Boiler 2
Superseded Permit Number:	14-2107
General Permit Category andType:	Not Applicable

Group Name: Combustion Turbines: P003 & P004

Emissions Unit ID:	P003
Company Equipment ID:	CTG 1
Superseded Permit Number:	14-05950
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	CTG 2
Superseded Permit Number:	14-05950
General Permit Category andType:	Not Applicable



Final Permit-to-Install
University of Cincinnati
Permit Number: P0117618
Facility ID: 1431070849
Effective Date: 2/12/2015

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 Southwest Ohio Air Quality Agency.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Southwest Ohio Air Quality Agency. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Southwest Ohio Air Quality Agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

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

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 Southwest Ohio Air Quality Agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

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 Southwest Ohio Air Quality Agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Southwest Ohio Air Quality Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, 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 obtained before 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 entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly 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.



Final Permit-to-Install
University of Cincinnati
Permit Number: P0117618
Facility ID: 1431070849
Effective Date: 2/12/2015

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
University of Cincinnati
Permit Number: P0117618
Facility ID: 1431070849
Effective Date: 2/12/2015

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.



Final Permit-to-Install
University of Cincinnati
Permit Number: P0117618
Facility ID: 1431070849
Effective Date: 2/12/2015

C. Emissions Unit Terms and Conditions



1. Emissions Unit Group – CUP Package Boilers: B019 & B020

EU ID	Operations, Property and/or Equipment Description
B019	200 MMBtu/hour natural gas and No. 2 oil-fired boiler
B020	200 MMBtu/hour natural gas and No. 2 oil-fired boiler

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
- (1) None.
- 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.	OAC rule 3745-31-05(A)(3)	<u>When combusting natural gas:</u> PE shall not exceed 0.005 pound per MMBtu; SO ₂ emissions shall not exceed 0.6 pound per MMcf of natural gas burned; CO emissions shall not exceed 0.03 pound per MMBtu; VOC emissions shall not exceed 0.001 pound per MMBtu; and NOx emissions shall not exceed 0.20 pound per MMBtu. <u>When combusting No. 2 fuel oil:</u> PE shall not exceed 0.02 pound per MMBtu; SO ₂ emissions shall not exceed 0.3 pound per MMBtu; CO emissions shall not exceed 0.03 pound per MMBtu;



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>VOC emissions shall not exceed 0.001 pound per MMBtu; and NOx emissions shall not exceed 0.20 pound per MMBtu.</p> <p>See b)(2)a., b)(2)b., b)(2)c., and c)(1).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D), OAC rule 3745-17-07(A)(1), and 40 CFR Part 60, Subpart Db.</p>
b.	<p>OAC rule 3745-31-05(D)</p> <p>Synthetic Minor Limitations to Avoid Prevention of Significant Deterioration (PSD) New Source Review</p>	<p>PE from emissions units B019 and B020, combined, shall not exceed 5.08 TPY, based upon a rolling, 12-month summation.</p> <p>SO₂ emissions from emissions units B019 and B020, combined, shall not exceed 21.06 TPY, based upon a rolling, 12-month summation.</p> <p>CO emissions from emissions units B019 and B020, combined, shall not exceed 24.5 TPY, based upon a rolling, 12-month summation.</p> <p>VOC emissions from emissions units B019 and B020, combined, shall not exceed 0.82 TPY, based upon a rolling, 12-month summation.</p> <p>NOx emissions from emissions units B019 and B020, combined, shall not exceed 163.3 TPY, based upon a rolling, 12-month summation.</p> <p>See c)(2), c)(3), and c)(4).</p>
c.	<p>OAC rule 3745-17-07(A)(1)</p>	<p>When combusting No. 2 fuel oil, the visible emission limitations specified by this rule are less stringent than the visible emission limitations established pursuant to 40 CFR Part 60, Subpart Db.</p> <p>When combusting natural gas, visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-10(B)(1)	The emission limitations specified by this rule are less stringent than or equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-18-37(K)(3)	The emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3) for the combustion of No. 2 fuel oil.
f.	40 CFR Part 60, Subpart Db (40 CFR 60.40b-60.49b) Standards of Performance (NSPS) for Industrial-Commercial- Institutional Steam Generating Units	<p>When combusting No. 2 fuel oil, visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except for one six-minute period per hour of not more than 27 percent opacity, except as provided by 60.43b(g).</p> <p>The NO_x emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>The SO₂ emission limitation for very low sulfur fuel specified by this rule is less stringent than the SO₂ emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>

(2) Additional Terms and Conditions

- a. The permittee shall operate and maintain low NO_x gas burners on emissions units B019 and B020.
- b. Each continuous NO_x predictive emissions monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16. At least 45 days before commencing certification testing of the NO_x predictive emissions monitoring system(s), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NO_x predictive emissions continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x predictive emissions monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct daily sensor evaluations; to conduct quarterly relative accuracy audits; and to conduct yearly relative accuracy test audits in units of the standard(s), in accordance with and at the



frequencies required per 40 CFR Part 60, Appendix B, Performance Specification 16.

- c. The predictive emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes all sensors, algorithms, and data recording/processing hardware and software. Any change to algorithms used to predict NO_x emissions shall require new certification testing of the NO_x predictive emissions monitoring systems.

c) Operational Restrictions

- (1) The quality of the oil burned in these emissions units shall have a combination of heat content and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.3 pound of SO₂ per MMBtu of actual heat input on an "as received" basis and a maximum sulfur content of 0.39 percent by weight.
- (2) The maximum annual No. 2 fuel oil usage rate for emissions units B019 and B020, combined, shall not exceed 983,802 gallons per rolling, 12-month period.
- (3) The maximum annual natural gas usage rate for emissions units B019 and B020, combined, shall not exceed 1,491,333,333 cubic feet per rolling, 12-month period.
- (4) The total annual heat input rate for emissions units B019 and B020, combined, shall not exceed 1,633,100 MMBtu per rolling, 12-month period.
- (5) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the fuel usage and heat input upon issuance of this permit.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for distillate oil and natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- (2) The permittee shall maintain monthly records of the following information:
 - a. the total quantity of natural gas burned, in cubic feet per month, for emissions units B019 and B020 combined;
 - b. the rolling, 12-month summation of the total quantity of natural gas burned, in cubic feet, for emissions units B019 and B020 combined;
 - c. the total quantity of No. 2 fuel oil burned, in gallons per month, for emissions units B019 and B020 combined;
 - d. the rolling, 12-month summation of the total quantity of No. 2 fuel oil burned, in gallons, for emissions units B019 and B020 combined;



- e. the total heat input of the natural gas and No.2 fuel oil burned, in MMBtu per month, for emissions units B019 and B020 combined ((average heat content of No. 2 fuel oil based upon the results of the analyses of the fuel burned that month X monthly gallons of fuel oil burned) + (1000 Btu/cubic foot X monthly cubic feet of natural gas burned))/1,000,000); and
 - f. the rolling, 12-month summation of the total heat input, in MMBtu, for emissions units B019 and B020 combined.
- (3) The Ohio EPA, Central Office shall approve the initial certification testing protocol, and shall review all initial certification testing data. Upon a satisfactory review of the initial certification testing data, Ohio EPA shall acknowledge that the NOx predictive emissions monitoring system meets the requirements of Performance Specification 16 by sending a Certification Letter. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- (4) The predictive emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes all sensors, algorithms, and data recording/processing hardware and software.
- (5) The permittee shall install, operate, and maintain equipment to continuously predict and record NOx emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

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

- a. predicted emissions of NOx in parts per million on an instantaneous (one-minute) basis;
- b. predicted emissions of a diluent gases (O2 or CO2) in percent on an instantaneous (one-minute) basis;
- c. emissions of NOx in all units of the applicable standard(s) in the appropriate averaging period;
- d. results of quarterly relative accuracy audits;
- e. results of daily sensor checks and a list of adjustments or repairs/replacements that are made;
- f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- g. hours of operation of the emissions unit, NOx predictive emissions monitoring system, and control equipment;
- h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the NOx predictive emissions monitoring system;



- i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the NOx predictive emissions monitoring system; as well as,
 - j. the reason (if known) and the corrective actions taken (if any) for each such event in h. and i.
- (6) The permittee shall operate and maintain the continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from this emissions unit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

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

- a. percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
 - b. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - c. hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;
 - d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
 - e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
 - f. the reason (if known) and the corrective actions taken (if any) for each such event in (d) and (e).
- (7) The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office verifying that the continuous opacity monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- (8) The permittee shall maintain records of the oil burned in this emissions unit in accordance with the following procedures:
- a. For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).



A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

- b. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.
- (9) The PTI for this emissions unit was evaluated based on information contained in the PTI application associated with this emissions unit. Prior to any physical change or change in the method of operation (i.e. using an alternative fuel) associated with this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation, is (are) defined as a modification, then the permittee shall obtain a final PTI modification prior to performing such a change and shall incorporate such changes into the Title V permit following the procedures for a minor permit modification or significant permit modification, as appropriate.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. an identification of all exceedances of the rolling, 12-month natural gas usage limitation (combined total for B019 and B020);
 - b. an identification of all exceedances of the rolling, 12-month No. 2 fuel oil usage limitation (combined total for B019 and B020);
 - c. an identification of all exceedances of the rolling, 12-month heat input limitation (combined total for B019 and B020);
 - d. an identification of all exceedances of the SO₂ emission limitation in pound per MMBtu (based upon each shipment of oil); and
 - e. an identification of all exceedances of the sulfur content limitation in percent by weight (based upon each shipment of oil).
- The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its NO_x predictive emissions 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 predicted emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, 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, model number, and serial number of the NO_x predictive emissions monitoring systems;
 - iii. a description of any change in the equipment that comprises the predictive emission monitoring system, including any change to the hardware, and/or changes to the software in the predictive algorithms;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - 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 NO_x predictive emissions monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly relative accuracy audits;
 - ix. unless previously submitted, the results of any relative accuracy test audit showing the NO_x predictive emissions monitoring system out-of-control and the compliant results following any corrective actions;
 - x. the date, time, and duration of any/each malfunction** of the NO_x predictive emissions monitoring system, emissions unit, and/or control equipment;
 - xi. the date, time, and duration of any downtime** of the NO_x predictive emissions monitoring system and/or control equipment while the emissions unit was in operation; and
 - xii. the reason (if known) and the corrective actions taken (if any) for each event in x. and xi.



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

* 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.

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity 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 opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance.
 - 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 opacity monitor;
 - iii. a description of any change in the equipment that comprises the continuous opacity monitoring system (COMS), including any change to the hardware, changes to the software that may affect COMS readings, and/or changes in the location of the COMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total operating time (hours) of the emissions unit;
 - vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
 - vii. the date, time, and duration of any/each malfunction** of the continuous opacity monitoring system, emissions unit, and/or control equipment;
 - viii. the date, time, and duration of any downtime** of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and



- ix. the reason (if known) and the corrective actions taken (if any) for each event in (b)(vii) and (viii).

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

* where no exceedance of the opacity limit has 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 quarterly EER report

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

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:

When combusting natural gas, visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

When combusting No. 2 fuel oil, visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except for one six-minute period per hour of not more than 27 percent opacity, except as provided by 60.43b(g).

Applicable Compliance Method:

Ongoing compliance with the opacity limitations contained in this permit, including 40 CFR Part 60, Subpart Db, 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 testing and recertification requirements of 40 CFR Part 60.

- b. Emission Limitations:

PE shall not exceed 0.005 pound per MMBtu when combusting natural gas.

PE shall not exceed 0.02 pound per MMBtu when combusting No. 2 fuel oil.

Applicable Compliance Method:

The PE emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-2107, submitted June 21, 1990.

If required, the permittee shall demonstrate compliance with these emission limitations through separate emission tests performed in accordance with 40



CFR Part 60, Appendix A, Methods 1 through 5 while firing natural gas and while firing No. 2 fuel oil.

c. Emission Limitations:

CO emissions shall not exceed 0.03 pound per MMBtu, when combusting natural gas or No. 2 fuel oil.

VOC emissions shall not exceed 0.001 pound per MMBtu, when combusting natural gas or No. 2 fuel oil.

Applicable Compliance Method:

The CO and VOC emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-2107, submitted June 21, 1990.

If required, the permittee shall demonstrate compliance with these emission limitations through separate emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, 10, and 25 while firing natural gas and while firing No. 2 fuel oil.

d. Emission Limitations:

SO₂ emissions shall not exceed 0.6 pound per MMcf of natural gas burned; and

SO₂ emissions shall not exceed 0.3 pound per MMBtu, when combusting No. 2 fuel oil.

Applicable Compliance Method:

For the combustion of natural gas, the SO₂ emission limitation above is based upon the emissions unit's potential to emit and a vendor-supplied emission factor taken from US EPA AP-42, dated 10/1986, and provided with the application for PTI 14-2107, submitted June 21, 1990. Compliance may be determined by using the most recent SO₂ emission factor found in AP-42 Section 1.4, Table 1.4-2, dated 7/1998.

For the combustion of No. 2 fuel oil, continuous compliance with the allowable sulfur dioxide emission limitation above shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation in accordance with the record keeping requirements in d)(8).

e. Emission Limitation:

NO_x emissions shall not exceed 0.20 pound per MMBtu, when combusting natural gas or No. 2 fuel oil.



Applicable Compliance Method:

The NO_x emission limitation above is based upon the allowable limit for natural gas and fuel oil-fired steam generating units in 40 CFR Part 60.44b.

Ongoing compliance with the NO_x emission limitations contained in this permit, including 40 CFR Part 60, Subpart Db, 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 testing and recertification requirements of 40 CFR Part 60.

f. Emission Limitations:

PE from emissions units B019 and B020, combined, shall not exceed 5.08 TPY, based upon a rolling, 12-month summation;

SO₂ emissions from emissions units B019 and B020, combined, shall not exceed 21.06 TPY, based upon a rolling, 12-month summation;

CO emissions from emissions units B019 and B020, combined, shall not exceed 24.5 TPY, based upon a rolling, 12-month summation;

VOC emissions from emissions units B019 and B020, combined, shall not exceed 0.82 TPY, based upon a rolling, 12-month summation; and

NO_x emissions from emissions units B019 and B020, combined, shall not exceed 163.3 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method:

The above emission limitations are based upon the operational restrictions in c)(2) - c)(4) and the short-term emission rates or potential to emit, in lb/MMBtu or lb/MMcf, for each pollutant. Compliance with the 12-month rolling emission limitations for emissions units B019 and B020 shall be assumed as long as compliance with the short-term limitations are maintained, the fuel usages listed in c)(2) and c)(3) are not exceeded, and the combined heat input listed in c)(4) is not exceeded.

- (2) The permittee shall perform the initial certification test for the predictive emissions monitoring system in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16.

Annual recertification testing shall be performed in accordance with and at the frequencies required by 40 CFR Part 60, Appendix B, Performance Specification 16 and Ohio Revised Code (ORC), section 3704.03(I). Re-certification testing while burning fuel oil will not be required since the emissions unit's operation while burning fuel oil is limited to less than 5 percent of the unit's operating time.



Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests.

Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Initial and re-certification of the NO_x predictive emissions monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16 and ORC section 3704.03(I).

g) Miscellaneous Requirements

- (1) The terms and conditions in this Permit to Install supersede the terms and conditions with regard to emissions units B019 and B020 in Permit to Install 14-2107 as issued on January 24, 1991.
- (2) The following terms are included for historical reference, quoted directly from PTI 14-2107:
 - a. Sixty days following the start-up of the boilers outlined in this permit (B019 and B020), boilers identified by the Ohio EPA as B001 (1431070849), B004 (1431070849) shall be shutdown. Removal or the disconnection from the common steam header in order to be inoperative shall commence thirty (30) days following the shutdown. SWOAQA shall be notified two (2) weeks following each milestone as outlined above.
 - b. The emissions as outlined in this permit will be offset by the shutdown of B001 and B004. The shutdown will result in a net increase/decrease of emissions as outlined in the following table and based upon those net increases/decreases, the Prevention of Significant Deterioration (PSD)(40 CFR Part 52.21) review was not triggered:



Final Permit-to-Install
University of Cincinnati
Permit Number: P0117618
Facility ID: 1431070849
Effective Date: 2/12/2015

Pollutant	B001 and B004 shutdown emission reductions (avg. 1988-1989)(TPY)	PTI 14-2107 new source emissions rolling 12 month period (B019-B020)(TPY)	New increase/decrease rolling 12-month period (TPY)
Particulate	10.11	5.08	-5.03
SO2	423.84	21.06	-402.78
CO	57.08	24.5	-32.58
NOx	123.3	163.3	+40.0
VOC	0.74	0.82	+0.08



2. Emissions Unit Group -Combustion Turbines: P003 & P004

EU ID	Operations, Property and/or Equipment Description
P003	13.5 MW Natural Gas/ No. 2 Fuel Oil-fired Turbines with 98.5 MMBtu/hr duct burner
P004	13.5 MW Natural Gas/ No. 2 Fuel Oil-fired Turbines with 98.5 MMBtu/hr duct burner

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) g)(1).

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.	OAC rule 3745-31-05(A)(3) (PTI 14-05950, issued 6/12/2008)	<u>Emission Limitations During Normal Operation without Duct Burner Firing:</u> PE shall not exceed 1.08 pounds per hour; SO ₂ emissions shall not exceed 0.10 pound per hour; OC emissions shall not exceed 0.56 pound per hour; and CO emissions shall not exceed 1.97 pounds per hour. <u>Emission Limitations During Normal Operation with Duct Burner Firing:</u> PE shall not exceed 2.07 pounds per hour; SO ₂ emissions shall not exceed 0.16 pound per hour; OC emissions shall not exceed 0.78 pound per hour; and CO emissions shall not exceed 2.84



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pounds per hour.</p> <p><u>Emission Limitations During Backup Operation:</u></p> <p>PE shall not exceed 1.79 pounds per hour;</p> <p>SO₂ emissions shall not exceed 7.54 pounds per hour;</p> <p>OC emissions shall not exceed 0.55 pound per hour; and</p> <p>CO emissions shall not exceed 1.92 pounds per hour.</p> <p>See b)(2)a. through b)(2)d., c)(1), and c)(2).</p> <p>The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D).</p>
b.	<p>OAC rules 3745-31-10 through 3745-31-20</p> <p>Prevention of Significant Deterioration</p>	<p><u>Emission Limitations During Normal Operation without Duct Burner Firing:</u></p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 25 ppmvd at 15% oxygen and 14.71 pounds per hour; and</p> <p>Particulate matter 10 microns and less in diameter (PM₁₀) emissions shall not exceed 0.0073 pound per MMBtu and 1.08 pounds per hour.</p> <p><u>Emission Limitations During Normal Operation with Duct Burner Firing:</u></p> <p>NO_x emissions shall not exceed 0.10 pound per MMBtu and 24.56 pounds per hour; and</p> <p>PM₁₀ emissions shall not exceed 0.0084 pound per MMBtu and 2.07 pounds per hour.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><u>Emission Limitations During Backup Operation:</u></p> <p>NO_x emissions shall not exceed 96 ppmvd at 15% oxygen and 54.91 pounds per hour; and</p> <p>PM₁₀ emissions shall not exceed 0.013 pound per MMBtu and 1.79 pounds per hour.</p> <p><u>Emission Limitations from the Turbines and Duct Burners for Emissions Units P003 and P004, combined, at all load conditions, including startup, shutdown, normal operation, and backup operation:</u></p> <p>NO_x emissions shall not exceed 183.0 TPY *;</p> <p>PM₁₀ emissions shall not exceed 14.0 TPY*; and</p> <p>Benzene emissions shall not exceed 0.0026 TPY*.</p> <p>*Based on a rolling, 12-month summation.</p> <p>PM₁₀ is assumed to be equivalent to PE.</p> <p>See c)(3) through c)(8).</p>
c.	<p>OAC rule 3745-31-05(D)</p> <p>(The rule cited in PTI 14-05950, issued 6/12/2008, was then current OAC rule 3745-31-05(C))</p>	<p><u>Emission Limitations from the Turbines and Duct Burners for Emissions Units P003 and P004, combined, at all load conditions, including startup, shutdown, normal operation, and backup operation:</u></p> <p>PE shall not exceed 14.0 TPY*;</p> <p>SO₂ emissions shall not exceed 3.3 TPY*;</p> <p>OC emissions shall not exceed 6.7 TPY*; and</p> <p>CO emissions shall not exceed 85.7 TPY*.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		*Based on a rolling, 12-month summation. See c)(3) through c)(8).
d.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-11(B)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-06(F)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	40 CFR Part 75 and OAC Chapter 3745-103 Acid Rain	See b)(2)k.
h.	40 CFR Part 60, Subpart GG (40 CFR 60.330-60.335) Standards of Performance (NSPS) for Stationary Gas Turbines	The emission standards specified by this rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and OAC rule 3745-31-10 through 3745-31-20. See b)(2)j.
i.	40 CFR Part 60, Subpart Dc (40 CFR 60.40c-60.48c) Standards of Performance (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units	The emission standards specified by this rule for natural gas combustion in the duct burners are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)j.
j.	40 CFR Part 63, Subpart Yyyy (40 CFR 63.6080-6175) [In accordance with 40 CFR 63.6090(a) and (a)(1), these emissions units are existing stationary combustion turbines constructed on or before January 14, 2003.]	Exempt from Subpart Yyyy and Subpart A of 40 CFR Part 63 pursuant to 63.6090(b)(4).

(2) Additional Terms and Conditions



- a. The pound per hour emission limitations for PE, PM₁₀, SO₂, and OC are based on the emissions unit's potential to emit. Therefore, no hourly monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average, except during periods of malfunction as provided in OAC rule 3745-17-07(A)(3)(c).
- c. When burning natural gas, during startup/shutdown cycle, the following emission limits shall not be exceeded for each emissions unit:
 - i. 30.0 pounds of NO_x per startup/shutdown cycle; and
 - ii. 275 pounds of CO per startup/shutdown cycle.
- d. When burning diesel fuel, during startup/shutdown cycle, the following emission limits shall not be exceeded for each emissions unit:
 - i. 72.0 pounds of NO_x per startup/shutdown cycle; and
 - ii. 275 pounds of CO per startup/shutdown cycle.
- e. "Normal Operation" shall be defined as the period when the combustion turbine achieves dry low NO_x (SoLoNox) mode, burning natural gas at steady state operation, between an electrical output of 7.25 megawatts and full load.
- f. "Backup Operation" shall be defined as the period when the combustion turbine achieves dry low NO_x (SoLoNox) mode, burning diesel fuel at steady state operation, between an electrical output of 9.43 megawatts and full load. Duct burners shall not operate during periods of backup operation.
- g. "Full Load" shall be defined as a load equal to the maximum actual electrical output of 13.5 megawatts (depending on the ambient temperature and relative humidity).
- h. "Startup" shall be defined as the period between initial fuel light-off in the combustion turbine until the combustion turbine reaches normal or backup operations.
- i. "Shutdown" shall be defined as the period beginning when the combustion turbine leaves normal or backup operations until combustion has ceased.
- j. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting the applicable monitoring, record keeping, and reporting requirements of 40 CFR Part 60, Subpart GG and Subpart Dc.

The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio



Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

- k. If the permittee becomes subject to the requirements of OAC Chapter 3745-103 and 40 CFR Part 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.

- l. Each continuous NOx and CO predictive emissions monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16. At least 45 days before commencing certification testing of the NOx and CO predictive emissions monitoring system(s), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NOx and CO predictive emissions continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx and CO predictive emissions monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct daily sensor evaluations; to conduct quarterly relative accuracy audits; and to conduct yearly relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60, Appendix B, Performance Specification 16.

- m. The predictive emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes all sensors, algorithms, and data recording/processing hardware and software. Any change to algorithms used to predict NOx and CO emissions shall require new certification testing of the NOx and CO predictive emissions monitoring systems.

c) **Operational Restrictions**

- (1) The permittee shall only burn natural gas in the duct burner portion of each emissions unit and, except as allowed in c)(3) below, the permittee shall only burn natural gas in the combustion turbine portion of each emissions unit. The maximum sulfur content of natural gas shall not exceed 2 grains per 100 standard cubic feet.

- (2) The sulfur content of the diesel fuel used in the combustion turbines shall not exceed 0.05 percent by weight.

- (3) The maximum annual operating hours while burning diesel fuel in the combustion turbines for emissions units P003 and P004, combined, shall not exceed 576 hours, based upon a rolling, 12-month summation of the operating hours.

- (4) The maximum annual natural gas usage in the duct burners of emissions units P003 and P004, combined, shall not exceed 1000 million standard cubic feet, based upon a rolling, 12-month summation of the natural gas usage figures.



- (5) Duct burners shall not operate during backup mode operation.
 - (6) The number of startup/shutdown cycles per year shall not exceed 480 cycles for emissions units P003 and P004, combined.
 - (7) A startup/shutdown cycle shall not exceed a maximum total duration of 60 minutes.
 - (8) The maximum annual heat input rate to the combustion turbines of emissions units P003 and P004, combined, shall not exceed 2,354,400 MMBtu, based upon a rolling, 12-month summation of the fuel usage figures.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall maintain daily records of the following information:
 - a. the emissions unit's actual electrical output for each operating hour;
 - b. the natural gas usage rate in the duct burner of each emissions unit; and
 - c. for each day during which the permittee burns a fuel other than natural gas and/or diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in each emissions unit.
 - (2) The permittee shall perform weekly checks, when the emissions unit is in operation, during daylight hours, and when weather conditions allow, for any visible particulate emissions from the stack/stacks serving this/these emissions unit(s). The presence or absence of any visible emissions shall be noted in an operation log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and,
 - e. any corrective actions taken to eliminate the visible emissions.
 - (3) The permittee shall maintain monthly records of the following information from emissions units P003 and P004, combined:
 - a. the natural gas usage rate in the combustion turbines for each month, in standard cubic feet;
 - b. the natural gas usage rate in the duct burners for each month, in standard cubic feet;
 - c. the diesel fuel usage rate in the combustion turbines for each month, in gallons;



- d. the hours of operation of the combustion turbines;
 - e. the hours of operation of the duct burners and the fuel used during those hours of operation;
 - f. the hours of operation of the combustion turbines while burning diesel fuel;
 - g. the number of startup/shutdown cycles for each month;
 - h. the rolling, 12-month summation of the hours of operation of the combustion turbines while burning diesel fuel;
 - i. the rolling, 12-month summation of the natural gas usage rate in the duct burners;
 - j. the monthly emission rate for NO_x, CO, SO₂, PE, PM₁₀, and OC, in tons;
 - k. the rolling, 12-month summation of NO_x, CO, SO₂, PE, PM₁₀, and OC, in tons; and
 - l. the rolling, 12-month summation of the actual heat input rate to the combustion turbines.
- (4) The permittee shall maintain monthly records of the following information for each emissions unit in order to monitor compliance with the startup and shutdown emission limitations and operational restrictions:
- a. the date and duration, in minutes, of each startup and shutdown cycle;
 - b. the emissions, in pounds, for NO_x and CO when burning natural gas for each startup and shutdown cycle; and
 - c. the emissions, in pounds, for NO_x and CO when burning diesel fuel for each startup and shutdown cycle.
- (5) The Ohio EPA, Central Office shall approve the initial certification testing protocol, and shall review all initial certification testing data. Upon a satisfactory review of the initial certification testing data, Ohio EPA shall acknowledge that the NO_x and CO predictive emissions monitoring system meets the requirements of Performance Specification 16 by sending a Certification Letter. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- (6) The predictive emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes all sensors, algorithms, and data recording/processing hardware and software.
- (7) The permittee shall install, operate, and maintain equipment to continuously predict and record NO_x and CO emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.



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

- a. predicted emissions of NOx and CO in parts per million on an instantaneous (one-minute) basis;
 - b. predicted emissions of a diluent gas (O2 or CO2) in percent on an instantaneous (one-minute) basis;
 - c. emissions of NOx and CO in all units of the applicable standard(s) in the appropriate averaging period;
 - d. results of quarterly relative accuracy audits;
 - e. results of daily sensor checks and a list of adjustments or repairs/replacements that are made;
 - f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
 - g. hours of operation of the emissions unit, NOx and CO predictive emissions monitoring system, and control equipment;
 - h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the NOx and CO predictive emissions monitoring system;
 - i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the NOx and CO predictive emissions monitoring system; as well as,
 - j. the reason (if known) and the corrective actions taken (if any) for each such event in h. and i.
- (8) The permittee shall maintain records of the diesel fuel burned in each emissions unit in accordance with the following procedures:
- a. For each shipment of diesel fuel received for burning in the emissions unit, the permittee shall collect or require the diesel fuel supplier to collect a representative grab sample of diesel fuel and maintain records of the total quantity of diesel fuel received, the permittee's or diesel fuel supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch and the quality of the diesel fuel for those loads may be represented by a single batch analysis from the supplier.
 - b. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240



Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

- (9) The permittee maintain records demonstrating that the natural gas fired in each emission unit meets the definition of natural gas in 40 CFR 60.331(u). The permittee shall use one of the following sources of information to make the required demonstration:
- a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content if the fuel is 2.0 grains/100 scf or less; or
 - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 2.0 grains/100 scf. 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 40 CFR 75 is required.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. an identification of all exceedances of the NO_x and CO emission limitations specified in b)(2)c. and b)(2)d. during startup/shutdown cycles;
 - b. an identification of all exceedances of the maximum sulfur content of natural gas specified in c)(1);
 - c. an identification of all exceedances of the rolling, 12-month limitation for annual operating hours while burning diesel fuel specified in c)(3);
 - d. an identification of all exceedances of the rolling, 12-month limitation for natural gas usage in the duct burners specified in c)(4);
 - e. an identification of all exceedances of the maximum number of startup/shutdown cycles per year specified in c)(6);
 - f. an identification of all exceedances of the maximum total duration for each startup/shutdown cycle specified in c)(7); and
 - g. an identification of all exceedances of the rolling, 12-month limitation for the annual heat input rate specified in c)(8).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its NO_x and CO predictive emissions 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 and CO predicted emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, 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, model number, and serial number of the NO_x and CO predictive emissions monitoring systems;
 - iii. a description of any change in the equipment that comprises the predictive emission monitoring system, including any change to the hardware, and/or changes to the software in the predictive algorithms;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total NO_x and CO emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the NO_x and CO predictive emissions monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly relative accuracy audits;
 - ix. unless previously submitted, the results of any relative accuracy test audit showing the NO_x and CO predictive emissions monitor out-of-control and the compliant results following any corrective actions;
 - x. the date, time, and duration of any/each malfunction** of the NO_x and CO predictive emissions monitoring system, emissions unit, and/or control equipment;
 - xi. the date, time, and duration of any downtime** of the NO_x and CO predictive emissions monitoring system and/or control equipment while the emissions unit was in operation; and
 - xii. the reason (if known) and the corrective actions taken (if any) for each event in x. and xi.



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

* 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.

- (3) The permittee shall submit semiannual written reports that identify:
- a. all weeks during which any visible particulate emissions were observed from the stack(s) serving the emissions unit; and
 - b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

- (4) The permittee shall submit annual reports which specify the total NO_x, SO₂, OC, PE, PM₁₀ and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year. The Title V Fee Emission Report (FER) required to be submitted annually by April 15 for the facility will also satisfy the emission reporting requirement of this condition.
- (5) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable diesel fuel sulfur content limitation specified in c)(2) of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

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:
 - i. During Normal Operation without Duct Burner Firing:
 - PE shall not exceed 1.08 pounds per hour;
 - SO₂ emissions shall not exceed 0.10 pound per hour;
 - OC emissions shall not exceed 0.56 pound per hour;
 - CO emissions shall not exceed 1.97 pounds per hour;



NO_x emissions shall not exceed 25 ppmvd at 15% oxygen and 14.71 pounds per hour; and

PM₁₀ emissions shall not exceed 0.0073 pound per MMBtu and 1.08 pounds per hour.

ii. During Normal Operation with Duct Burner Firing:

PE shall not exceed 2.07 pounds per hour;

SO₂ emissions shall not exceed 0.16 pound per hour;

OC emissions shall not exceed 0.78 pound per hour;

CO emissions shall not exceed 2.84 pounds per hour;

NO_x emissions shall not exceed 0.10 pound per MMBtu and 24.56 pounds per hour; and

PM₁₀ emissions shall not exceed 0.0084 pound per MMBtu and 2.07 pounds per hour.

iii. During Backup Operation:

PE shall not exceed 1.79 pounds per hour;

SO₂ emissions shall not exceed 7.54 pounds per hour;

OC emissions shall not exceed 0.55 pound per hour;

CO emissions shall not exceed 1.92 pounds per hour;

NO_x emissions shall not exceed 96 ppmvd at 15% oxygen and 54.91 pounds per hour; and

PM₁₀ emissions shall not exceed 0.013 pound per MMBtu and 1.79 pounds per hour.

iv. During Startup/Shutdown Cycle:

When burning natural gas, 30.0 pounds of NO_x per startup/shutdown cycle and 275 pounds of CO per startup/shutdown cycle; and

When burning diesel fuel, 72.0 pounds of NO_x per startup/shutdown cycle and 275 pounds of CO per startup/shutdown cycle.

Applicable Compliance Methods:

The PE, OC, and PM₁₀ emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-05950, submitted May 23, 2007. All particulate emissions



(PE) are assumed to be equivalent to PM₁₀ emissions. If required, compliance with these emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and the pollutant-specific Methods 5, 25, and 201, respectively.

The SO₂ emission limitations above are based upon the emissions unit's potential to emit and the US EPA AP-42 emission factors found in Section 3.1, Table 3.1-2a, dated 4/2000. Compliance with the maximum sulfur content limitations for natural gas and diesel fuel in c)(1) and c)(2) and the associated monitoring requirements in d)(8) and d)(9) will demonstrate compliance with the SO₂ emission limitations. If required, compliance with the emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and Method 6.

Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The NO_x and CO emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-05950, submitted May 23, 2007.

Ongoing compliance with the NO_x emissions 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 testing and recertification requirements of 40 CFR Part 60.

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.

b. Emission Limitations:

During all load conditions, including startup, shutdown, normal operation, and backup operation, from the turbines and duct burners for emissions units P003 and P004, combined:

PE shall not exceed 14.0 TPY, as a rolling 12-month summation;

SO₂ emissions shall not exceed 3.3 TPY, as a rolling 12-month summation;

OC emissions shall not exceed 6.7 TPY, as a rolling 12-month summation;

CO emissions shall not exceed 85.7 TPY, as a rolling 12-month summation;

NO_x emissions shall not exceed 183.0 TPY, as a rolling 12-month summation;



PM₁₀ emissions shall not exceed 14.0 TPY, as a rolling 12-month summation; and

Benzene emissions shall not exceed 0.0026 TPY, as a rolling 12-month summation.

Applicable Compliance Methods:

The PE, PM₁₀, SO₂, OC, CO, and NO_x emission limitations above are based upon the emission factors used to establish the short-term potential to emit (pound per hour or pound per MMBtu) for each pollutant and the operational restrictions established in c)(3) through c)(8) of this permit. Compliance with the 12-month rolling PE, PM₁₀, SO₂, OC, CO, and NO_x emission limitations above shall be demonstrated by the record keeping requirements in d)(3).

The benzene emission limitation above is based upon the potential to emit and US EPA AP-42 emission factors found in Section 3.1, Table 3.1-3, dated 4/2000, and the operational restrictions established in c)(3) through c)(8) of this permit. Compliance with the 12-month rolling benzene emission limitation shall be assumed as long as compliance with the operational restrictions in c)(3) through c)(8) of this permit are not exceeded.

c. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average, except during periods of malfunction as provided in OAC rule 3745-17-07(A)(3)(c).

Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

No Method 9 visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

- (2) The permittee shall perform the initial certification test for the predictive emissions monitoring system in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16.

Annual recertification testing shall be performed in accordance with and at the frequencies required by 40 CFR Part 60, Appendix B, Performance Specification 16 and Ohio Revised Code (ORC), section 3704.03(I). Re-certification testing while burning fuel oil will not be required since the emissions unit's operation while burning fuel oil is limited to less than 5 percent of the unit's operating time.



Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests.

Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Initial and re-certification of the (NO_x and CO) predictive emissions monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specification 16 and ORC section 3704.03(l).

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit-to-install.
- (2) The terms and conditions in this Permit to Install supersede the terms and conditions with regard to emissions units P003 and P004 in Permit to Install 14-05950 as issued on 6/12/2008.