



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

12/2/2010

Certified Mail

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

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

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1431070849
Permit Number: P0107225
Permit Type: Administrative Modification
County: Hamilton

Dear Permit Holder:

Enclosed please find a final 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. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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 Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

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. If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

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



FINAL

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

Facility ID: 1431070849
Permit Number: P0107225
Permit Type: Administrative Modification
Issued: 12/2/2010
Effective: 12/2/2010



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

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Authorization

Facility ID: 1431070849
Facility Description: Central Utility and East Campus Utility Plants (CUP & ECUP)
Application Number(s): M0001043
Permit Number: P0107225
Permit Description: Administrative modification to correct typographic errors.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 12/2/2010
Effective Date: 12/2/2010

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 EPA District Office or local air agency responsible for processing and administering your permit:

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660
(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



Chris Korleski
Director

Authorization (continued)

Permit Number: P0107225
Permit Description: Administrative modification to correct typographic errors.

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

Emissions Unit ID:	B109
Company Equipment ID:	ECUP Boiler No. 5
Superseded Permit Number:	P0106093
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

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

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

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 Hamilton County Dept. of Environmental Services.

- (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 Hamilton County Dept. of Environmental Services. 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 (i.e., postmarked) to the Hamilton County Dept. of Environmental Services 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 Hamilton County Dept. of Environmental Services 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) 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.
- c) 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.
- d) The permittee shall submit progress reports to the Hamilton County Dept. of Environmental Services 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 Hamilton County Dept. of Environmental Services.

- 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 Hamilton County Dept. of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

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).

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 party 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 Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying 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.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- 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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.

C. Emissions Unit Terms and Conditions



1. **B109, ECUP Boiler No. 5**

Operations, Property and/or Equipment Description:

96.5 MMBtu/Hr Natural Gas/ 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) 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(D) (Avoiding PSD for NOx) (Avoiding PSD and non-attainment review for SO2)	<u>Emissions from Natural Gas Use:</u> Nitrogen oxides (NO _x) emissions shall not exceed 0.036 lb/mmBtu. <u>Emissions from No. 2 Fuel Oil Use:</u> Nitrogen oxides (NO _x) emissions shall not exceed 0.14 lb/mmBtu. <u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u> Nitrogen Oxides (NO _x) shall not exceed 22.25 tons per year(TPY), based upon a rolling, 12-month summation. <u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u> Nitrogen Oxides (NO _x) shall not exceed 22.25 TPY, based upon a rolling, 12-month summation. Sulfur dioxide (SO ₂) emissions shall not exceed 35 TPY, based upon a rolling, 12-month summation. See b)(2)a., b)(1)i., c)(3) and c(4).
b.	ORC 3704.03(T)	<u>Emissions from Natural Gas Use:</u>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Carbon monoxide (CO) emissions shall not exceed 0.040 lb/mmBtu.</p> <p><u>Emissions from No. 2 Fuel Oil Use:</u></p> <p>Carbon monoxide (CO) emissions shall not exceed 0.040 lb/mmBtu.</p> <p><u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u></p> <p>Carbon monoxide (CO) emissions shall not exceed 16.9 TPY, based upon a rolling, 12-month summation.</p>
c.	OAC paragraph 3745-31-05(A)(3), as effective 11/30/01	<p><u>Emissions from Natural Gas Use:</u></p> <p>Particulate emissions (PE) and particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.008 lb/mmBtu.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.001 lb/mmBtu.</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 0.01 lb/mmBtu.</p> <p><u>Emissions from No. 2 Fuel Oil Use:</u></p> <p>Particulate emissions (PE) and particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.014 lb/mmBtu.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.051 lb/mmBtu.</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 0.01 lb/mmBtu.</p> <p><u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u></p> <p>Particulate emissions (PE) and particulate matter less than 10 microns in diameter (PM10) shall not exceed 3.8 TPY.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Sulfur dioxide (SO₂) emissions shall not exceed 3.7 TPY.</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 4.65 TPY.</p> <p>Visible particulate emissions from any stack shall not exceed 10% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.</p> <p>See b)(2)b.</p>
d.	OAC paragraph 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)c.
e.	OAC 3745-17-10(B)(1)	<p>The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>Once b)(2)b. is implemented, then this emissions unit is subject to the following PE limitation of 0.02 pound per million Btu of actual heat input.</p>
f.	OAC rule 3745-17-07(A)(1)	<p>The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart Dc.</p> <p>See b)(2)e.</p>
g.	OAC rule 3745-18-06(A)	When burning natural gas, exempt from paragraphs (D), (F) and (G) of OAC rule 3745-18-06 and from OAC rules 3745-18-07 to 3745-18-94 during any calendar day in which natural gas is the only fuel burned.
h.	OAC rule 3745-18-06(D)	When burning No. 2 fuel oil, the emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule OAC rule 3745-31-05(A)(3) or OAC rule 3745-31-05(E) or 40 CFR Part 60 Subpart Dc.
i.	40 CFR Part 60 Subpart Dc	The SO ₂ emission limitation of 0.5 pound per million Btu of actual heat input specified by this rule is less stringent than the SO ₂ emission limitation established pursuant to OAC rule 3745-31-05(A)(3) or OAC rule 3745-31-05(E).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>The limit of 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), as of as effective 11/30/01.</p> <p>See b)(2)d. and b)(2)e.</p>
j.	OAC 3745-31-05(E), as effective 12/01/06 (Avoiding State Modeling for SO2)	<p>The SO₂ emission limitation specified by this rule is equivalent to the SO₂ emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p><u>Emissions from Natural Gas Use:</u></p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.001 lb/mmBtu.</p> <p><u>Emissions from No. 2 Fuel Oil Use:</u></p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.051 lb/mmBtu.</p> <p><u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u></p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 3.7 TPY.</p> <p>See b)(2)e.</p>

(2) Additional Terms and Conditions

- a. This permit establishes the following federally enforceable emission limitations for purposes of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD). The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) and c)(3) which limit fuel usage type and require flue gas recirculation listed in c)(4).

The federally enforceable emission limitations established above for the use of No. 2 fuel oil result in an annual restricted PTE of 22.25 tons for NO_x and 35 tons per year of SO₂. Annual restricted PTE levels were determined by multiplying the federally enforceable pound per million Btu emission limitations by a maximum allowable rolling 12-month oil usage and dividing by 2000. The annual

restricted PTE levels have been established in tons per year limitations [see b)(1)a.]

- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.
- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE/PM₁₀, SO₂, and VOC emissions from this air contaminant source since the uncontrolled potential to emit for PE/PM₁₀, SO₂, and VOC emissions is less than ten tons per year.
- d. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).
- e. If U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan, the 40 CFR, Part 60, Subpart Dc. visible particulate emission and SO₂ emission limitation in b)(1)i., and the OAC 3745-31-05(E), SO₂ emission limit in b)(1)j. shall apply.

c) **Operational Restrictions**

- (1) The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
- (2) The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.051 lb/mmBtu of actual heat input.
- (3) The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 940,000 gallons per rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the No. 2 fuel oil usage levels specified in the following table:



Month	Maximum Allowable Cumulative Usage (gallons)
1	188,000
1-2	376,000
1-3	564,000
1-4	752,000
1-5	940,000
1-6	940,000
1-7	940,000
1-8	940,000
1-9	940,000
1-10	940,000
1-11	940,000
1-12	940,000

After the first 12 calendar months of operation, compliance with the annual No. 2 fuel oil usage limitation shall be based upon a rolling, 12-month summation of the usage rates.

(4) This emissions unit is required to employ flue gas recirculation.

d) **Monitoring and/or Recordkeeping Requirements**

(1) The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below:

a. **Alternative 1:**

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. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee'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).

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.

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 and D4294), or equivalent methods as approved by the Director.

- (2) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.
- (3) The permittee shall maintain monthly records of the following information:
 - a. The total volume of natural gas (mmft³) burned in this emissions unit.
 - b. The total number of gallons of No. 2 fuel oil used in this boiler for each month.
 - c. During the first 12 calendar months of operation, the permittee shall record the cumulative usage rates for each calendar month.
 - d. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the gallons of No. 2 fuel oil used.
 - e. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the CO, SO₂, and NO_x emissions emitted from this emissions unit.

e) Reporting Requirements

- (1) Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):
 - a. construction date (no later than 30 days after such date);
 - b. actual start-up date (within 15 days after such date); and,
 - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Hamilton County Department of Environmental Services

250 Wm. H. Taft Rd.

Cincinnati, Ohio 45219

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any exceedance of the allowable sulfur dioxide emission limitation, pounds sulfur dioxide/mmBtu actual heat input.
 - b. the rolling, 12-month No. 2 fuel oil usage limitation.
 - c. the rolling, 12-month NO_x and SO₂ emission limitation.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the standard terms and conditions of this permit.

- (4) The permittee shall submit annual reports that specify the total CO and SO₂ emissions from this emissions unit during the previous calendar year. The reports shall be submitted by January 31 of each year.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
 - a. Emission Limitations:

10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

20% opacity as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

0.036 lb/mmBtu of NO_x emissions while burning natural gas.

Applicable Compliance Method:

The short-term emission limitation for NO_x was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be determined by converting the 36.0 lb/10⁶ scf emission factor into lbs of NO_x/mmBtu by dividing by 1000 Btu/scf.

c. Emission Limitation:

0.14 lb/mmBtu of NO_x emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 20 lbs of NO_x/10³ gallons of No. 2 fuel oil emission factor into lb of NO_x/mmBtu value by dividing by 140 mmBtu/10³ gal.

d. Emission Limitation:

NO_x emissions shall not exceed 22.25 tons per year, based upon 12 month.

SO₂ emissions shall not exceed 35 tons per year, based upon 12 month.

Applicable Compliance Method:

For the NO_x limitation, the emission limitation was based on compliance with the lb/mmBtu limitations in f)(1)b. and f)(1)c., the fuel usage listed in d)(3), and the maximum rated heat input of this emissions unit.

For the SO₂ limitation, the emission limitation was based on compliance with the lb/mmBtu, SO₂ limitation in b)(1)i., the fuel usage listed in d)(3), and the maximum rated heat input of this emissions unit.

e. Emission Limitation:

0.040 lb/mmBtu of CO emissions while burning natural gas.

Applicable Compliance Method:

The short-term emission limitation for CO was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be determined by converting the 40 lbs/10⁶ scf emission factor into lbs of CO/mmBtu by dividing by 1000 Btu/scf.

f. Emission Limitation:

0.040 lb/mmBtu of CO emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be determined by converting the 5.6 lbs of CO/10³ gallon of No. 2 fuel oil emission factor into lbs of CO/mmBtu by dividing by 140 mmBtu/10³ gallons of No. 2 fuel oil.

g. Emission Limitation:

CO emissions shall not exceed 16.9 tons per year based upon a rolling, 12-month summation.

Applicable Compliance Method:

The emissions limit was based on compliance with the lb/mmBtu limitations in f)(1)e. and f)(1)f., the fuel usage listed in d)(3), and the maximum rated heat input of this emissions unit.

h. Emission Limitation:

0.008 lb/mmBtu of PE/PM10 emissions while burning natural gas.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 7.6 lbs of Total PE/10⁶ scf emission factor into lb of PE/PM10/mmBtu by dividing by 1,000 Btu/scf.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

i. Emission Limitation:

0.014 lb/mmBtu of PE/PM10 emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 2 lbs of PE/10³ gallon of No. 2 fuel oil emission factor into lbs of PE/mmBtu by dividing by 140 mmBtu/10³ gallons of No. 2 fuel oil.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

j. Emission Limitation:

PE/PM10 emissions shall not exceed 3.8 tons per year.

Applicable Compliance Method:

The emission limit was based on compliance with the lb/mmBtu limitations in f)(1)h. and f)(1)i., the fuel usage listed in d)(3), and the maximum rated heat input of this emissions unit.

k. Emission Limitation:

0.001 lb/mmBtu SO₂ emissions while burning natural gas.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition Section 1.4-6, Table 1.4-2 (9/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 0.6 lb/10⁶ scf emission factor into lbs of SO₂/mmBtu by dividing by 1000 Btu/scf.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior written approval from Ohio EPA.

l. Emission Limitation:

0.051 lb/mmBtu of SO₂ emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98). Compliance with the lb/mmBtu emission limitation shall be based upon the record keeping in d)(1) and d)(3).

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 6.

m. Emission Limitation:

SO₂ emissions shall not exceed 3.7 tons per year.

SO₂ emissions shall not exceed 35 tons per year.

Applicable Compliance Method:

For the 3.7 tons per year of SO₂ limitation, the emission limit was based on compliance with the lb/mmBtu limitations in f)(1)k. and f)(1)l., the fuel usage listed in d)(3), and the maximum rated heat input of this emissions unit.

For the 35 tons per year of SO₂ limitation, the emission limitation was based on compliance with the lb/mmBtu, SO₂ limitation in b)(1)i., the fuel usage listed in d)(3), and the maximum rated heat input of this emissions unit.

n. Emission Limitation(s):

0.01 lb/mmBtu of VOC emissions while burning natural gas.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 11 lbs VOC/10⁶ scf emission factor into lb VOC by dividing by 1,000 Btu/scf.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 25.

o. Emission Limitation(s):

0.01 lb/mmBtu of VOC emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be determined by converting the 1.4 lbs VOC/10³ gal emission factor into lbs VOC/mmBtu by dividing by 140 mmBtu/10³ gal.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 25.

p. Emission Limitation:

VOC emissions shall not exceed 4.65 tons per year.

Applicable Compliance Method:

The emission limit was based on compliance with the lb/mmBtu limitations in f)(1)n. and f)(1)o., the fuel usage listed in d)(3), and the maximum rated heat input of this emissions unit.

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

a. The emission testing shall be conducted within 3 months after start-up.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO_x and CO, while burning natural gas and No. 2 fuel oil in the appropriate averaging period(s)",

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

Method 7 and Method 10 from 40 CFR, Part 60, Appendix A.

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

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

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

submission of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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 permittees to apply for and obtain a new or modified permit to install (PTI) 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 PTI.