



State of Ohio Environmental Protection Agency

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

Street Address:

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

Mailing Address:
Lazarus Gov.
Center

Application No: 01-08156

DATE: 08/08/00

Darby Electric Generating Station
Frank Brayton
Post Office Box 555
Dayton, OH 45401

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

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

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

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

Very truly yours,

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

CC: USEPA

CDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 01-08156

Application Number: 01-08156
APS Premise Number: 0165000132
Permit Fee: **\$2350**
Name of Facility: Darby Electric Generating Station
Person to Contact: Frank Brayton
Address: Post Office Box 555
Dayton, OH 45401

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

**Adkins Rd
Darby, Ohio**

Description of proposed emissions unit(s):

Six GE frame 7EA simple cycle combustion turbines and a fuel oil storage tank.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS**A. State and Federally Enforceable Permit To Install General Terms and Conditions****1. Monitoring and Related Recordkeeping and Reporting Requirements**

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

Darby Electric Generating Station
PTI Application: 01-08156
Issued: August 8, 2000

Facility ID: 0165000132

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

2. Scheduled Maintenance/Malfunction Reporting

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

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

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

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

7. Fees

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

8. Federal and State Enforceability

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

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally

Darby Electric Generating Station

Facility ID: 0165000132

PTI Application: 01-08156

Issued: August 8, 2000

applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete

Darby Electric Generating Station

Facility ID: 0165000132

PTI Application: 01-08156

Issued: August 8, 2000

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

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

Darby Electric Generating Station

Facility ID: 0165000132

PTI Application: 01-08156

Issued: August 8, 2000

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

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

3. Permit Transfers

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

4. Air Pollution Nuisance

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

5. Termination of Permit To Install

Darby Electric Generating Station
PTI Application: 01-08156
Issued: August 8, 2000

Facility ID: 0165000132

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

6. Construction of New Sources(s)

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

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

7. Public Disclosure

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

8. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

9. Best Available Technology

Darby Electric Generating Station
PTI Application: 01-08156
Issued: August 8, 2000

Facility ID: 0165000132

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

10. Construction Compliance Certification

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

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

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

C. Permit To Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Carbon Monoxide	199.4
Nitrogen Oxide	245.0
Organic Compound	30.43
Volatile Organic Compound	6.09
Particulate Matter	7.9
Sulfur Dioxide	11.7

Darby Electric Generating Station
PTI Application: 01-08156
Issued: August 8, 2000

Facility ID: 0165000132

Darby

PTI A

Emissions Unit ID: F001

Issued: August 8, 2000

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. 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.

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

None.

Issued: August 8, 2000

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - unpaved roadways: access roads for oil tankers	OAC rule 3745-17-08	None, refer to section A.I.2.a of the terms and conditions of this permit.
	OAC rule 3745-17-07(B)	None, refer to section A.I.2.b of the terms and conditions of this permit.
	OAC rule 3745-31-05(A)(3)	Posting of speed limit signs stating a speed limit of no more than 15 mile per hour. No visible particulate emissions except for 3 minutes during any 60-minute period.

2. Additional Terms and Conditions

- 2.a This emissions unit is not located within the areas identified in "Appendix A" of OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), OAC rule 3745-17-08 does not apply to this fugitive dust source.
- 2.b Because OAC rule 3745-17-08 is not applicable, this emissions unit is exempt from the visible particulate emissions (PE) limitation specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(d).

Darby

PTI A

Emissions Unit ID: F001

Issued: August 8, 2000

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

Compliance with the emissions limitation for the unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

However, this testing shall be conducted only when the Ohio EPA requests testing because the Ohio EPA has reason to believe that non-complying visible emissions are occurring.

VI. Miscellaneous Requirements

None.

Issued: August 8, 2000

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - unpaved roadways: access roads for oil tankers	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P001 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT1 - Combustion Turbine No. 1	OAC rule 3745-31-05(D)
	40 CFR Part 75
	OAC rule 3745-31-05(A)(3)

Darby

PTI A

Issued: August 8, 2000

Emissions Unit ID: P001

OAC rule 3745-17-07(A)
 OAC rule 3745-17-11(B)(4)
 OAC rule 3745-18-06(F)
 40 CFR Part 60, Subpart GG
 OAC rule 3745-21-08(B)
 OAC rule 3745-23-06(B)

Applicable Emissions Limitations/Control Measures	
245 TPY NOx as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.	245 TPY NOx combined from P001, P002, P003, P004, P005, and P006.
199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.	CO emissions shall not exceed 131.0 lbs/hour when firing natural gas.
11.7 TPY SO2 as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.	CO emissions shall not exceed 80.0 lbs/hour when firing number two fuel oil.
6.09 TPY VOC*as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.	0.06 lb SO2/MMBtu actual heat input
See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.	The permittee shall combust oil that contains equal to or less than 0.05 percent by weight sulfur.
NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs. NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs.	2.0 lb/hour SO2 when firing natural gas.
	61.0 lbs/hour SO2 when firing number two fuel oil.
	4.0 lbs/hour VOC*, when firing natural gas.
	5.5 lbs/hour VOC*, when firing number two fuel oil.
	20.0 lbs/hour OC, when firing natural gas.
	11.0 lbs/hour OC, when firing number two fuel oil.
	30.43 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.
	5.0 lbs/hour particulate emissions when firing natural gas.
	10.0 lbs/hour particulate emissions when firing number 2 fuel oil.

Darby**PTI A**

Emissions Unit ID: P001

Issued: August 8, 2000

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

0.0258 lb particulate emissions /MMBtu of actual heat input.

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).

* the permittee has submitted emissions data that supports for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.

2. Additional Terms and Conditions

Emissions Unit ID: P001

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 2.b** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60 Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Darby**PTI A****Issued: August 8, 2000**

Emissions Unit ID: P001

Month	NOx emission rate (TPY)	Cumulative Summation of the
1	82	
1 - 2	163	
1 - 3	245	
1 - 4	245	
1 - 5	245	
1 - 6	245	
1 - 7	245	
1 - 8	245	
1 - 9	245	
1 - 10	245	
1 - 11	245	
1 - 12	245	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	CO emission rate (TPY)	Cumulative Summation of the
1	66	
1 - 2	132	
1 - 3	199.4	
1 - 4	199.4	
1 - 5	199.4	

**Darby
PTI A**

Emissions Unit ID: P001

Issued: August 8, 2000

1 - 6	199.4
1 - 7	199.4
1 - 8	199.4
1 - 9	199.4
1 - 10	199.4
1 - 11	199.4
1 - 12	199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO₂ emission rates specified in the following table:

Month	SO ₂ emission rate (TPY)	Cumulative Summation of the
1	2.34	
1 - 2	4.68	
1 - 3	7.02	
1 - 4	9.36	
1 - 5	11.7	
1 - 6	11.7	
1 - 7	11.7	
1 - 8	11.7	
1 - 9	11.7	
1 - 10	11.7	
1 - 11	11.7	
1 - 12	11.7	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of

22

Darby

PTI A

Emissions Unit ID: P001

Issued: August 8, 2000

emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	VOC emission rate (TPY)	Cumulative Summation of the
1	2.03	
1 - 2	4.06	
1 - 3	6.09	
1 - 4	6.09	
1 - 5	6.09	
1 - 6	6.09	
1 - 7	6.09	
1 - 8	6.09	
1 - 9	6.09	
1 - 10	6.09	
1 - 11	6.09	
1 - 12	6.09	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 2,542** while burning natural gas and 300** while burning fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Month	Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**	Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	2,542	300
1 - 4	2,542	300

Darby Electric Generating Station

PTI Application: 01 00156

Issued

Facility ID: 0165000132

Emissions Unit ID: P001

1 - 5	2,542	300
1 - 6	2,542	300
1 - 7	2,542	300
1 - 8	2,542	300
1 - 9	2,542	300
1 - 10	2,542	300
1 - 11	2,542	300
1 - 12	2,542	300

** the permittee may combust 1.67 additional hours of natural gas for every hour fuel oil not combusted, up to 3,043 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006 compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative

Issued: August 8, 2000

- operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
- e. The summation of the NO_x emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - f. During the first twelve calendar months of operation following startup, the cumulative NO_x emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NO_x emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - g. The summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - i. The summation of the SO₂ emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - j. During the first twelve calendar months of operation following startup, the cumulative SO₂ emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO₂ emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - k. The summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P001

2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
 - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
 - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
 - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

3. Continuous NOx Monitoring
 - a. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6, and/or 40 CFR Part 75. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75.
 - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous

Darby**PTI A**

Emissions Unit ID: P001

Issued: August 8, 2000

(one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

- e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

4. Continuous CO Monitoring
 - a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 and/or 40 CFR Part 75.
 - c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.
5. When the emissions unit is combusting natural gas or number two fuel oil and the nitrogen oxides and/or carbon monoxide continuous monitoring system(s) is not operational, the permittee shall provide missing nitrogen oxide and/or carbon monoxide data pursuant to the provisions listed in 40 CFR Part 75.
6. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x, CO, SO₂, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.
 - c. Beginning after the first twelve calendar months of operation following startup of these emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month operating hours limitations and, for the first 12 calendar months of operation following start up emissions units of P001, P002, P003, P004, P005, and P006, all exceedances of the maximum allowable cumulative operating hours levels.

These reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. The total quantity of oil received in each shipment (gallons).
 - b. The weighted* average sulfur content (percent by weight) for the oil received during each calendar month.

- c. The weighted* average heat content (Btu/gallon) of the oil received during each calendar month.
- d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

* In proportion to the quantity of oil received in each shipment during each calendar month.

4. Continuous NO_x Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when burning natural gas and 269. lbs/hour and 42 ppmvd (at full load) at 15% oxygen when burning number two fuel oil). These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. Continuous CO Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within

Issued: August 8, 2000

30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limits specified in the terms and conditions of this permit (73.5 lbs/hour when burning natural gas, and 33.4 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
6. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
- a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P001

P.O. Box 163669
Columbus, Ohio 43216-3669

and

Ohio EPA Central District Office
3232 Alum Creek Drive
Columbus, OH 43207

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline 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.
8. The permittee shall submit annual reports which specify the total particulate, SO₂, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

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

- a. Emission Limitation -

245 TPY NO_x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous eleven months to determine the rolling, 12-month summation of NO_x emissions.

- b. Emission Limitation -

199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

Issued: August 8, 2000

The monthly CO emissions shall be added to the total CO emissions from the previous eleven months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input while burning of natural gas (MMBtu/month) in emissions units P001, P002, P003, P004, P005, and P006 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) times the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units P001, P002, P003, P004, P005, and P006 (MMBtu/hr) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

6.09 TPY VOC*** as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P001

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the VOC emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The VOC*** emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- ii. The VOC*** emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- iii. The monthly VOC*** emissions shall be added to the total VOC emissions from the previous eleven months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the stack test conducted in accordance with term A.V.2.

e. Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent by weight sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

f. Emission Limitation -

0.0258 lb particulate emissions/MMBtu actual heat input

Applicable Compliance Method -

Compliance shall be demonstrated by the manufacturer's guaranteed emissions data.

g. Emission Limitation -

NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen, when firing natural gas, based on a one-hour average.

35

Darby

PTI A

Issued: August 8, 2000

Emissions Unit ID: P001

NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen, when firing number two fuel oil, based on a one-hour average.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

Issued: August 8, 2000

h. Emission Limitation -

131.0 lbs CO/hour, when firing natural gas
80.0 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitation shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

i. Emission Limitation -

0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

j. Emission Limitation -

2.0 lb/hour SO₂, when firing natural gas.
61.0 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/MMBtu by the maximum heat input capacity of this emissions unit.

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P001

k. Emission Limitation -

4.0 lbs/hour VOC***, when firing natural gas.
5.5 lbs/hour VOC***, when firing number two fuel oil.

Applicable Compliance Method -

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

l. Emission Limitation -

20.0 lbs/hour OC, when firing natural gas.
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in A.III.1. and by manufacturer's guaranteed emissions data.

m. Emission Limitation -

30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

n. Emission Limitation -

5.0 lbs/hour particulate emissions, when firing natural gas.
10.0 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance shall be demonstrated by manufacturer's guaranteed emissions data.

o. Emission Limitation -

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

38

Darby

PTI A

Issued: August 8, 2000

Emissions Unit ID: P001

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

Issued: August 8, 2000

- p. Emission Limitation -
- 10% opacity visible emissions, as a 6-minute average
- Applicable Compliance Method -
- Compliance shall be determined through visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.
2. Emission testing requirements: 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 90 days following startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the VOC emission*** limitations.
- ***the permittee has requested that if the average emissions rate (lbs/hour) derived from the stack test conducted in accordance with this term is less than the permit VOC allowable listed in term A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
- for VOC, Method 18 or 25 of 40 CFR Part 60, Appendix A.
- Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. 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

**Darby
PTI A**

Emissions Unit ID: P001

Issued: August 8, 2000

in the Ohio EPA Central District Office's refusal to accept the results of the emission test(s).

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

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

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT1 - Combustion Turbine No. 1	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

42

Darby

PTI A

Issued: August 8, 2000

VI. Miscellaneous Requirements

Emissions Unit ID: P001

None.

Darby

PTI A

Emissions Unit ID: P002

Issued: August 8, 2000

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-31-05(A)(3)
P002 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT2 - Combustion Turbine No. 2.	OAC rule 3745-31-05(D)	
	40 CFR Part 75	

	<u>Applicable Emissions Limitations/Control Measures</u>
<p>OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)</p>	<p>245 TPY NOx as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>11.7 TPY SO2 as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>6.09 TPY VOC*as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.</p> <p>NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs. NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs.</p> <p>245 TPY NOx combined from P001, P002, P003, P004, P005, and P006.</p>

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P002

CO emissions shall not exceed 131.0 lbs/hour when firing natural gas.	emissions when firing number 2 fuel oil.
CO emissions shall not exceed 80.0 lbs/hour when firing number two fuel oil.	7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.
0.06 lb SO2/MMBtu actual heat input	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.
The permittee shall combust oil that contains equal to or less than 0.05 percent by weight sulfur.	0.0258 lb particulate emissions /MMBtu of actual heat input.
2.0 lb/hour SO2 when firing natural gas.	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).
61.0 lbs/hour SO2 when firing number two fuel oil.	* the permittee has submitted emissions data that supports for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.
4.0 lbs/hour VOC*, when firing natural gas.	
5.5 lbs/hour VOC*, when firing number two fuel oil.	
20.0 lbs/hour OC, when firing natural gas.	
11.0 lbs/hour OC, when firing number two fuel oil.	
30.43 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
5.0 lbs/hour particulate emissions when firing natural gas.	
10.0 lbs/hour particulate	

Issued: August 8, 2000

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 2.b** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60 Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

II. Operational Restrictions

- 1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Cumulative
Summation of
the

**Darby
PTI A**

Emissions Unit ID: P002

Issued: August 8, 2000

Month	NOx emission rate (TPY)
1	82
1 - 2	163
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	CO emission rate (TPY)	Cumulative Summation of the
1	66	
1 - 2	132	
1 - 3	199.4	
1 - 4	199.4	
1 - 5	199.4	
1 - 6	199.4	
1 - 7	199.4	
1 - 8	199.4	
1 - 9	199.4	
1 - 10	199.4	
1 - 11	199.4	

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P002

1 - 12 199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	SO2 emission rate (TPY)	Cumulative Summation of the
1	2.34	
1 - 2	4.68	
1 - 3	7.02	
1 - 4	9.36	
1 - 5	11.7	
1 - 6	11.7	
1 - 7	11.7	
1 - 8	11.7	
1 - 9	11.7	
1 - 10	11.7	
1 - 11	11.7	
1 - 12	11.7	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	VOC emission rate (TPY)	Cumulative Summation of the
-------	-------------------------	-----------------------------

Darby**PTI A**

Emissions Unit ID: P002

Issued: August 8, 2000

1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 2,542** while burning natural gas and 300** while burning fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Darby**PTI A****Issued: August 8, 2000**

Emissions Unit ID: P002

Month	Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**	Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	2,542	300
1 - 4	2,542	300
1 - 5	2,542	300
1 - 6	2,542	300
1 - 7	2,542	300
1 - 8	2,542	300
1 - 9	2,542	300
1 - 10	2,542	300
1 - 11	2,542	300
1 - 12	2,542	300

** the permittee may combust 1.67 additional hours of natural gas for every hour fuel oil not combusted, up to 3,043 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
 - e. The summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - g. The summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - i. The summation of the SO2 emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO2 emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.

Issued: August 8, 2000

- k. The summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
 - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
 - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
 - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
 3. Continuous NO_x Monitoring
 - a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6, and/or 40 CFR Part 75. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P002

completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
- d. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, emissions of NOx in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
- e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

4. Continuous CO Monitoring

- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 and/or 40 CFR Part 75.

Emissions Unit ID: P002

- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.
5. When the emissions unit is combusting natural gas or number two fuel oil and the nitrogen oxides continuous monitoring system is not operational, the permittee shall provide missing nitrogen oxide data pursuant to the provisions listed in 40 CFR Part 75.
 6. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x, CO, SO₂, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.

Issued: August 8, 2000

- c. Beginning after the first twelve calendar months of operation following startup of these emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month operating hours limitations and, for the first 12 calendar months of operation following start up emissions units of P001, P002, P003, P004, P005, and P006, all exceedances of the maximum allowable cumulative operating hours levels.

These reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
- a. The total quantity of oil received in each shipment (gallons).
 - b. The weighted* average sulfur content (percent by weight) for the oil received during each calendar month.
 - c. The weighted* average heat content (Btu/gallon) of the oil received during each calendar month.
 - d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

* In proportion to the quantity of oil received in each shipment during each calendar month.

4. Continuous NO_x Emissions Monitoring
- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when burning natural gas and 269. lbs/hour and 42 ppmvd (at full load) at 15% oxygen when burning number two fuel oil). These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

Emissions Unit ID: P002

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
5. Continuous CO Emissions Monitoring
 - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limits specified in the terms and conditions of this permit (73.5 lbs/hour when burning natural gas, and 33.4 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the

**Darby
PTI A**

Emissions Unit ID: P002

Issued: August 8, 2000

emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Ohio EPA Central District Office
3232 Alum Creek Drive
Columbus, OH 43207

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline 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.
8. The permittee shall submit annual reports which specify the total particulate, SO₂, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

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

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P002

a. Emission Limitation -

245 TPY NO_x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous eleven months to determine the rolling, 12-month summation of NO_x emissions.

b. Emission Limitation -

199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous eleven months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input while burning of natural gas (MMBtu/month) in emissions units P001, P002, P003, P004, P005, and P006 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for

the month in emissions units P001, P002, P003, P004, P005, and P006 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) times the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units P001, P002, P003, P004, P005, and P006 (MMBtu/hr) and then dividing by 2,000 lbs/ton.

- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

6.09 TPY VOC*** as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the VOC emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The VOC*** emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- ii. The VOC*** emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- iii. The monthly VOC*** emissions shall be added to the total VOC emissions from the previous eleven months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the stack test conducted in accordance with term A.V.2.

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P002

- e. Emission Limitation -
- Sulfur content of oil shall be equal to or less than 0.05 percent by weight sulfur.
- Applicable Compliance Method -
- Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.
- f. Emission Limitation -
- 0.0258 lb particulate emissions/MMBtu actual heat input
- Applicable Compliance Method -
- Compliance shall be demonstrated by the manufacturer's guaranteed emissions data.
- g. Emission Limitation -
- NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen, when firing natural gas, based on a one-hour average.
- NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen, when firing number two fuel oil, based on a one-hour average.
- Applicable Compliance Method -
- Compliance with the NOx emission and concentration limitations shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.
- h. Emission Limitation -
- 131.0 lbs CO/hour, when firing natural gas
80.0 lbs CO/hour, when firing number two fuel oil
- Applicable Compliance Method -
- Compliance with the CO emission limitation shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.
- i. Emission Limitation -
- 0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

j. Emission Limitation -

2.0 lb/hour SO₂, when firing natural gas.
61.0 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/MMBtu by the maximum heat input capacity of this emissions unit.

k. Emission Limitation -

4.0 lbs/hour VOC^{***}, when firing natural gas.
5.5 lbs/hour VOC^{***}, when firing number two fuel oil.

Applicable Compliance Method -

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

l. Emission Limitation -

20.0 lbs/hour OC, when firing natural gas.

Emissions Unit ID: P002

11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in A.III.1. and by manufacturer's guaranteed emissions data.

m. Emission Limitation -

30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

n. Emission Limitation -

5.0 lbs/hour particulate emissions, when firing natural gas.
10.0 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance shall be demonstrated by manufacturer's guaranteed emissions data.

o. Emission Limitation -

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

Issued: August 8, 2000

p. Emission Limitation -

10% opacity visible emissions, as a 6-minute average

Applicable Compliance Method -

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

2. Emission testing requirements: 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 90 days following startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the VOC emission*** limitations.

***the permittee has requested that if the average emissions rate (lbs/hour) derived from the stack test conducted in accordance with this term is less than the permit VOC allowable listed in term A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

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

for VOC, Method 18 or 25 of 40 CFR Part 60, Appendix A.

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. 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

Darby

PTI A

Emissions Unit ID: P002

Issued: August 8, 2000

in the Ohio EPA Central District Office's refusal to accept the results of the emission test(s).

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

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

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT2 - Combustion Turbine No. 2.	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

66

Darby

PTI A

Issued: August 8, 2000

None.

Emissions Unit ID: P002

Darby

PTI A

Emissions Unit ID: P003

Issued: August 8, 2000

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P003 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT2 - Combustion Turbine No. 3.	OAC rule 3745-31-05(D)
	40 CFR Part 75
	OAC rule 3745-31-05(A)(3)

Darby

PTI A

Issued: August 8, 2000

Emissions Unit ID: P003

	<u>Applicable Emissions Limitations/Control Measures</u>
OAC rule 3745-17-07(A)	
OAC rule 3745-17-11(B)(4)	
OAC rule 3745-18-06(F)	245 TPY NO _x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.
40 CFR Part 60, Subpart GG	
OAC rule 3745-21-08(B)	
OAC rule 3745-23-06(B)	199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.
	11.7 TPY SO ₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.
	6.09 TPY VOC*as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.
	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	NO _x emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs. NO _x emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs.
	245 TPY NO _x combined from P001, P002, P003, P004, P005, and P006.

Darby

PTI A

Issued: August 8, 2000

Emissions Unit ID: P003

CO emissions shall not exceed 131.0 lbs/hour when firing natural gas.	emissions when firing natural gas. 10.0 lbs/hour particulate emissions when firing number 2 fuel oil.
CO emissions shall not exceed 80.0 lbs/hour when firing number two fuel oil.	7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.
0.06 lb SO ₂ /MMBtu actual heat input	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.
The permittee shall combust oil that contains equal to or less than 0.05 percent by weight sulfur.	0.0258 lb particulate emissions /MMBtu of actual heat input.
2.0 lb/hour SO ₂ when firing natural gas.	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).
61.0 lbs/hour SO ₂ when firing number two fuel oil.	
4.0 lbs/hour VOC*, when firing natural gas.	* the permittee has submitted emissions data that supports for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.
5.5 lbs/hour VOC*, when firing number two fuel oil.	
20.0 lbs/hour OC, when firing natural gas.	
11.0 lbs/hour OC, when firing number two fuel oil.	
30.43 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
5.0 lbs/hour particulate	

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 2.b** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60 Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Month	NOx emission rate (TPY)	Cumulative Summation of the
1	82	
1 - 2	163	

Darby**PTI A**

Emissions Unit ID: P003

Issued: August 8, 2000

1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	CO emission rate (TPY)	Cumulative Summation of the
1	66	
1 - 2	132	
1 - 3	199.4	
1 - 4	199.4	
1 - 5	199.4	
1 - 6	199.4	
1 - 7	199.4	
1 - 8	199.4	
1 - 9	199.4	
1 - 10	199.4	
1 - 11	199.4	
1 - 12	199.4	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon

**Darby
PTI A**

Emissions Unit ID: P003

Issued: August 8, 2000

a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO₂ emission rates specified in the following table:

Month	SO ₂ emission rate (TPY)	Cumulative Summation of the
1	2.34	
1 - 2	4.68	
1 - 3	7.02	
1 - 4	9.36	
1 - 5	11.7	
1 - 6	11.7	
1 - 7	11.7	
1 - 8	11.7	
1 - 9	11.7	
1 - 10	11.7	
1 - 11	11.7	
1 - 12	11.7	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	VOC emission rate (TPY)	Cumulative Summation of the

Darby Electric Generating Station

PTI Application: 01-00156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P003

1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 2,542** while burning natural gas and 300** while burning fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

**Darby
PTI A**

Issued: August 8, 2000

Emissions Unit ID: P003

Month	Maximum Allowable Cumulative Operating Hours While	
	Burning Natural Gas**	Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	2,542	300
1 - 4	2,542	300
1 - 5	2,542	300
1 - 6	2,542	300
1 - 7	2,542	300
1 - 8	2,542	300
1 - 9	2,542	300
1 - 10	2,542	300
1 - 11	2,542	300
1 - 12	2,542	300

** the permittee may combust 1.67 additional hours of natural gas for every hour fuel oil not combusted, up to 3,043 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
 - e. The summation of the NO_x emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - f. During the first twelve calendar months of operation following startup, the cumulative NO_x emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NO_x emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - g. The summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - i. The summation of the SO₂ emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.

Darby Electric Generating Station

PTI Application: 01-00156

Issued

Facility ID: 0165000132

Emissions Unit ID: P003

- j. During the first twelve calendar months of operation following startup, the cumulative SO₂ emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO₂ emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - k. The summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
 - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
 - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
 - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
 3. Continuous NO_x Monitoring
 - a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6, and/or 40 CFR Part 75. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification

Issued: August 8, 2000

tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is

Emissions Unit ID: P003

completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.
5. When the emissions unit is combusting natural gas or number two fuel oil and the nitrogen oxides continuous monitoring system is not operational, the permittee shall provide missing nitrogen oxide data pursuant to the provisions listed in 40 CFR Part 75.
 6. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units P001, P002,

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P003

P003, P004, P005, and P006 combined.

- b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x, CO, SO₂, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.
- c. Beginning after the first twelve calendar months of operation following startup of these emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month operating hours limitations and, for the first 12 calendar months of operation following start up emissions units of P001, P002, P003, P004, P005, and P006, all exceedances of the maximum allowable cumulative operating hours levels.

These reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
- The total quantity of oil received in each shipment (gallons).
 - The weighted* average sulfur content (percent by weight) for the oil received during each calendar month.
 - The weighted* average heat content (Btu/gallon) of the oil received during each calendar month.
 - The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

* In proportion to the quantity of oil received in each shipment during each calendar month.

4. Continuous NO_x Emissions Monitoring
- Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when burning natural gas and 269 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when burning number two fuel oil).

Issued: August 8, 2000

These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. Continuous CO Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limits specified in the terms and conditions of this permit (73.5 lbs/hour when burning natural gas, and 33.4 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P003

report.

- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
6. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

**Darby
PTI A**

Emissions Unit ID: P003

Issued: August 8, 2000

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Ohio EPA Central District Office
3232 Alum Creek Drive
Columbus, OH 43207

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline 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.
8. The permittee shall submit annual reports which specify the total particulate, SO₂, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

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

245 TPY NO_x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous eleven months to determine the rolling, 12-month summation of NO_x emissions.
 - b. Emission Limitation -

Darby Electric Generating Station

PTI Application: 01-00156

Issued

Facility ID: 0165000132

Emissions Unit ID: P003

199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous eleven months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input while burning of natural gas (MMBtu/month) in emissions units P001, P002, P003, P004, P005, and P006 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) times the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units P001, P002, P003, P004, P005, and P006 (MMBtu/hr) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

6.09 TPY VOC*** as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the VOC emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The VOC*** emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- ii. The VOC*** emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- iii. The monthly VOC*** emissions shall be added to the total VOC emissions from the previous eleven months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the stack test conducted in accordance with term A.V.2.

e. Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent by weight sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

f. Emission Limitation -

0.0258 lb particulate emissions/MMBtu actual heat input

Darby Electric Generating Station

PTI Application: 01-00156

Issued

Facility ID: 0165000132

Emissions Unit ID: P003

Applicable Compliance Method -

Compliance shall be demonstrated by the manufacturer's guaranteed emissions data.

g. Emission Limitation -

NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen, when firing natural gas, based on a one-hour average.

NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen, when firing number two fuel oil, based on a one-hour average.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

h. Emission Limitation -

131.0 lbs CO/hour, when firing natural gas
80.0 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitation shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

i. Emission Limitation -

0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1

(10/96).

j. Emission Limitation -

2.0 lb/hour SO₂, when firing natural gas.
61.0 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/MMBtu by the maximum heat input capacity of this emissions unit.

k. Emission Limitation -

4.0 lbs/hour VOC***, when firing natural gas.
5.5 lbs/hour VOC***, when firing number two fuel oil.

Applicable Compliance Method -

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

l. Emission Limitation -

20.0 lbs/hour OC, when firing natural gas.
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in A.III.1. and by manufacturer's guaranteed emissions data.

m. Emission Limitation -

30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

n. Emission Limitation -

5.0 lbs/hour particulate emissions, when firing natural gas.
10.0 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance shall be demonstrated by manufacturer's guaranteed emissions data.

o. Emission Limitation -

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

p. Emission Limitation -

10% opacity visible emissions, as a 6-minute average

Applicable Compliance Method -

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

2. Emission testing requirements: 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 90 days following startup of the emissions unit.

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P003

- b. The emission testing shall be conducted to demonstrate compliance with the VOC emission*** limitations.

***the permittee has requested that if the average emissions rate (lbs/hour) derived from the stack test conducted in accordance with this term is less than the permit VOC allowable listed in term A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

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

for VOC, Method 18 or 25 of 40 CFR Part 60, Appendix A.

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. 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 Central District Office's refusal to accept the results of the emission test(s).

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

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

VI. Miscellaneous Requirements

None.

Darby

PTI A

Emissions Unit ID: P003

Issued: August 8, 2000

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P003 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NO _x combustor; CT2 - Combustion Turbine No. 3.	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

	<p style="text-align: right;">Emissions Unit ID: P004</p> <p style="text-align: center;"><u>Applicable Emissions Limitations/Control Measures</u></p>
<p>OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)</p>	<p>245 TPY NOx as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>11.7 TPY SO2 as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>6.09 TPY VOC*as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.</p> <p>NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs. NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs.</p> <p>245 TPY NOx combined from P001, P002, P003, P004, P005, and P006.</p> <p>CO emissions shall not exceed 131.0 lbs/hour when firing natural gas.</p>

**Darby
PTI A**

Emissions Unit ID: P004

Issued: August 8, 2000

CO emissions shall not exceed 80.0 lbs/hour when firing number two fuel oil.

0.06 lb SO₂/MMBtu actual heat input

The permittee shall combust oil that contains equal to or less than 0.05 percent by weight sulfur.

2.0 lb/hour SO₂ when firing natural gas.

61.0 lbs/hour SO₂ when firing number two fuel oil.

4.0 lbs/hour VOC*, when firing natural gas.

5.5 lbs/hour VOC*, when firing number two fuel oil.

20.0 lbs/hour OC, when firing natural gas.

11.0 lbs/hour OC, when firing number two fuel oil.

30.43 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

5.0 lbs/hour particulate emissions when firing natural gas.

10.0 lbs/hour particulate emissions when firing

number 2 fuel oil.

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

0.0258 lb particulate emissions /MMBtu of actual heat input.

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).

* the permittee has submitted emissions data that supports for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.

Issued: August 8, 2000

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 2.b** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60 Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

II. Operational Restrictions

- 1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Cumulative
Summation of
the

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P004

Month	NOx emission rate (TPY)
1	82
1 - 2	163
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	CO emission rate (TPY)	Cumulative Summation of the
1	66	
1 - 2	132	
1 - 3	199.4	
1 - 4	199.4	
1 - 5	199.4	
1 - 6	199.4	
1 - 7	199.4	
1 - 8	199.4	
1 - 9	199.4	
1 - 10	199.4	
1 - 11	199.4	
1 - 12	199.4	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon

**Darby
PTI A**

Emissions Unit ID: P004

Issued: August 8, 2000

a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	SO2 emission rate (TPY)	Cumulative Summation of the
1	2.34	
1 - 2	4.68	
1 - 3	7.02	
1 - 4	9.36	
1 - 5	11.7	
1 - 6	11.7	
1 - 7	11.7	
1 - 8	11.7	
1 - 9	11.7	
1 - 10	11.7	
1 - 11	11.7	
1 - 12	11.7	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	VOC emission rate (TPY)	Cumulative Summation of the
-------	-------------------------	-----------------------------------

Darby**PTI A**

Emissions Unit ID: P004

Issued: August 8, 2000

1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 2,542** while burning natural gas and 300** while burning fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P004

Month	Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**	Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	2,542	300
1 - 4	2,542	300
1 - 5	2,542	300
1 - 6	2,542	300
1 - 7	2,542	300
1 - 8	2,542	300
1 - 9	2,542	300
1 - 10	2,542	300
1 - 11	2,542	300
1 - 12	2,542	300

** the permittee may combust 1.67 additional hours of natural gas for every hour fuel oil not combusted, up to 3,043 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
- The amount of number two fuel oil burned, in gallons.

Issued: August 8, 2000

- b. The amount of natural gas burned, in cubic feet.
- c. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
- d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
- e. The summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
- f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
- i. The summation of the SO2 emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO2 emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P004

- k. The summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
 - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
 - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
 - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
 3. Continuous NOx Monitoring
 - a. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6, and/or 40 CFR Part 75. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 and/or 40 CFR Part 75.
 - c. The permittee shall operate and maintain equipment to continuously monitor and record

Emissions Unit ID: P004

CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

- d. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.
5. When the emissions unit is combusting natural gas or number two fuel oil and the nitrogen oxides continuous monitoring system is not operational, the permittee shall provide missing nitrogen oxide data pursuant to the provisions listed in 40 CFR Part 75.
 6. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x, CO, SO₂, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.

Issued: August 8, 2000

- c. Beginning after the first twelve calendar months of operation following startup of these emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month operating hours limitations and, for the first 12 calendar months of operation following start up emissions units of P001, P002, P003, P004, P005, and P006, all exceedances of the maximum allowable cumulative operating hours levels.

These reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. The total quantity of oil received in each shipment (gallons).
 - b. The weighted* average sulfur content (percent by weight) for the oil received during each calendar month.
 - c. The weighted* average heat content (Btu/gallon) of the oil received during each calendar month.
 - d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

* In proportion to the quantity of oil received in each shipment during each calendar month.

4. Continuous NO_x Emissions Monitoring
 - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when burning natural gas and 269 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when burning number two fuel oil). These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

Emissions Unit ID: P004

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
5. Continuous CO Emissions Monitoring
- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limits specified in the terms and conditions of this permit (73.5 lbs/hour when burning natural gas, and 33.4 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total

Darby Electric Generating Station**PTI Application: 01-09156****Issued****Facility ID: 0165000132**

Emissions Unit ID: P004

operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

**Darby
PTI A**

Emissions Unit ID: P004

Issued: August 8, 2000

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Ohio EPA Central District Office
3232 Alum Creek Drive
Columbus, OH 43207

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline 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.
8. The permittee shall submit annual reports which specify the total particulate, SO₂, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

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

- a. Emission Limitation -

245 TPY NO_x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous eleven months to determine the rolling, 12-month summation of NO_x emissions.

- b. Emission Limitation -

Issued: August 8, 2000

199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous eleven months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input while burning of natural gas (MMBtu/month) in emissions units P001, P002, P003, P004, P005, and P006 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) times the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units P001, P002, P003, P004, P005, and P006 (MMBtu/hr) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb

Darby Electric Generating Station

PTI Application: 01-00156

Issued

Facility ID: 0165000132

Emissions Unit ID: P004

SO₂/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

6.09 TPY VOC*** as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the VOC emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The VOC*** emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- ii. The VOC*** emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- iii. The monthly VOC*** emissions shall be added to the total VOC emissions from the previous eleven months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the stack test conducted in accordance with term A.V.2.

e. Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent by weight sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

f. Emission Limitation -

0.0258 lb particulate emissions/MMBtu actual heat input

Applicable Compliance Method -

Compliance shall be demonstrated by the manufacturer's guaranteed emissions data.

g. Emission Limitation -

NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen, when firing natural gas, based on a one-hour average.

NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen, when firing number two fuel oil, based on a one-hour average.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

h. Emission Limitation -

131.0 lbs CO/hour, when firing natural gas
80.0 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitation shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

i. Emission Limitation -

0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or

Issued: August 8, 2000

require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

j. Emission Limitation -

2.0 lb/hour SO₂, when firing natural gas.
61.0 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/MMBtu by the maximum heat input capacity of this emissions unit.

k. Emission Limitation -

4.0 lbs/hour VOC^{***}, when firing natural gas.
5.5 lbs/hour VOC^{***}, when firing number two fuel oil.

Applicable Compliance Method -

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

l. Emission Limitation -

20.0 lbs/hour OC, when firing natural gas.
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in A.III.1. and by manufacturer's guaranteed emissions data.

m. Emission Limitation -

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P004

30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

n. Emission Limitation -

5.0 lbs/hour particulate emissions, when firing natural gas.
10.0 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance shall be demonstrated by manufacturer's guaranteed emissions data.

o. Emission Limitation -

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

p. Emission Limitation -

10% opacity visible emissions, as a 6-minute average

Applicable Compliance Method -

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

2. Emission testing requirements: 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 90 days following startup of the emissions unit.

Issued: August 8, 2000

- b. The emission testing shall be conducted to demonstrate compliance with the VOC emission*** limitations.

***the permittee has requested that if the average emissions rate (lbs/hour) derived from the stack test conducted in accordance with this term is less than the permit VOC allowable listed in term A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

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

for VOC, Method 18 or 25 of 40 CFR Part 60, Appendix A.

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. 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 Central District Office's refusal to accept the results of the emission test(s).

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

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

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P004 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT4 - Combustion Turbine No. 4.	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

Darby

PTI A

Emissions Unit ID: P005

Issued: August 8, 2000

None.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-31-05(A)(3)
P005 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT5 - Combustion Turbine No. 5.	OAC rule 3745-31-05(D)	
	40 CFR Part 75	

	<u>Applicable Emissions Limitations/Control Measures</u>
<p>OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)</p>	<p>245 TPY NOx as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p>
	<p>199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p>
	<p>11.7 TPY SO2 as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p>
	<p>6.09 TPY VOC*as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p>
	<p>See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.</p>
	<p>NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs. NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs.</p>
	<p>245 TPY NOx combined from P001, P002, P003, P004, P005, and P006.</p>

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P005

CO emissions shall not exceed 131.0 lbs/hour when firing natural gas.	emissions when firing number 2 fuel oil.
CO emissions shall not exceed 80.0 lbs/hour when firing number two fuel oil.	7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.
0.06 lb SO2/MMBtu actual heat input	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.
The permittee shall combust oil that contains equal to or less than 0.05 percent by weight sulfur.	0.0258 lb particulate emissions /MMBtu of actual heat input.
2.0 lb/hour SO2 when firing natural gas.	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).
61.0 lbs/hour SO2 when firing number two fuel oil.	* the permittee has submitted emissions data that supports for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.
4.0 lbs/hour VOC*, when firing natural gas.	
5.5 lbs/hour VOC*, when firing number two fuel oil.	
20.0 lbs/hour OC, when firing natural gas.	
11.0 lbs/hour OC, when firing number two fuel oil.	
30.43 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
5.0 lbs/hour particulate emissions when firing natural gas.	
10.0 lbs/hour particulate	

Issued: August 8, 2000

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 2.b** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60 Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

II. Operational Restrictions

- 1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Cumulative
Summation of
the

**Darby
PTI A**

Emissions Unit ID: P005

Issued: August 8, 2000

Month	NOx emission rate (TPY)
1	82
1 - 2	163
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	CO emission rate (TPY)	Cumulative Summation of the
1	66	
1 - 2	132	
1 - 3	199.4	
1 - 4	199.4	
1 - 5	199.4	
1 - 6	199.4	
1 - 7	199.4	
1 - 8	199.4	
1 - 9	199.4	
1 - 10	199.4	
1 - 11	199.4	

Darby Electric Generating Station

Facility ID: 0165000132

PTI Application: 01-09156

Issued

Emissions Unit ID: P005

1 - 12 199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	SO2 emission rate (TPY)	Cumulative Summation of the
1	2.34	
1 - 2	4.68	
1 - 3	7.02	
1 - 4	9.36	
1 - 5	11.7	
1 - 6	11.7	
1 - 7	11.7	
1 - 8	11.7	
1 - 9	11.7	
1 - 10	11.7	
1 - 11	11.7	
1 - 12	11.7	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	VOC emission rate (TPY)	Cumulative Summation of the
-------	-------------------------	-----------------------------

Darby**PTI A**

Emissions Unit ID: P005

Issued: August 8, 2000

1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 2,542** while burning natural gas and 300** while burning fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Darby**PTI A****Issued: August 8, 2000**

Emissions Unit ID: P005

Month	Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**	Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	2,542	300
1 - 4	2,542	300
1 - 5	2,542	300
1 - 6	2,542	300
1 - 7	2,542	300
1 - 8	2,542	300
1 - 9	2,542	300
1 - 10	2,542	300
1 - 11	2,542	300
1 - 12	2,542	300

** the permittee may combust 1.67 additional hours of natural gas for every hour fuel oil not combusted, up to 3,043 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
 - e. The summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - g. The summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - i. The summation of the SO2 emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO2 emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.

Issued: August 8, 2000

- k. The summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
 - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
 - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
 - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
 3. Continuous NO_x Monitoring
 - a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6, and/or 40 CFR Part 75. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District

Emissions Unit ID: P005

Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
- d. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
- e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

4. Continuous CO Monitoring

- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 and/or 40 CFR Part 75.
- c. The permittee shall operate and maintain equipment to continuously monitor and record

Emissions Unit ID: P005

CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

- d. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.
5. When the emissions unit is combusting natural gas or number two fuel oil and the nitrogen oxides continuous monitoring system is not operational, the permittee shall provide missing nitrogen oxide data pursuant to the provisions listed in 40 CFR Part 75.
 6. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x, CO, SO₂, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.

Issued: August 8, 2000

- c. Beginning after the first twelve calendar months of operation following startup of these emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month operating hours limitations and, for the first 12 calendar months of operation following start up emissions units of P001, P002, P003, P004, P005, and P006, all exceedances of the maximum allowable cumulative operating hours levels.

These reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. The total quantity of oil received in each shipment (gallons).
 - b. The weighted* average sulfur content (percent by weight) for the oil received during each calendar month.
 - c. The weighted* average heat content (Btu/gallon) of the oil received during each calendar month.
 - d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

* In proportion to the quantity of oil received in each shipment during each calendar month.

4. Continuous NO_x Emissions Monitoring
 - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when burning natural gas and 269. lbs/hour and 42 ppmvd (at full load) at 15% oxygen when burning number two fuel oil). These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P005

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
5. Continuous CO Emissions Monitoring
- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limits specified in the terms and conditions of this permit (73.5 lbs/hour when burning natural gas, and 33.4 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total

Darby**PTI A****Issued: August 8, 2000**

Emissions Unit ID: P005

operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P005

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Ohio EPA Central District Office
3232 Alum Creek Drive
Columbus, OH 43207

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline 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.
8. The permittee shall submit annual reports which specify the total particulate, SO₂, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

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

245 TPY NO_x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous eleven months to determine the rolling, 12-month summation of NO_x emissions.
 - b. Emission Limitation -

199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous eleven months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input while burning of natural gas (MMBtu/month) in emissions units P001, P002, P003, P004, P005, and P006 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) times the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units P001, P002, P003, P004, P005, and P006 (MMBtu/hr) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

6.09 TPY VOC*** as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the VOC emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The VOC*** emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- ii. The VOC*** emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- iii. The monthly VOC*** emissions shall be added to the total VOC emissions from the previous eleven months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the stack test conducted in accordance with term A.V.2.

e. Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent by weight sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

f. Emission Limitation -

0.0258 lb particulate emissions/MMBtu actual heat input

Applicable Compliance Method -

Compliance shall be demonstrated by the manufacturer's guaranteed emissions data.

g. Emission Limitation -

NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen, when firing natural gas, based on a one-hour average.

NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen, when firing number two fuel oil, based on a one-hour average.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

h. Emission Limitation -

131.0 lbs CO/hour, when firing natural gas
80.0 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitation shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

i. Emission Limitation -

0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1

(10/96).

j. Emission Limitation -

2.0 lb/hour SO₂, when firing natural gas.
61.0 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/MMBtu by the maximum heat input capacity of this emissions unit.

k. Emission Limitation -

4.0 lbs/hour VOC***, when firing natural gas.
5.5 lbs/hour VOC***, when firing number two fuel oil.

Applicable Compliance Method -

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

l. Emission Limitation -

20.0 lbs/hour OC, when firing natural gas.
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in A.III.1. and by manufacturer's guaranteed emissions data.

m. Emission Limitation -

30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P005

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

n. Emission Limitation -

5.0 lbs/hour particulate emissions, when firing natural gas.

10.0 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance shall be demonstrated by manufacturer's guaranteed emissions data.

o. Emission Limitation -

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

p. Emission Limitation -

10% opacity visible emissions, as a 6-minute average

Applicable Compliance Method -

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

2. Emission testing requirements: 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 90 days following startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the VOC emission*** limitations.

***the permittee has requested that if the average emissions rate (lbs/hour) derived from

Darby**PTI A**

Emissions Unit ID: P005

Issued: August 8, 2000

the stack test conducted in accordance with this term is less than the permit VOC allowable listed in term A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

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

for VOC, Method 18 or 25 of 40 CFR Part 60, Appendix A.

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. 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 Central District Office's refusal to accept the results of the emission test(s).

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

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

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT5 - Combustion Turbine No. 5.	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

Darby

PTI A

Issued: August 8, 2000

None.

Emissions Unit ID: P006

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P006 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT6 - Combustion Turbine No. 6.	OAC rule 3745-31-05(D)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

	<u>Applicable Emissions Limitations/Control Measures</u>
<p>OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)</p>	<p>245 TPY NO_x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>6.09 TPY VOC*as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.</p> <p>NO_x emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs. NO_x emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs.</p> <p>245 TPY NO_x combined from P001, P002, P003, P004, P005, and P006.</p>

Darby**PTI A****Issued: August 8, 2000**

Emissions Unit ID: P006

CO emissions shall not exceed 131.0 lbs/hour when firing natural gas.	emissions when firing natural gas. 10.0 lbs/hour particulate emissions when firing number 2 fuel oil.
CO emissions shall not exceed 80.0 lbs/hour when firing number two fuel oil.	7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.
0.06 lb SO ₂ /MMBtu actual heat input	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.
The permittee shall combust oil that contains equal to or less than 0.05 percent by weight sulfur.	0.0258 lb particulate emissions /MMBtu of actual heat input.
2.0 lb/hour SO ₂ when firing natural gas.	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).
61.0 lbs/hour SO ₂ when firing number two fuel oil.	
4.0 lbs/hour VOC*, when firing natural gas.	* the permittee has submitted emissions data that supports for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.
5.5 lbs/hour VOC*, when firing number two fuel oil.	
20.0 lbs/hour OC, when firing natural gas.	
11.0 lbs/hour OC, when firing number two fuel oil.	
30.43 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
5.0 lbs/hour particulate	

Emissions Unit ID: P006

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 2.b** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60 Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

II. Operational Restrictions

- 1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Month	NOx emission rate (TPY)	Cumulative Summation of the
1	82	
1 - 2	163	

**Darby
PTI A**

Emissions Unit ID: P006

Issued: August 8, 2000

1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	CO emission rate (TPY)	Cumulative Summation of the
1	66	
1 - 2	132	
1 - 3	199.4	
1 - 4	199.4	
1 - 5	199.4	
1 - 6	199.4	
1 - 7	199.4	
1 - 8	199.4	
1 - 9	199.4	
1 - 10	199.4	
1 - 11	199.4	
1 - 12	199.4	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon

**Darby
PTI A**

Emissions Unit ID: P006

Issued: August 8, 2000

a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	SO2 emission rate (TPY)	Cumulative Summation of the
1	2.34	
1 - 2	4.68	
1 - 3	7.02	
1 - 4	9.36	
1 - 5	11.7	
1 - 6	11.7	
1 - 7	11.7	
1 - 8	11.7	
1 - 9	11.7	
1 - 10	11.7	
1 - 11	11.7	
1 - 12	11.7	

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	VOC emission rate (TPY)	Cumulative Summation of the
-------	-------------------------	-----------------------------------

Darby Electric Generating Station

PTI Application: 01-09156

Issued

Facility ID: 0165000132

Emissions Unit ID: P006

1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 2,542** while burning natural gas and 300** while burning fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Darby**PTI A****Issued: August 8, 2000**

Emissions Unit ID: P006

Month	Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**	Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	2,542	300
1 - 4	2,542	300
1 - 5	2,542	300
1 - 6	2,542	300
1 - 7	2,542	300
1 - 8	2,542	300
1 - 9	2,542	300
1 - 10	2,542	300
1 - 11	2,542	300
1 - 12	2,542	300

** the permittee may combust 1.67 additional hours of natural gas for every hour fuel oil not combusted, up to 3,043 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

- The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

- The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

Issued: August 8, 2000

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
 - e. The summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - g. The summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
 - i. The summation of the SO2 emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P006

operation following startup, The rolling, 12-month summation of the SO₂ emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.

- k. The summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/month.
 - l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units P001, P002, P003, P004, P005, and P006 combined, in tons/rolling, 12-month period.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
 - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
 - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
 - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
 3. Continuous NO_x Monitoring
 - a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6, and/or 40 CFR Part 75. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District

Issued: August 8, 2000

Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.
 - b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the Ohio EPA Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section

Emissions Unit ID: P006

3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
 - d. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.
5. When the emissions unit is combusting natural gas or number two fuel oil and the nitrogen oxides continuous monitoring system is not operational, the permittee shall provide missing nitrogen oxide data pursuant to the provisions listed in 40 CFR Part 75.
 6. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P006

emissions units, the rolling, 12-month summation of the NO_x, CO, SO₂, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.

- c. Beginning after the first twelve calendar months of operation following startup of these emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month operating hours limitations and, for the first 12 calendar months of operation following start up emissions units of P001, P002, P003, P004, P005, and P006, all exceedances of the maximum allowable cumulative operating hours levels.

These reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
- a. The total quantity of oil received in each shipment (gallons).
 - b. The weighted* average sulfur content (percent by weight) for the oil received during each calendar month.
 - c. The weighted* average heat content (Btu/gallon) of the oil received during each calendar month.
 - d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

* In proportion to the quantity of oil received in each shipment during each calendar month.

4. Continuous NO_x Emissions Monitoring
- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen when burning natural gas and 269. lbs/hour and 42 ppmvd (at full load) at 15% oxygen when burning number two fuel oil). These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).
 - b. The permittee shall submit reports within 30 days following the end of each calendar

Issued: August 8, 2000

quarter to the Ohio EPA Central District Office documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

5. Continuous CO Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limits specified in the terms and conditions of this permit (73.5 lbs/hour when burning natural gas, and 33.4 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a

Darby Electric Generating Station**PTI Application: 01 00156****Issued****Facility ID: 0165000132**

Emissions Unit ID: P006

statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

**Darby
PTI A**

Emissions Unit ID: P006

Issued: August 8, 2000

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Ohio EPA Central District Office
3232 Alum Creek Drive
Columbus, OH 43207

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline 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.
8. The permittee shall submit annual reports which specify the total particulate, SO₂, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

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

245 TPY NO_x as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous eleven months to determine the rolling, 12-month summation of NO_x emissions.
 - b. Emission Limitation -

Darby Electric Generating Station

PTI Application: 01-00156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P006

199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous eleven months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input while burning of natural gas (MMBtu/month) in emissions units P001, P002, P003, P004, P005, and P006 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) times the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units P001, P002, P003, P004, P005, and P006 (MMBtu/hr) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

6.09 TPY VOC*** as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the VOC emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The VOC*** emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- ii. The VOC*** emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 fuel oil for the month in emissions units P001, P002, P003, P004, P005, and P006 by the average emission rate (lbs VOC/hour) derived from the stack test conducted in accordance with term A.V.2. that are operating during the month and dividing by 2,000 lbs/ton.
- iii. The monthly VOC*** emissions shall be added to the total VOC emissions from the previous eleven months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the stack test conducted in accordance with term A.V.2.

e. Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent by weight sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

f. Emission Limitation -

0.0258 lb particulate emissions/MMBtu actual heat input

Applicable Compliance Method -

Compliance shall be demonstrated by the manufacturer's guaranteed emissions data.

g. Emission Limitation -

NOx emissions shall not exceed 178.5 lbs/hour and 15 ppmvd (at full load) at 15% oxygen, when firing natural gas, based on a one-hour average.

NOx emissions shall not exceed 269.0 lbs/hour and 42 ppmvd (at full load) at 15% oxygen, when firing number two fuel oil, based on a one-hour average.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

h. Emission Limitation -

131.0 lbs CO/hour, when firing natural gas
80.0 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitation shall be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

i. Emission Limitation -

0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1

(10/96).

j. Emission Limitation -

2.0 lb/hour SO₂, when firing natural gas.

61.0 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/MMBtu by the maximum heat input capacity of this emissions unit.

k. Emission Limitation -

4.0 lbs/hour VOC***, when firing natural gas.

5.5 lbs/hour VOC***, when firing number two fuel oil.

Applicable Compliance Method -

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

l. Emission Limitation -

20.0 lbs/hour OC, when firing natural gas.

11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance shall be based upon the record keeping requirements specified in A.III.1. and by manufacturer's guaranteed emissions data.

m. Emission Limitation -

30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Issued: August 8, 2000

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

n. Emission Limitation -

5.0 lbs/hour particulate emissions, when firing natural gas.
10.0 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance shall be demonstrated by manufacturer's guaranteed emissions data.

o. Emission Limitation -

7.9 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

p. Emission Limitation -

10% opacity visible emissions, as a 6-minute average

Applicable Compliance Method -

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

2. Emission testing requirements: 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 90 days following startup of the emissions unit.

Darby Electric Generating Station

PTI Application: 01-09156

Issued**Facility ID: 0165000132**

Emissions Unit ID: P006

- b. The emission testing shall be conducted to demonstrate compliance with the VOC emission*** limitations.

***the permittee has requested that if the average emissions rate (lbs/hour) derived from the stack test conducted in accordance with this term is less than the permit VOC allowable listed in term A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

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

for VOC, Method 18 or 25 of 40 CFR Part 60, Appendix A.

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. 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 Central District Office's refusal to accept the results of the emission test(s).

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

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

VI. Miscellaneous Requirements

None.

**Darby
PTI A**

Emissions Unit ID: P006

Issued: August 8, 2000

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P006 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW), controlled with a dry low NOx combustor; CT6 - Combustion Turbine No. 6.	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

**Darby
PTI A**

Emissions Unit ID: T001

Issued: August 8, 2000

None.

VI. Miscellaneous Requirements

None.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T001 - 1,400,000 gallon fuel oil storage tank with an internal floating roof and submerged filling	OAC rule 3745-31-05(A)(3)	0.01 TPY volatile organic compounds (VOC)
	OAC rule 3745-21-09(L)(1)	See Section A.I.2.
	NSPS 40 CFR Part 60 Subpart Kb	See Section A.III.2.

2. Additional Terms and Conditions

- 2.a The fixed roof storage tank shall be equipped with an internal floating roof.
- 2.b The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.
- 2.c All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

II. Operational Restrictions

Issued

Emissions Unit ID: T001

1. The tank shall be loaded by means of a submerged fill pipe, defined as any fill pipe with the discharge opening entirely submerged when the liquid level is six inches above the bottom of the tank or when loaded from the side, any fill pipe with the discharge opening entirely submerged when the liquid level is eighteen inches above the bottom of the tank, OAC rule 3745-21-01(C)(6).

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information.
 - a. The types of petroleum liquids stored in the tank.
 - b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.
2. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the source.
3. The permittee shall perform annual inspections of the gray paint finish of the storage tank and make repairs when necessary, to maintain the gray tank finish in good condition.
4. The permittee shall maintain monthly records of the No. 2 fuel oil throughput, in gallons.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is greater than 1.52 pounds per square inch absolute, and such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, the permittee shall notify the Director (the Ohio EPA Central District Office) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

1. Compliance with the emission limitations specified in A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation -

0.01 TPY VOC

Applicable Compliance Method -

Compliance shall be demonstrated based upon the record keeping requirements specified in section A.III.4 and the formulas provided in AP-42 Chapter 7, Organic Liquid Storage

161

Darby

PTI A

Emissions Unit ID: T001

Issued: August 8, 2000

Tanks, section 7.1.3.1, Total Losses from Fixed Roof Tanks (9/1997) or the "TANKS 3.1" software program.

VI. Miscellaneous Requirements

None.

**Darby
PTI A**

Emissions Unit ID: T001

Issued: August 8, 2000

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T001 - 1,400,000 gallon fuel oil storage tank with an internal floating roof and submerged filling	OAC rule 3745-31-05	None.

2. Additional Terms and Conditions

None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

163

Darby Electric Generating Station

PTI Application: 01 09156

Issued

Facility ID: 0165000132

Emissions Unit ID: T001

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156 Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cycle combustion turbines and a fuel oil storage tank. CITY/TWP Darby

SIC CODE 4911 SCC CODE 30501199 EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION Unpaved roadways associated with the Darby Electric Generating Station

DATE INSTALLED 7/2000

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

No visible particulate emissions except for 3 minutes during any 60-minute period.

Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust

Posting of speed limit signs stating a speed limit of no more than 15 mile per hour. Compliance with permitted limits and applicable rules and regulations.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NOIDENTIFY THE AIR CONTAMINANTS: N/A

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cycle

CITY/TWP Darby

Emissions Unit ID: T001

SIC CODE

4911

SCC CODE

20100101/20100201

EMISSIONS UNIT ID

P001

EMISSIONS UNIT DESCRIPTION 80 megawatt simple cycle combustion turbine firing natural gas and no. 2 fuel oil used for generating electricity for peaking purposes

DATE INSTALLED

10/2000

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			5.0 lbs/hr (gas) 10.0 lbs/hr (oil)	7.9
PM ₁₀					
Sulfur Dioxide	Attainment			2.0 lb/hr (gas) 61.0 lbs/hr (oil)	11.7
Organic Compounds	Attainment			20.0 lbs/hr (gas) 11.0 lbs/hr (oil)	30.43
Nitrogen Oxides	Attainment			178.5 lbs/hr (gas) 269.0 lbs/hr (oil)	245
Carbon Monoxide	Attainment			131.0 lbs/hr (gas) 80.0 lbs/hr (oil)	199.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY?

Subpart GG

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

BAT is use of water injection to reduce nitrogen oxides emissions to 42 ppmvd when burning number two fuel oil and use of dry low NOx combustor to reduce NOx emissions to 42 ppmvd when burning natural gas, and the 245 TPY NOx allowable.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*?

X

YES

NO

IDENTIFY THE AIR CONTAMINANTS: Formaldehyde

Modeling was performed to determine the ambient impact of the source using the Industrial Source Complex Model, Version 3, update 99155 in its short-term mode. Modeling was performed for CO and NOx

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating StationFACILITY DESCRIPTION Six GE frame 7EA simple cycleCITY/TWP Darbv

Emissions Unit ID: T001

SIC CODE

4911

SCC CODE

20100101/20100201

EMISSIONS UNIT ID

P002EMISSIONS UNIT DESCRIPTION 80 megawatt simple cycle combustion turbine firing natural gas and no. 2 fuel oil used for generating electricity for peaking purposes

DATE INSTALLED

10/2000

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			5.0 lbs/hr (gas) 10.0 lbs/hr (oil)	7.9
PM ₁₀					
Sulfur Dioxide	Attainment			2.0 lb/hr (gas) 61.0 lbs/hr (oil)	11.7
Organic Compounds	Attainment			20.0 lbs/hr (gas) 11.0 lbs/hr (oil)	30.43
Nitrogen Oxides	Attainment			178.5 lbs/hr (gas) 269.0 lbs/hr (oil)	245
Carbon Monoxide	Attainment			131.0 lbs/hr (gas) 80.0 lbs/hr (oil)	199.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY?

Subpart GG

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

BAT is use of water injection to reduce nitrogen oxides emissions to 42 ppmvd when burning number two fuel oil and use of dry low NOx combustor to reduce NOx emissions to 42 ppmvd when burning natural gas, and the 245 TPY NOx allowable.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*?

X

YES

 NOIDENTIFY THE AIR CONTAMINANTS: Formaldehyde

Modeling was performed to determine the ambient impact of the source using the Industrial Source Complex Model, Version 3, update 99155 in its short-term mode. Modeling was performed for CO and NOx.

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cycle

CITY/TWP Darby

Emissions Unit ID: T001

SIC CODE

4911

SCC CODE

20100101/201002
01

EMISSIONS UNIT ID

P003

EMISSIONS UNIT DESCRIPTION 80 megawatt simple cycle combustion turbine firing natural gas and no. 2 fuel oil used for generating electricity for peaking purposes

DATE INSTALLED

10/2000

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			5.0 lbs/hr (gas) 10.0 lbs/hr (oil)	7.9
PM ₁₀					
Sulfur Dioxide	Attainment			2.0 lb/hr (gas) 61.0 lbs/hr (oil)	11.7
Organic Compounds	Attainment			20.0 lbs/hr (gas) 11.0 lbs/hr (oil)	30.43
Nitrogen Oxides	Attainment			178.5 lbs/hr (gas) 269.0 lbs/hr (oil)	245
Carbon Monoxide	Attainment			131.0 lbs/hr (gas) 80.0 lbs/hr (oil)	199.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY?

Subpart GG

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

BAT is use of water injection to reduce nitrogen oxides emissions to 42 ppmvd when burning number two fuel oil and use of dry low NOx combustor to reduce NOx emissions to 42 ppmvd when burning natural gas, and the 245 TPY NOx allowable.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*?

X

YES

NO

IDENTIFY THE AIR CONTAMINANTS: Formaldehyde

Modeling was performed to determine the ambient impact of the source using the Industrial Source Complex

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cvcle

CITY/TWP Darbv

Emissions Unit ID: T001

Model, Version 3, update 99155 in its short-term mode. Modeling was performed for CO and NOx.

NEW SC

PTI Num

FACILITY

Emissions Unit ID: T001

FACILITY DESCRIPTION Six GE frame 7EA simple cycle combustion turbines and a fuel oil storage tank.

CITY/TWP Darby

SIC CODE	4911	SCC CODE	20100101/20100201	EMISSIONS UNIT ID	P004
----------	------	----------	-------------------	-------------------	------

EMISSIONS UNIT DESCRIPTION 80 megawatt simple cycle combustion turbine firing natural gas and no. 2 fuel oil used for generating electricity for peaking purposes

DATE INSTALLED 10/2000

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			5.0 lbs/hr (gas) 10.0 lbs/hr (oil)	7.9
PM ₁₀					
Sulfur Dioxide	Attainment			2.0 lb/hr (gas) 61.0 lbs/hr (oil)	11.7
Organic Compounds	Attainment			20.0 lbs/hr (gas) 11.0 lbs/hr (oil)	30.43
Nitrogen Oxides	Attainment			178.5 lbs/hr (gas) 269.0 lbs/hr (oil)	245
Carbon Monoxide	Attainment			131.0 lbs/hr (gas) 80.0 lbs/hr (oil)	199.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

Subpart GG

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

BAT is use of water injection to reduce nitrogen oxides emissions to 42 ppmvd when burning number two fuel oil and use of dry low NOx combustor to reduce NOx emissions to 42 ppmvd when burning natural gas, and the 245 TPY NOx allowable.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

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

TOXIC AIR CONTAMINANTS

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cvcle

CITY/TWP Darbv

Emissions Unit ID: T001

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

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: Formaldehyde

Modeling was performed to determine the ambient impact of the source using the Industrial Source Complex Model, Version 3, update 99155 in its short-term mode. Modeling was performed for CO and NOx.

NEW SC

PTI Num

FACILITY

Emissions Unit ID: T001

FACILITY DESCRIPTION Six GE frame 7EA simple cycle combustion turbines and a fuel oil storage tank.

CITY/TWP Darby

SIC CODE 4911 SCC CODE 20100101/20100201 EMISSIONS UNIT ID P005

EMISSIONS UNIT DESCRIPTION 80 megawatt simple cycle combustion turbine firing natural gas and no. 2 fuel oil used for generating electricity for peaking purposes

DATE INSTALLED 10/2000

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			5.0 lbs/hr (gas) 10.0 lbs/hr (oil)	7.9
PM ₁₀					
Sulfur Dioxide	Attainment			2.0 lb/hr (gas) 61.0 lbs/hr (oil)	11.7
Organic Compounds	Attainment			20.0 lbs/hr (gas) 11.0 lbs/hr (oil)	30.43
Nitrogen Oxides	Attainment			178.5 lbs/hr (gas) 269.0 lbs/hr (oil)	245
Carbon Monoxide	Attainment			131.0 lbs/hr (gas) 80.0 lbs/hr (oil)	199.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? **Subpart GG**

NESHAP?

PSD?

OFFSET POLICY?

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

BAT is use of water injection to reduce nitrogen oxides emissions to 42 ppmvd when burning number two fuel oil and use of dry low NOx combustor to reduce NOx emissions to 42 ppmvd when burning natural gas, and the 245 TPY NOx allowable.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*?

X

YES

NO

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cvcle

CITY/TWP Darby

Emissions Unit ID: T001

IDENTIFY THE AIR CONTAMINANTS:

Formaldehyde

Modeling was performed to determine the ambient impact of the source using the Industrial Source Complex Model, Version 3, update 99155 in its short-term mode. Modeling was performed for CO and NOx.

NEW SC

PTI Num

FACILITY

Emissions Unit ID: T001

FACILITY DESCRIPTION Six GE frame 7EA simple cycle combustion turbines and a fuel oil storage tank.

CITY/TWP Darby

SIC CODE 4911 SCC CODE 20100101/20100201 EMISSIONS UNIT ID P006

EMISSIONS UNIT DESCRIPTION 80 megawatt simple cycle combustion turbine firing natural gas and no. 2 fuel oil used for generating electricity for peaking purposes

DATE INSTALLED

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			5.0 lbs/hr (gas) 10.0 lbs/hr (oil)	7.9
PM ₁₀					
Sulfur Dioxide	Attainment			2.0 lb/hr (gas) 61.0 lbs/hr (oil)	11.7
Organic Compounds	Attainment			20.0 lbs/hr (gas) 11.0 lbs/hr (oil)	30.43
Nitrogen Oxides	Attainment			178.5 lbs/hr (gas) 269.0 lbs/hr (oil)	245
Carbon Monoxide	Attainment			131.0 lbs/hr (gas) 80.0 lbs/hr (oil)	199.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? **Subpart GG**

NESHAP?

PSD?

OFFSET POLICY?

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

BAT is use of water injection to reduce nitrogen oxides emissions to 42 ppmvd when burning number two fuel oil and use of dry low NOx combustor to reduce NOx emissions to 42 ppmvd when burning natural gas, and the 245 TPY NOx allowable.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

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

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? YES NO

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cvcle

CITY/TWP Darby

Emissions Unit ID: T001

IDENTIFY THE AIR CONTAMINANTS:

Modeling was performed to determine the ambient impact of the source using the Industrial Source Complex Model, Version 3, update 99155 in its short-term mode. Modeling was performed for CO and NOx.

NEW SC

PTI Num

FACILITY

Emissions Unit ID: T001

FACILITY DESCRIPTION Six GE frame 7EA simple cycle combustion turbines and a fuel oil storage tank.

CITY/TWP Darby

SIC CODE 4911 SCC CODE 40301019/40301020/40301021 EMISSIONS UNIT ID T001

EMISSIONS UNIT DESCRIPTION 1,400,000 gallon fuel oil storage tank with an internal floating roof and submerged filling

DATE INSTALLED 3/2001

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Volatile Organic Compounds					0.01
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

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

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

BAT is compliance with the terms and conditions of the permit and all applicable rules and regulations and use of submerged fill pipe for tank loading.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

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

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: N/A

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cycle

CITY/TWP Darby

Emissions Unit ID: T001

Please describe any hard copy information is being submitted with this recommendation (Please send hard copy information to Pam McGraner, DAPC Central Office - Air Quality Modeling and Planning):

Please provide any additional permit specific notes as you deem necessary:

- The facility is basically unmanned. The only vehicular traffic would be an oil tanker used to fill the oil tank. As fuel oil is a back-up fuel, traffic will probably be infrequent.**

Permit To Install Synthetic Minor Write-Up

Facility/Source Description

DPL Energy, Inc. has submitted a Permit to Install (PTI) application for its 480 megawatt (MW) power generating facility. The Darby Electric Generating Station will be located approximately 10 miles south of the town of Derby.

Approximately 1.1 miles northeast of the intersection of Palestine-Williamsport road and Adkins road and approximately 0.5 miles southwest of the intersection of Darbyville-Palestine and Adkins road. The emission units (P001 through P006)) to be installed at this facility are six General Electric Frame 7-EA simple-cycle combustion turbines. Each turbine has a nominal capacity of 80 MW. Natural gas will be used as the primary fuel and #2 fuel oil will be used as back-up. The current PTI No 01-08156 includes federally enforceable terms and conditions. The terms and conditions requested in Darby Electric Generating Station's Synthetic Minor application will effectively restrict the facility's Potential-To-Emit (PTE) for all pollutants below the level that triggers Prevention of Significant Deterioration (PSD) permitting.

Facility/Source Emissions

The potential emissions were calculated for natural gas and number two fuel oil usage. The potential emissions were calculated by multiplying the maximum emission rate from each unit (lbs/hr) with six since there are six such units and 8,760 hours and dividing by 2,000 to get the potential emissions in tons/year. The Facility's potential emissions are summarized in Table 1 below:

Table 1.

Pollutant	Potential Emission Rate (tpy)from gas usage	Potential Emission Rate (tpy)from oil usage
PM/PM10	131.4	262.8
SO2	52.6	1601.5
NOx	4,231	7,069.3
CO	3,443	2,102.4
OC	526	289
VOC	105.0	144.5

The proposed facility is however, intended to operate as a peaking facility. Therefore, the facility's potential annual emissions will be restricted to the following emission rates summarized below in table 2.

Table 2.

NEW SOURCE REVIEW FORM B

PTI Number: 01-08156

Facility ID: 0165000132

FACILITY NAME Darby Electric Generating Station

FACILITY DESCRIPTION Six GE frame 7EA simple cycle

CITY/TWP Darby

Emissions Unit ID: T001

Pollutant	Total emissions from natural gas firing (tpy)	Total emissions from fuel oil firing (tpy)	Total emissions (tpy) from gas/oil combination	Total emissions (tpy) from gas only operation	PTI allowable (tpy)
NOx	204.65	40.35	245	245	245
CO	166.52	12.0	178.52	199.4	199.4
OCs	25.42	1.65	27.07	30.43	30.43
VOCs	5.08	0.83	5.91	6.09	6.09
PM	6.36	1.5	7.9	7.61	7.9
SO2	2.54	9.14	11.7	3.04	11.7

C. Emission unit limitations

To ensure synthetic minor status, a ton per year cap has been placed on nitrogen oxides and carbon monoxide emissions. Carbon monoxide and nitrogen oxides emissions from all the turbines will be monitored using certified continuous emission rate monitors. The annual emission rates will be based on a 12-month rolling average and determined at the end of each calendar month and are federally enforceable. The short term emission limits are based on the maximum design capacity of each emissions unit and are consistent with state Best Available Technology (BAT) requirements. BAT has been determined as use of water injection to control NOx emissions during combustion of fuel oil and use of dry low NOx burners during natural gas combustion. NOx will be restricted to 15 ppm while burning natural gas, at full load and 42 ppm while burning #2 fuel oil, at full load. The short term limits are summarized in table 3 below:

Table 3.

Pollutant	Short term emission limits for natural gas firing.	Short term emission limits for fuel oil firing
NOx	178.5** lbs/hr, 15*** ppmvd	269.0** lbs/hr, 42*** ppmvd
CO	131.0 lbs/hr	80.0 lbs/hr
OCs	20.0 lbs/hr	11.0 lbs/hr
VOCs	4.0* lbs/hr	5.5* lbs/hr
PM	5.0 lbs/hr	10.0 lbs/hr
SO2	2.0 lbs/hr	61.0 lbs/hr

* the permittee has submitted emissions data that supports for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.

** This value represents the maximum, **one-hour average** NOx emission rate.

*** **NOx ppmvd concentration limitations apply only at full load conditions.**

D. Conclusions

The emission limits and operational restrictions contained in the synthetic minor PTI are adequate to provide a federally enforceable framework for ensuring that applicable PSD thresholds will not be exceeded.

178 NEW SC

PTI Num

FACILITY

FACILITY DESCRIPTION

Six GE frame 7EA simple cycle
combustion turbines and a fuel oil storage
tank.

CITY/TWP

Emissions Unit ID: T001

Darby

Please fill in the following for this permit:

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
Carbon Monoxide	199.4
Nitrogen Oxide	245.0
Organic Compound	30.43
Volatile Organic Compound	6.09
Particulate Matter	7.9
Sulfur Dioxide	11.7