State of Ohio Environmental Protection Agency

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

**RE: DRAFT PERMIT TO INSTALL MODIFICATION** **CERTIFIED MAIL**
**HAMILTON COUNTY**
**Application No: 14-05108**
**Fac ID:** 1431070849
**DATE:** 11/21/2006

University of Cincinnati
Jan-Arthur Utrecht
210181
CIncinnati, OH 45221-0181

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of **$ 150** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

**CC: USEPA HCDES OH-KY-IN Regional Planning Commission KY IN**

**HAMILTON COUNTY**

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **14-05108** FOR AN AIR CONTAMINANT SOURCE FOR
**University of Cincinnati**

On 11/21/2006 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **University of Cincinnati**, located at **3001 Vine Street, Cincinnati**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 14-05108:

**Administrative modification request for Combined Cyle Turbines; increase allowable startups and shutdowns, modify catalytic oxidizer setpoints.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Brad Miller, Hamilton County Department of Environmental Services, 250 William Howart Taft Pkwy, Cincinnati, OH 45219-2660 [(513)946-7777]

## DRAFT MODIFICATION OF PERMIT TO INSTALL 14-05108

| | |
|---|---|
| Application Number: | 14-05108 |
| Facility ID: | 1431070849 |
| Permit Fee: | **To be entered upon final issuance** |
| Name of Facility: | University of Cincinnati |
| Person to Contact: | Jan-Arthur Utrecht |
| Address: | 210181<br>CIncinnati, OH 45221-0181 |

Location of proposed air contaminant source(s) [emissions unit(s)]:
**3001 Vine Street**
**Cincinnati**, **Ohio**

Description of proposed emissions unit(s):
**Administrative modification request for Combined Cyle Turbines; increase allowable startups and shutdowns, modify catalytic oxidizer setpoints.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

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

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

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

**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 re-issuance, or modification

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

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

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

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

permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

**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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**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 its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

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

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

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

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

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

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

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

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

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

**10. Permit-To-Operate Application**

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

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit 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 ninety (90) days after commencing operation of the source(s) covered by this permit.

**11. Best Available Technology**

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

**12. 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.

**13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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

### 1. Compliance Requirements

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

### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### 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. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or 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.

**5. Construction of New Sources(s)**

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

**6. 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.

**7. 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).

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

**9. 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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## C. Permit-To-Install Summary of Allowable Emissions

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

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

| Pollutant | Tons Per Year |
|---|---|
| PE/PM10 | 14.04 |
| SO2 | 3.47 |
| NOx | 193.15 |
| CO | 23.33 |
| VOC | 5.90 |

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

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

None

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

None

Emissions Unit ID: P003

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

### A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

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

**Operations, Property, and/or Equipment - (P003) - 14.5 MW Natural Gas/ No. 2 Fuel Oil fired Turbines with 98.5 mmBtu/hr duct burner - Modification**

| Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|

Emissions Unit ID: P003

| | |
|---|---|
| OAC Rule 3745-31-05(A)(3) | See terms and conditions A.I.2.e and A.I.2.g through A.I.2.n.<br><br>EMISSION LIMITS DURING NORMAL OPERATION WITHOUT DUCT BURNER FIRING:<br><br>Particulate matter (PM) emissions shall not exceed 1.08 lbs/hr;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 0.10 lb/hr;<br><br>Organic compounds (OC) emissions shall not exceed 0.56 lb/hr; and<br><br>Carbon monoxide (CO) emissions shall not exceed 1.97 lbs/hr.<br><br>EMISSION LIMITS DURING NORMAL OPERATION WITH DUCT BURNER FIRING:<br><br>Particulate matter (PM) emissions shall not exceed 2.07 lbs/hr;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 0.16 lb/hr;<br><br>Organic compounds (OC) emissions shall not exceed 0.78 lb/hr; and<br><br>Carbon monoxide (CO) emissions shall not exceed 2.84 lbs/hr.<br><br>EMISSION LIMITS DURING BACKUP OPERATION:<br><br>Particulate matter (PM) emissions shall not exceed 1.79 lbs/hr;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 7.54 lb/hr;<br><br>Organic compounds (OC) emissions shall not exceed 0.55 lbs/hr; and<br><br>Carbon monoxide (CO) emissions shall not exceed 1.92 lbs/hr.<br><br>The requirements of this rule include compliance with the requirements of OAC rule 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(C), 40 CFR Part 60, Subpart GG and 40 CFR Part 60, Subpart Dc. |

Emissions Unit ID: P003

| | |
|---|---|
| OAC rule 3745-31-10 through 3745-31-20. | EMISSION LIMITS DURING NORMAL OPERATION WITHOUT DUCT BURNER FIRING:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 25 ppmvd at 15% oxygen and 14.71 lbs/hr; and<br><br>PM10 emissions shall not exceed 0.0073 lb/mmBtu and 1.08 lbs/hr**.**<br><br>EMISSION LIMITS DURING NORMAL OPERATION WITH DUCT BURNER FIRING:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 0.10 lb/mmBtu and 24.56 lbs/hr; and<br><br>PM10 emissions shall not exceed 0.0084 lb/mmBtu and 2.07 lbs/hr**.**<br><br>EMISSION LIMITS DURING BACKUP OPERATION:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 96 ppmvd at 15% oxygen and 54.91 lbs/hr; and<br><br>PM10 emissions shall not exceed 0.013 lb/mmBtu and 1.79 lbs/hr. |
| OAC rule 3745-31-05(C) | COMBINED EMISSIONS FROM THE TURBINE AND DUCT BURNER AT ALL LOAD CONDITIONS, INCLUDING STARTUP/SHUTDOWN, NORMAL AND BACKUP:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 91.5 TPY***;***<br><br>PM10 emissions shall not exceed 7.0 TPY***;***<br><br>Benzene emissions shall not exceed 0.0011 TPY***;***<br><br>Particulate matter (PM) emissions shall not exceed 7.0 TPY*;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 1.63 TPY***;***<br><br>Organic compounds (OC) emissions shall not exceed 2.82 TPY*; and<br><br>Carbon monoxide (CO) emissions shall not exceed 11.46 TPY***.*** |
| 40 CFR 60, Subpart GG | See term A.I.2.a, A.III.13 and A.III.14. |
| 40 CFR 60, Subpart Dc | See term A.III.16. |

Emissions Unit ID: P003

| | |
|---|---|
| OAC rule 3745-18-06(F) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| OAC rule 3745-17-07(A) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| OAC rule 3745-17-11(B)(4) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| 40 CFR Part 75 | See term A.I.2.b. |
| OAC rule 3745-103 | See term A.I.2.b. |
| | * Based on a rolling, 12-month summation |
| | Assume PM=PM10 |

## 2. Additional Terms and Conditions

**2.a** The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05(A)(3) and OAC rule 3745-31-10 through 3745-31-20. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

**2.b** If the permittee is subject to the requirements of 40 CFR Part 72 and 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

**Issued: To be entered upon final issuance**

**2.c** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of dry low NOx burners with a 25.0 ppm NOx emission limit during normal operation, a catalytic oxidizer to control CO and VOC emissions at a destruction efficiency of at least 89 percent by weight, and limited usage of diesel fuel in the turbine and natural gas in the duct burner.

**2.d** 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.

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

**2.f** The hourly emission limitation(s) for PM, PM10, SO2 and VOC outlined in term A.I.1 are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limitations.

**2.g** "Normal Operation" shall be defined as the period when the combustion turbine achieves dry low NOx mode, burning natural gas at steady state operation, between 50 percent load (equivalent to an output of 7.25 megawatts) and full load.

**2.h** "Backup Operation" shall be defined as the period when the combustion turbine achieves dry low NOx mode, burning diesel fuel at steady state operation, between 65 percent load (equivalent to an output of 9.425 megawatts) and full load. Duct burners shall not operate during periods of backup operation.

**2.i** "Full Load" shall be defined as any load greater than or equal to the nominally rated maximum output of 14.5 megawatts.

**2.j** "Startup" shall be defined as the period between initial fuel light-off in the combustion turbine until the combustion turbine reaches normal or backup operations.

**2.k** "Shutdown" shall be defined as the period beginning when the combustion turbine leaves normal or backup operations until combustion has ceased.

Emissions Unit ID: P003

**2.I** When burning natural gas, during startup/shutdown cycle, the following emission limits shall not be exceeded for this emission unit:

NOx = 47.5 lbs/ startup/shutdown cycle; and
CO = 17.5 lbs/ startup/shutdown cycle.

**Issued: To be entered upon final issuance**

**2.m** When burning diesel fuel, during startup/shutdown cycle, the following emission limits shall not be exceeded for this emission unit:

NOx = 137.3 lbs/ startup/shutdown cycle; and
CO = 11.3 lbs/ startup/shutdown cycle.

**2.n** A startup/shutdown cycle shall not exceed a maximum total duration of 150 minutes.

## II. Operational Restrictions

1. The permittee shall only burn natural gas in the duct burner portion of this emissions unit, and except as allowed in term A.II.3 of this permit, the permittee shall only burn natural gas in the combustion turbine portion of this emission unit. The maximum sulfur content of natural gas shall not exceed 2 grains per 100 standard cubic feet.

2. The sulfur content of the diesel fuel used in this combustion turbine shall not exceed 0.05 percent by weight.

3. The maximum annual operating hours for the combustion turbine while burning diesel fuel shall not exceed 288 hours, based upon a rolling, 12-month summation of the operating hours.

   To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Operating Hours |
|---|---|
| 1 | 144 |
| 1-2 | 144 |
| 1-3 | 144 |
| 1-4 | 144 |
| 1-5 | 144 |
| 1-6 | 170 |
| 1-7 | 195 |
| 1-8 | 220 |
| 1-9 | 245 |
| 1-10 | 270 |
| 1-11 | 288 |

**Issued: To be entered upon final issuance**

| | |
|---|---|
| 1-12 | 288 |

After the first 12 calendar months of operation, following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

**Issued: To be entered upon final issuance**

4. The maximum annual natural gas usage for the duct burner of this emission unit shall not exceed 515 million standard cubic feet, based upon a rolling, 12-month summation of the natural gas usage figures.

   To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Natural Gas Usage, mmscf |
|---|---|
| 1 | 71 |
| 1-2 | 142 |
| 1-3 | 213 |
| 1-4 | 284 |
| 1-5 | 355 |
| 1-6 | 426 |
| 1-7 | 497 |
| 1-8 | 515 |
| 1-9 | 515 |
| 1-10 | 515 |
| 1-11 | 515 |
| 1-12 | 515 |

   After the first 12 calendar months of operation, following the issuance of this permit, compliance with the annual natural gas usage limitation shall be based upon a rolling, 12- month summation of the natural gas usage levels.

5. The average combustion temperature within the oxidation catalyst, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

6. Duct burners shall not operate during backup mode operation.

7. The number of startup/shutdown cycles per year shall not exceed 216 cycles.

8. The maximum annual heat input rate to the combustion turbine of this emission unit shall not exceed 1,177,200 mmBtu, based upon a rolling, 12-month summation of the fuel usage figures. The permittee has records to demonstrate compliance with this limitation upon issuance of this permit.

**Issued: To be entered upon final issuance**

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information:

   a. the emissions unit's actual electrical output for each operating hour; and

   b. for each day during which the permittee burns a fuel other than natural gas and/or diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall maintain monthly records of the following information for this emissions unit:

   a. The natural gas usage rate in the combustion turbine for each month (in standard cubic feet).

   b. The natural gas usage rate in the duct burner for each month (in standard cubic feet).

   c. The diesel fuel usage rate in the combustion turbine for each month (in gallons).

   d. The hours of operation of the combustion turbine.

   e. The hours of operation of the duct burners and the fuel used during those hours of operation.

   f. The hours of operation of the combustion turbine while burning diesel fuel.

   g. The number of startup/shutdown cycles for each month.

   h. Beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation of the combustion turbine while burning diesel fuel.

   i. Beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the natural gas usage rate in the duct burner.

   j. The monthly emission rate for NOx, CO, SO2, PM/PM10 and VOC, in tons.

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k. Beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of NOx, CO, SO2, PM/PM10 and VOC, in tons.

l. The rolling, 12-month summation of the actual heat input rate of the combustion turbine.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative hours of operation of the combustion turbine while burning diesel fuel for each calender month, and the cumulative natural gas usage rate in the duct burner for each calender month.

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3. The permittee shall maintain monthly records of the following information for this emissions unit in order to monitor compliance with the startup and shutdown emission limitations and operational restrictions:

   a. the date and duration, in minutes, of each startup and shutdown cycle;

   b. the emissions, in pounds, for NOx and CO when burning natural gas for each startup and shutdown cycle; and

   c. the emissions, in pounds, for NOx and CO when burning diesel fuel for each startup and shutdown cycle.

   The permittee shall use the continuous NOx and CO emissions monitoring data to determine the NOx and CO emissions for these emissions units. During any period when the NOx and/or the CO emissions monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine NOx and CO (although 40 CFR Part 75 pertains mainly to determinating NOx and SO2 emissions and not to determining CO emissions, the permittee may use the same procedures allowed in 40 CFR Part 75 to determine NOx emissions to determine CO emissions) emissions or an approved data substitution protocol. The data substitution values shall not be used to demonstrate compliance with the hourly NOx and CO emission limitations applicable during normal or backup operation of this emissions unit.

4. For each shipment of diesel fuel received for burning in this emissions unit, the permittee shall maintain records of the total quantity of diesel fuel received, the permittee's or diesel fuel supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the diesel fuel for those loads may be represented by a single batch analysis from the supplier.

   The permittee shall collect or require the diesel fuel supplier to collect a representative grab sample for each shipment of diesel fuel that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

5. <u>Continuous NOx Monitoring - Certified Systems</u>

Emissions Unit ID: P003

Statement of Certification

Prior to the installation of the continuous $NO_x$ monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification

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6 or 40 CFR Part 75 (The permittee may use 40 CFR Part 75 continuous emissions monitoring systems (CEMS) methodology using fuel flow monitors in conjunction with CEMS data to determine NOx mass emissions if it is done in accordance with the provisions listed 40 CFR Part 75) for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2 and Performance Specification 6 or 40 CFR Part 75 if low mass emission criteria described in 40 CFR Part 75 have been met. When 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine mass emissions, the Relative Accuracy requirements of 40 CFR Part 60, Performance Specification 6 are still required to be met, although other requirements from this performance specification may not be required. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous $NO_x$ monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, Performance Specification 6, and 40 CFR Part 75 where applicable.

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 the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B, Section 1.3 for fuel flow monitors. The quality assurance/quality control plan and a logbook dedicated to the continuous $NO_x$ monitoring system must be kept on site and available for inspection during regular office hours.

6. The permittee shall operate and maintain existing equipment to continuously monitor and record $NO_x$ from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 When 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data for mass

emissions determinations, fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D, Sections 2.1.2 and 2.1.5.

Data necessary for mass emission calculations per 40 CFR Part 75, Appendix D shall be recorded.

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The permittee shall maintain records of all data obtained by the continuous $NO_x$ monitoring system including, but not limited to, parts per million $NO_x$ on an instantaneous (one-minute) basis, emissions of $NO_x$ in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

During any period when the continuous NOx emission monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the NOx emissions.

7. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6, or 40 CFR Part 75 (The permittee may use 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine CO mass emissions if it is done in a manner consistent with NOx mass emissions determinations as allowed in 40 CFR Part 75) for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4A and Performance Specification 6 . If 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine mass emissions, the Relative Accuracy requirements of 40 CFR Part 60, Performance Specification 6 are still required to be met, although other requirements from this performance specification may not be required. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4A and Performance Specification 6.

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.

8. 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. When 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine mass emissions, fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D, Sections 2.1.2 and 2.1.5.

   Data necessary for mass emission calculations per 40 CFR Part 75, Appendix D shall be recorded.
   The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

9. Continuous $O_2$ or $CO_2$ Monitoring - Certified Systems
   Statement of Certification

   Prior to the installation of the continuous $O_2$ monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

   Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), and 40 CFR Part 60, Appendix B, Performance Specification 3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous $O_2$ monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance

Specification 3.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous $O_2$ monitoring system designed to ensure continuous valid and representative readings of $O_2$ . The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F . The quality assurance/quality control plan and a logbook dedicated to the continuous $O_2$ monitoring system must be kept on site and available for inspection during regular office hours.

10. The permittee shall operate and maintain equipment to continuously monitor and record $O_2$ from this emissions unit in percent $O_2$. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13

    The permittee shall maintain records of all data obtained by the continuous $O_2$ monitoring system including, but not limited to, percent $O_2$ on an instantaneous (one-minute) basis, emissions of $O_2$ results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

11. The permittee shall maintain hourly records of the following information for this emissions unit:

    in lb(s)/hr emissions rate for $NO_x$ and CO as obtained from terms III.6 and 8, and NOx ppmvd @15% O2 as obtained from term A.III.6 based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

12. The permittee maintain records demonstrating that the natural gas fired in this emission unit meets the definition of natural gas in 40 CFR 60.331(u). The permittee shall use one of the following sources of information to make the required demonstration:

    a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content if the fuel is 2.0 grains/100 scf or less; or

    b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 2.0 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR 75 is required.

13. The permittee shall use one of the total sulfur sampling options and the associated sampling frequency as described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to 40 CFR 75 (i.e. flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with the fuel oil already in the intended storage tank).

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14. The permittee shall maintain documentation on the sulfur contents of the fuels as required in 40 CFR 60.334(h) and (i).

15. The permittee shall perform weekly checks, when this emissions unit is in operation, during daylight hours, and when weather conditions allow, for any visible particulate emissions from the stack/stacks serving this/these emissions unit(s). The presence or absence of any visible emissions shall be noted in an operation log. If visible emissions are observed, the permittee shall also note the following in the operations log:

    a. the color of the emissions;

    b. whether the emissions are representative of normal operations;

    c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

    d. the total duration of any visible emission incident; and,

    e. any corrective actions taken to eliminate the visible emissions.

16. The permittee shall maintain daily records of the natural gas usage rate in the duct burner.

17. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the oxidation catalyst when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

    The permittee shall collect and record the following information for each day:

    a. All 3-hour blocks of time during which the average combustion temperature within the oxidation catalyst, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

    b. A log of the downtime for the capture (collection) system, control device, and

monitoring equipment, when the associated emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

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

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

4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record that shows a deviation of the allowable sulfur dioxide limitation specified in term A.II.2. of this permit. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the deviation occurs.

5. Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of $NO_x$ values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total $NO_x$ emissions for the calendar quarter (in tons).

   The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous $NO_x$ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and

the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission reports pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

6. Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

   The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the

reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission reports pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

7. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous $O_2$ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall address the data obtained during the previous calendar quarter.

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

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P003 in accordance with this permit.

10. The permittee shall submit semiannual written reports which (a) identify all weeks during which any visible particulate emissions were observed from the stack serving this emissions units and (b) if needed describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 and July 31 of each year and shall cover the previous 6 calendar month period.

11. The permittee shall submit annual reports which specify the total NOx, SO2, OC, PM/PM10 and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year. The CAA, Title V Fee Emission Report (FER) required to be submitted annually by April 15 for the facility will also satisfy the emission reporting requirement of this condition.

12. This emissions unit is subject to the applicable provisions of Subpart Dc and GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

    Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

    a. construction date (no later than 30 days after such date);

    b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

    c. actual start-up date (within 15 days after such date); and,

    d. date of performance testing (if required, at least 30 days prior to testing).

    Reports are to be sent to:

    Hamilton County Department of Environmental Services
    250 William Howard Taft Rd.
    Cincinnati, Ohio 45219

13. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the oxidation catalyst does not comply with the temperature limitation specified in term A.II.5.

14. The permittee shall submit deviation (excursion) reports which identify all exceedances

of the NOx and CO emissions limitations for each startup/shutdown cycle as specified in term and condition A.I.2.l and A.I.2.m.

15. The permittee shall submit deviation (excursion) reports which identify all exceedances of the number of startup/shutdown cycles limit in term A.II.7 or the startup/shutdown duration limit in term A.I.2.n.

16. Unless specified, the deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

   b. The emission testing shall be conducted to demonstrate compliance with the $NO_x$ outlet concentration, and the mass emissions limitations for $NO_x$,* CO, OC, PM, and visible emission limitation, and destruction efficiency for CO and OC.

   c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for $NO_x$, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9,; for OC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

   e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 Hamilton County Department of

Environmental Services refusal to accept the results of the emission test(s).

f. Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in section A.I.1of this permit shall be determined according to the following methods:

a. NOx Emission Limitations

See section A.I.1.

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.6 based upon an hourly averaging period. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

b. PM Emission Limitation

See section A.I.1.

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. SO2 Emission Limitation

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See section A.I.1.

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in condition A.III.2,4,13,and 14. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

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d. OC Emission Limitations

See section A.I.1.

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

e. CO Emission Limitation

See section A.I.1.

Applicable Compliance Method

Initial compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.8 based upon an hourly averaging period . Compliance with the annual emission limitation shall be determined by the record keeping required in condition III.2.

f. Emission Limitation

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

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

3. Emission Limitation:

0.05 percent sulfur by weight for the diesel fuel.

Applicable Compliance Method:

When firing diesel fuel, except as provided below, compliance with the allowable SO2

emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of diesel fuel received during a calendar month meets the limitation.

If required, the permittee shall demonstrate compliance with this emission limitation (when firing diesel fuel) in accordance with 40 CFR, Part 60, Appendix A, Method 6C.

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4. Compliance with the hours of operation limitation when burning diesel fuel in the combustion turbine shall be demonstrated by the record keeping in term A.III.2.

5. Compliance with the natural gas usage limitation for the duct burner shall be demonstrated by the record keeping in term A.III.2.

6. Compliance with the emissions limitations in terms and conditions A.I.2.l and A.I.2.m shall be demonstrated by the monitoring and record keeping required in term and condition A.III.3.

7. Compliance with the limitation in term and condition A.I.2.n. shall be demonstrated by the monitoring and record keeping required in term and condition A.III.3.

8. Compliance with the operational restriction in term and condition A.II.7 shall be demonstrated by the monitoring and record keeping required in term and condition A.III.2.g.

9. Compliance with the annual heat input operational restriction in term and condition A.II.8 shall be demonstrated by the monitoring and record keeping required in term and condition A.III.2.l.

## VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install supersede the terms and conditions in Permit to Install 14-05108 as issued on August 15, 2002 and modified on August 25, 2005.

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## B. State Only Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

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

**Operations, Property, and/or Equipment - (P003) - 14.5 MW Natural Gas/ No. 2 Fuel Oil fired Turbines with 98.5 mmBtu/hr duct burner - Modification**

| Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|
| | See term B.VI |

**2. Additional Terms and Conditions**

**2.a** None

### II. Operational Restrictions

None

### III. Monitoring and/or Recordkeeping Requirements

None

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic

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compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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

### A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

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

**Operations, Property, and/or Equipment - (P004) - 14.5 MW Natural Gas/ No. 2 Fuel Oil fired Turbines with 98.5 mmBTtu/hr duct burner - Modification**

| Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|

Emissions Unit ID: P004

| | |
|---|---|
| OAC Rule 3745-31-05(A)(3) | See terms and conditions A.I.2.e and A.I.2.g through A.I.2.n.<br><br>EMISSION LIMITS DURING NORMAL OPERATION WITHOUT DUCT BURNER FIRING:<br><br>Particulate matter (PM) emissions shall not exceed 1.08 lbs/hr;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 0.10 lb/hr;<br><br>Organic compounds (OC) emissions shall not exceed 0.56 lb/hr; and<br><br>Carbon monoxide (CO) emissions shall not exceed 1.97 lbs/hr.<br><br>EMISSION LIMITS DURING NORMAL OPERATION WITH DUCT BURNER FIRING:<br><br>Particulate matter (PM) emissions shall not exceed 2.07 lbs/hr;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 0.16 lb/hr;<br><br>Organic compounds (OC) emissions shall not exceed 0.78 lb/hr; and<br><br>Carbon monoxide (CO) emissions shall not exceed 2.84 lbs/hr.<br><br>EMISSION LIMITS DURING BACKUP OPERATION:<br><br>Particulate matter (PM) emissions shall not exceed 1.79 lbs/hr;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 7.54 lb/hr;<br><br>Organic compounds (OC) emissions shall not exceed 0.55 lbs/hr; and<br><br>Carbon monoxide (CO) emissions shall not exceed 1.92 lbs/hr.<br><br>The requirements of this rule include compliance with the requirements of OAC rule 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(C), 40 CFR Part 60, Subpart GG and 40 CFR Part 60, Subpart Dc. |

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| | |
|---|---|
| OAC rule 3745-31-10 through 3745-31-20. | EMISSION LIMITS DURING NORMAL OPERATION WITHOUT DUCT BURNER FIRING:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 25 ppmvd at 15% oxygen and 14.71 lbs/hr; and<br><br>PM10 emissions shall not exceed 0.0073 lb/mmBtu and 1.08 lbs/hr.<br><br>EMISSION LIMITS DURING NORMAL OPERATION WITH DUCT BURNER FIRING:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 0.10 lb/mmBtu and 24.56 lbs/hr; and<br><br>PM10 emissions shall not exceed 0.0084 lb/mmBtu and 2.07 lbs/hr.<br><br>EMISSION LIMITS DURING BACKUP OPERATION:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 96 ppmvd at 15% oxygen and 54.91 lbs/hr; and<br><br>PM10 emissions shall not exceed 0.013 lb/mmBtu and 1.79 lbs/hr. |

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| | |
|---|---|
| OAC rule 3745-31-05(C) | COMBINED EMISSIONS FROM THE TURBINE AND DUCT BURNER AT ALL LOAD CONDITIONS, INCLUDING STARTUP/SHUTDOWN, NORMAL AND BACKUP:<br><br>Nitrogen oxides ($NO_x$) emissions shall not exceed 91.5 TPY***;***<br><br>PM10 emissions shall not exceed 7.0 TPY***;***<br><br>Benzene emissions shall not exceed 0.0011 TPY***;***<br><br>Particulate matter (PM) emissions shall not exceed 7.0 TPY*;<br><br>Sulfur dioxide ($SO_2$) emissions shall not exceed 1.63 TPY***;***<br><br>Organic compounds (OC) emissions shall not exceed 2.82 TPY*; and<br><br>Carbon monoxide (CO) emissions shall not exceed 11.46 TPY***.*** |
| 40 CFR 60, Subpart GG | See term A.I.2.a, A.III.13 and A.III.14. |
| 40 CFR 60, Subpart Dc | See term A.III.16. |
| OAC rule 3745-18-06(F) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| OAC rule 3745-17-07(A) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| OAC rule 3745-17-11(B)(4) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| 40 CFR Part 75 | See term A.I.2.b. |
| OAC rule 3745-103 | See term A.I.2.b. |
| | * Based on a rolling, 12-month summation |
| | Assume PM=PM10 |

**2. Additional Terms and Conditions**

**2.a** The emissions limits based on this applicable rule are equivalent to or less stringent than the limits established pursuant to OAC rule 3745-31-05(A)(3) and OAC rule 3745-31-10 through 3745-31-20. Except as provided for in the terms

and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

**2.b** If the permittee is subject to the requirements of 40 CFR Part 72 and 75 concerning acid rain, the permittee shall ensure that any effected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

**2.c** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of dry low NOx burners with a 25.0 ppm NOx emission limit during normal operation, a catalytic oxidizer to control CO and VOC emissions at a destruction efficiency of at least 89 percent by weight, and limited usage of diesel fuel in the turbine and natural gas in the duct burner.

**2.d** 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.

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

**2.f** The hourly emission limitation(s) for PM, PM10, SO2 and VOC outlined in term A.I.1. are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

**2.g** "Normal Operation" shall be defined as the period when the combustion turbine achieves dry low NOx mode, burning natural gas at steady state operation, between 50 percent load (equivalent to an output of 7.25 megawatts) and full load.

**2.h** "Backup Operation" shall be defined as the period when the combustion turbine achieves dry low NOx mode, burning diesel fuel at steady state operation, between 65 percent load (equivalent to an output of 9.425 megawatts) and full load. Duct burners shall not operate during periods of backup operation.

**2.i** "Full Load" shall be defined as any load greater than or equal to the nominally

rated maximum output of 14.5 megawatts.

**2.j** "Startup" shall be defined as the period between initial fuel light-off in the combustion turbine until the combustion turbine reaches normal or backup operations.

**2.k** "Shutdown" shall be defined as the period beginning when the combustion turbine leaves normal or backup operations until combustion has ceased.

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**2.l** When burning natural gas, during startup/shutdown cycle, the following emission limits shall not be exceeded for this emission unit:

NOx = 47.5 lbs/ startup/shutdown cycle
CO = 17.5 lbs/ startup/shutdown cycle

**2.m** When burning diesel fuel, during startup/shutdown cycle, the following emission limits shall not be exceeded for this emission unit:

NOx = 137.3 lbs/ startup/shutdown cycle
CO = 11.3 lbs/ startup/shutdown cycle

**2.n** A startup/shutdown cycle shall not exceed a maximum total duration of 150 minutes.

## II. Operational Restrictions

1. The permittee shall only burn natural gas in the duct burner portion of this emissions unit, and except as allowed in term A.II.3 of this permit, the permittee shall only burn natural gas in the combustion turbine portion of this emission unit. The maximum sulfur content of natural gas shall not exceed 2 grains per 100 standard cubic feet.

2. The sulfur content of the diesel fuel used in this combustion turbine shall not exceed 0.05 percent by weight.

3. The maximum annual operating hours for the combustion turbine while burning diesel fuel shall not exceed 288 hours, based upon a rolling, 12-month summation of the operating hours.

   To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Operating Hours |
|---|---|
| 1 | 144 |
| 1-2 | 144 |
| 1-3 | 144 |
| 1-4 | 144 |
| 1-5 | 144 |

| | |
|---|---|
| 1-6 | 170 |
| 1-7 | 195 |
| 1-8 | 220 |
| 1-9 | 245 |
| 1-10 | 270 |
| 1-11 | 288 |
| 1-12 | 288 |

After the first 12 calendar months of operation, following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

4. The maximum annual natural gas usage for the duct burner of this emission unit shall not exceed 515 million standard cubic feet, based upon a rolling, 12-month summation of the natural gas usage figures.

   To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Natural Gas Usage, mmscf |
|---|---|
| 1 | 71 |
| 1-2 | 142 |
| 1-3 | 213 |
| 1-4 | 284 |
| 1-5 | 355 |
| 1-6 | 426 |
| 1-7 | 497 |
| 1-8 | 515 |
| 1-9 | 515 |
| 1-10 | 515 |
| 1-11 | 515 |
| 1-12 | 515 |

   After the first 12 calendar months of operation, following the issuance of this permit, compliance with the annual natural gas usage limitation shall be based upon a rolling, 12- month summation of the natural gas usage levels.

5. The average combustion temperature within the oxidation catalyst, for any 3-hour block

of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

6. Duct burners shall not operate during backup mode operation.

7. The number of startup/shutdown cycles per year shall not exceed 216 cycles.

8. The maximum annual heat input rate to the combustion turbine of this emission unit shall not exceed 1,177,200 mmBtu, based upon a rolling, 12-month summation of the fuel usage figures. The permittee has records to demonstrate compliance with this limitation upon issuance of this permit.

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## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information:

   a. the emissions unit's actual electrical output for each operating hour; and

   b. for each day during which the permittee burns a fuel other than natural gas and/or diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall maintain monthly records of the following information for this emissions unit:

   a. The natural gas usage rate in the combustion turbine for each month (in standard cubic feet).

   b. The natural gas usage rate in the duct burner for each month (in standard cubic feet).

   c. The diesel fuel usage rate in the combustion turbine for each month (in gallons).

   d. The hours of operation of the combustion turbine.

   e. The hours of operation of the duct burners and the fuel used during those hours of operation.

   f. The hours of operation of the combustion turbine while burning diesel fuel.

   g. The number of startup/shutdown cycles for each month.

   h. Beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the hours of operation of the combustion turbine while burning diesel fuel.

   i. Beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of the natural gas usage rate in the duct burner.

   j. The monthly emission rate for NOx, CO, SO2, PM/PM10 and VOC, in tons.

   k. Beginning after the first 12 calendar months of operation following issuance of

this permit, the rolling, 12-month summation of NOx, CO, SO2, PM/PM10 and VOC, in tons.

l. The rolling, 12-month summation of the actual heat input rate of the combustion turbine.

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Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative hours of operation of the combustion turbine while burning diesel fuel for each calender month, and the cumulative natural gas usage rate in the duct burner for each calender month.

3. The permittee shall maintain monthly records of the following information for this emissions unit in order to monitor compliance with the startup and shutdown emission limitations and operational restrictions:

   a. the date and duration, in minutes, of each startup and shutdown cycle;

   b. the emissions, in pounds, for NOx and CO when burning natural gas for each startup and shutdown cycle; and

   c. the emissions, in pounds, for NOx and CO when burning diesel fuel for each startup and shutdown cycle.

   The permittee shall use the continuous NOx and CO emissions monitoring data to determine the NOx and CO emissions for these emissions units. During any period when the NOx and/or the CO emissions monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine NOx and CO (although 40 CFR Part 75 pertains mainly to determinating NOx and SO2 emissions and not to determining CO emissions, the permittee may use the same procedures allowed in 40 CFR Part 75 to determine NOx emissions to determine CO emissions) emissions or an approved data substitution protocol. The data substitution values shall not be used to demonstrate compliance with the hourly NOx and CO emission limitations applicable during normal or backup operation of this emissions unit.

4. For each shipment of diesel fuel received for burning in this emissions unit, the permittee shall maintain records of the total quantity of diesel fuel received, the permittee's or diesel fuel supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the diesel fuel for those loads may be represented by a single batch analysis from the supplier.

   The permittee shall collect or require the diesel fuel supplier to collect a representative grab sample for each shipment of diesel fuel that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the

analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

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5. Continuous NOx Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous $NO_x$ monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75 (The permittee may use 40 CFR Part 75 continuous emissions monitoring systems (CEMS) methodology using fuel flow monitors in conjunction with CEMS data to determine NOx mass emissions if it is done in accordance with the provisions listed 40 CFR Part 75) for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2 and Performance Specification 6 or 40 CFR Part 75 if low mass emission criteria described in 40 CFR Part 75 have been met. When 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine mass emissions, the Relative Accuracy requirements of 40 CFR Part 60, Performance Specification 6 are still required to be met, although other requirements from this performance specification may not be required. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous $NO_x$ monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, Performance Specification 6, and 40 CFR Part 75 where applicable.

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 the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B, Section 1.3 for fuel flow monitors. The quality assurance/quality control plan and a logbook dedicated to the continuous $NO_x$ monitoring system must be kept on site and available for inspection during regular office hours.

6. The permittee shall operate and maintain existing equipment to continuously monitor and record $NO_x$ from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 When 40 CFR Part 75 CEMS

methodology using fuel flow monitors in conjunction with CEMS data for mass emissions determinations, fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D, Sections 2.1.2 and 2.1.5.

Data necessary for mass emission calculations per 40 CFR Part 75, Appendix D shall be recorded.

The permittee shall maintain records of all data obtained by the continuous $NO_x$ monitoring system including, but not limited to, parts per million $NO_x$ on an instantaneous (one-minute) basis, emissions of $NO_x$ in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

During any period when the continuous NOx emission monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the NOx emissions.

7. Continuous CO Monitoring - Certified Systems
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6, or 40 CFR Part 75 (The permittee may use 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine CO mass emissions if it is done in a manner consistent with NOx mass emissions determinations as allowed in 40 CFR Part 75) for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4A and Performance Specification 6 . If 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine mass emissions, the Relative Accuracy requirements of 40 CFR Part 60, Performance Specification 6 are still required to be met, although other requirements from this performance specification may not be required. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all

requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4A and Performance Specification 6.

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.

8. 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. When 40 CFR Part 75 CEMS methodology using fuel flow monitors in conjunction with CEMS data to determine mass emissions, fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D, Sections 2.1.2 and 2.1.5.

   Data necessary for mass emission calculations per 40 CFR Part 75, Appendix D shall be recorded. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

9. Continuous $O_2$ or $CO_2$ Monitoring - Certified Systems
   Statement of Certification

   Prior to the installation of the continuous $O_2$ monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

   Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), and 40 CFR Part 60, Appendix B, Performance Specification 3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted

to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous $O_2$ monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous $O_2$ monitoring system designed to ensure continuous valid and representative readings of $O_2$ . The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F . The quality assurance/quality control plan and a logbook dedicated to the continuous $O_2$ monitoring system must be kept on site and available for inspection during regular office hours.

10. The permittee shall operate and maintain equipment to continuously monitor and record $O_2$ from this emissions unit in percent $O_2$ . Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13

    The permittee shall maintain records of all data obtained by the continuous $O_2$ monitoring system including, but not limited to, percent $O_2$ on an instantaneous (one-minute) basis, emissions of $O_2$ results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

11. The permittee shall maintain hourly records of the following information for this emissions unit:

    in lb(s)/hr emissions rate for $NO_x$ and CO as obtained from terms III.6. and 8, and NOx ppmvd@15% O2 as obtained from term A.III. 6. based upon an hourly averaging period as allowed in the appropriate sections of 40 CFR Part 60.

12. The permittee maintain records demonstrating that the natural gas fired in this emission unit meets the definition of natural gas in 40 CFR 60.331(u). The permittee shall use one of the following sources of information to make the required demonstration:

    a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content if the fuel is 2.0 grains/100 scf or less; or

    b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 2.0 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR 75 is required.

13. The permittee shall use one of the total sulfur sampling options and the associated sampling frequency as described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to 40 CFR 75 (i.e. flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with the fuel oil already in the intended storage tank).

14. The permittee shall maintain documentation on the sulfur contents of the fuels as required in 40 CFR 60.334(h) and (i).

15. The permittee shall perform weekly checks, when this emissions unit is in operation, during daylight hours, and when weather conditions allow, for any visible particulate emissions from the stack/stacks serving this/these emissions unit(s). The presence or absence of any visible emissions shall be noted in an operation log. If visible emissions are observed, the permittee shall also note the following in the operations log:

    a. the color of the emissions;

    b. whether the emissions are representative of normal operations;

    c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

    d. the total duration of any visible emission incident; and,

    e. any corrective actions taken to eliminate the visible emissions.

16. The permittee shall maintain daily records of the natural gas usage rate in the duct burner.

17. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the oxidation catalyst when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, with any modifications deemed necessary by the permittee.

    The permittee shall collect and record the following information for each day:

    a. All 3-hour blocks of time during which the average combustion temperature within the oxidation catalyst, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

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b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

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

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

4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record that shows a deviation of the allowable sulfur dioxide limitation specified in term A.II.2. of this permit. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the deviation occurs.

5. Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of $NO_x$ values in excess of the applicable limits specified in 40 CFR Part 76 and any limitations specified in the terms and conditions of this permit or variance. These reports shall also contain the total $NO_x$ emissions for the calendar quarter (in tons).

   The permittee shall submit reports within 30 days following the end of each calendar

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission reports pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

6. Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

   The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit

a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission reports pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

7. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous $O_2$ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall address the data obtained during the previous calendar quarter.

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

9. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports for emissions unit P003 in accordance with this permit.

10. The permittee shall submit semiannual written reports which (a) identify all weeks during which any visible particulate emissions were observed from the stack serving this emissions units and (b) if needed describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 and July 31 of each year

and shall cover the previous 6 calendar month period.

11. The permittee shall submit annual reports which specify the total NOx, SO2, OC, PM/PM10 and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year. The CAA, Title V Fee Emission Report (FER) required to be submitted annually by April 15 for the facility will also satisfy the emission reporting requirement of this condition.

12. This emissions unit is subject to the applicable provisions of Subpart Dc and GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

    Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

    a. construction date (no later than 30 days after such date);

    b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

    c. actual start-up date (within 15 days after such date); and,

    d. date of performance testing (if required, at least 30 days prior to testing).

    Reports are to be sent to:

    Hamilton County Department of Environmental Services
    250 William Howard Taft Rd.
    Cincinnati, Ohio 45219

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13. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the oxidation catalyst does not comply with the temperature limitation specified in term A.II.5.

14. The permittee shall submit deviation (excursion) reports which identify all exceedances of the NOx and CO emissions limitations for each startup/shutdown cycle as specified in term and condition A.I.2.l and A.I.2.m.

15. The permittee shall submit deviation (excursion) reports which identify all exceedances of the number of startup/shutdown cycles limit in term A.II.7 or the startup/shutdown duration limit in term A.I.2.n.

16. Unless specified, the deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

   b. The emission testing shall be conducted to demonstrate compliance with the $NO_x$ outlet concentration, and the mass emissions limitations for $NO_x$,* CO, OC, PM, and visible emission limitation, and destruction efficiency for CO and OC.

   c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations: for $NO_x$, Method 20 of 40 CFR Part 60, Appendix A; for PM, Method 5 of 40 CFR Part 60, Appendix A; for visible emission limitations, Method 9,; for OC Method 25 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity with and without duct burner firing, unless otherwise specified or approved by Ohio EPA or local air agency.

   e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of

Environmental Services. 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 Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

f. Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

* Using the test methods and procedures required under 40 CFR Part 60.335.

2. Compliance with the allowable emission limitations in section A.I.1of this permit shall be determined according to the following methods:

a. NOx Emission Limitations

See section A.I.1.

Applicable Compliance Method

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.6 based upon an hourly averaging period . Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

b. PM Emission Limitation

See section A.I.1.

Applicable Compliance Method

Compliance with the lbs/hr emission limitations shall be demonstrated by the

performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

c. SO2 Emission Limitation

See section A.I.1.

Applicable Compliance Method

Compliance with the hourly emission limitation shall be determined by the record keeping required in condition A.III.2, 4, 13, and 14. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

d. OC Emission Limitations

See section A.I.1.

Applicable Compliance Method

Compliance with the lbs/hr limitations shall be demonstrated by the performance testing in condition A.V.1. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual annual hours of operation and dividing by 2000 lbs/ton.

e. CO Emission Limitation

See section A.I.1.

Applicable Compliance Method

Initial compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and continual compliance with those limitations shall be demonstrated by the use of the CEM in condition A.III.8 based upon an hourly averaging period. Compliance with the annual emission limitation shall be determined by the record keeping required in condition III.2.

f. Emission Limitation

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

Applicable Compliance Method

Compliance with the visible emissions limitation established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

3. Emission Limitation:

0.05 percent sulfur by weight for the diesel fuel.

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Applicable Compliance Method:

When firing diesel fuel, except as provided below, compliance with the allowable SO2 emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of diesel fuel received during a calendar month meets the limitation.

If required, the permittee shall demonstrate compliance with this emission limitation (when firing diesel fuel) in accordance with 40 CFR, Part 60, Appendix A, Method 6C.

4. Compliance with the hours of operation limitation when burning diesel fuel in the combustion turbine shall be demonstrated by the record keeping in term A.III.2.

5. Compliance with the natural gas usage limitation for the duct burner shall be demonstrated by the record keeping in term A.III.2.

6. Compliance with the emissions limitations in terms and conditions A.I.2.l and A.I.2.m shall be demonstrated by the monitoring and record keeping required in term and condition A.III.3.

7. Compliance with the limitation in term and condition A.I.2.n shall be demonstrated by the monitoring and record keeping required in term and condition A.III.3.

8. Compliance with the operational restriction in term and condition A.II.7 shall be demonstrated by the monitoring and record keeping required in term and condition A.III.2.g.

9. Compliance with the annual heat input operational restriction in term and condition A.II.8 shall be demonstrated by the monitoring and record keeping required in term and condition A.III.2.l.

## VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install supersede the terms and conditions in Permit to Install 14-05108 as issued on August 15, 2002 and modified on August 25, 2005.

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## B. State Only Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

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

**Operations, Property, and/or Equipment - (P004) - 14.5 MW Natural Gas/ No. 2 Fuel Oil fired Turbines with 98.5 mmBtu/hr duct burner - Modification**

| Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|
| | See term B.VI |

**2. Additional Terms and Conditions**

**2.a** None

### II. Operational Restrictions

None

### III. Monitoring and/or Recordkeeping Requirements

None

### IV. Reporting Requirements

None

### V. Testing Requirements

None

### VI. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittee to apply

for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.