



12/4/2014

Mr. Shawn Coffey
City of Lebanon
Electric Administration Building
125 SOUTH SYCAMORE ST
Lebanon, OH 45036

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1483060000
Permit Number: P0117944
Permit Type: Renewal
County: Warren

Dear Permit Holder:

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

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

How to appeal this permit

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

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

Certified Mail

Table with 2 columns: Yes/No and various permit conditions like TOXIC REVIEW, SYNTHETIC MINOR TO AVOID MAJOR NSR, CEMS, MACT/GACT, NSPS, NESHAPS, NETTING, MODELING SUBMITTED, SYNTHETIC MINOR TO AVOID TITLE V, FEDERALLY ENFORCABLE PTIO (FEPTIO), SYNTHETIC MINOR TO AVOID MAJOR GHG.

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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

Sincerely,



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

Cc: SWOAQA



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
City of Lebanon**

Facility ID:	1483060000
Permit Number:	P0117944
Permit Type:	Renewal
Issued:	12/4/2014
Effective:	12/4/2014
Expiration:	12/4/2019



Division of Air Pollution Control
Permit-to-Install and Operate
for
City of Lebanon

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Authorization

Facility ID: 1483060000
Application Number(s): A0051972
Permit Number: P0117944
Permit Description: Renewal of FEPTIO for two (2) gas turbines and three (3) RICE engines at a small public utility facility to generate electricity during periods of emergency and/or backup.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 12/4/2014
Effective Date: 12/4/2014
Expiration Date: 12/4/2019
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

City of Lebanon
119 South St
Lebanon, OH 45036

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

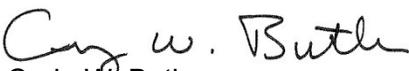
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0117944

Permit Description: Renewal of FEPTIO for two (2) gas turbines and three (3) RICE engines at a small public utility facility to generate electricity during periods of emergency and/or backup.

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

Emissions Unit ID:	B001
Company Equipment ID:	6000 KW Orenda Turbine for Electric Generation (Unit No. 7)
Superseded Permit Number:	P0106369
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B008
Company Equipment ID:	Gas Turbine #1
Superseded Permit Number:	P0100563
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	Generator Unit No. 8
Superseded Permit Number:	P0106369
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Generator Unit No. 5
Superseded Permit Number:	P0106369
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	Generator Unit No. 6
Superseded Permit Number:	P0106369
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate

City of Lebanon

Permit Number: P0117944

Facility ID: 1483060000

Effective Date: 12/4/2014

A. Standard Terms and Conditions



1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



Final Permit-to-Install and Operate
City of Lebanon
Permit Number: P0117944
Facility ID: 1483060000
Effective Date: 12/4/2014

B. Facility-Wide Terms and Conditions



Final Permit-to-Install and Operate

City of Lebanon

Permit Number: P0117944

Facility ID: 1483060000

Effective Date: 12/4/2014

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) The Ohio EPA has determined that this facility may be subject to U.S. EPA standards for control of hazardous air pollutants (HAP), the National Emission Standards for Hazardous Air Pollutants (NESHAP), found in the Code of Federal Regulations, Title 40 Part 63. At this time the Ohio EPA is not accepting the delegating authority to enforce NESHAP standards for area sources. The requirements of this NESHAP, that are applicable to the area source(s) (for HAP) identified in this permit, shall be enforceable by U.S. EPA. Region 5. The complete requirements of the applicable rule (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.



Final Permit-to-Install and Operate

City of Lebanon

Permit Number: P0117944

Facility ID: 1483060000

Effective Date: 12/4/2014

C. Emissions Unit Terms and Conditions



1. B001, 6000 KW Orenda Turbine for Electric Generation (Unit No. 7)

Operations, Property and/or Equipment Description:

6000 KW Orenda Turbine for Electric Generation (Unit No. 7)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)b., c)(1), d)(1), and e)(3).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions of nitrogen oxide (NOx) shall not exceed 94.5 pounds per hour. Emissions of carbon monoxide (CO) shall not exceed 0.4 pound per hour. Emissions of sulfur dioxide (SO2) shall not exceed 14.1 pounds per hour. Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.5 pound per hour. Emissions of volatile organic compounds (VOC) shall not exceed 0.4 pound per hour. See b)(2)a.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-07(A).
b.	OAC rule 3745-31-05(D)	<p>Emissions of NOx shall not exceed 19.85 tons per year (TPY), based on a rolling, 12-month summation.</p> <p>Emissions of CO shall not exceed 0.07 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of SO2 shall not exceed 2.96 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of PE/PM10 shall not exceed 0.10 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of VOC shall not exceed 0.09 TPY, based on a rolling, 12-month summation.</p> <p>See c)(1).</p>
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	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).
e.	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).

(2) Additional Terms and Conditions

- a. The SO2 emissions shall not exceed 0.1313 pound per million Btu of actual heat input. The quality of the fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the



allowable sulfur dioxide emission limitation of 0.1313 pound per million Btu of actual heat input.

- b. The short-term emission limitations outlined above are based upon the emission unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.
- c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the short-term emissions limitations, compliance with the rolling, 12-month emissions limitations, compliance with the rolling, 12-month operating hours limitation, compliance with the visible emissions limitation, and compliance with the diesel fuel sulfur content limitation.

c) Operational Restrictions

- (1) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit. The maximum annual operating hours for this emissions unit shall not exceed 420 hours, based upon a rolling, 12-month summation of the operating hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. The operating hours for each month;
 - b. The updated rolling, 12-month summation of the operating hours for the current month and the preceding eleven calendar months;
 - c. The NO_x, CO, SO₂, PE/PM₁₀, and VOC emissions for each month, in tons [the short-term emission rate (or rates, if the turbine is fired at varying loads and/or fuel inputs in MMBtu/hour) for each pollutant in pounds per hour, multiplied by the actual operating hours as recorded in d)(1)b. for each load/rate, and divided by 2000 pounds]; and
 - d. The updated rolling, 12-month summation of the NO_x, SO₂, CO, PE/PM₁₀ and VOC emissions for the current month and the preceding eleven calendar months.
- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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 D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling, 12-month operating hours operational restriction; and
 - ii. the rolling, 12-month NO_x, CO, SO₂, PE/PM₁₀, and/or VOC emissions limitations.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.



The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (4) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record which shows a deviation of the allowable sulfur dioxide limitation based upon the calculated sulfur dioxide emission rates from d)(2) above. 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.

f) **Testing Requirements**

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

- a. **Emissions Limitations:**

Emissions of nitrogen oxide (NO_x) shall not exceed 94.5 pounds per hour.

Emissions of carbon monoxide (CO) shall not exceed 0.4 pound per hour.

Emissions of sulfur dioxide (SO₂) shall not exceed 14.1 pounds per hour.

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM₁₀) shall not exceed 0.5 pound per hour.

Emissions of volatile organic compounds (VOC) shall not exceed 0.4 pound per hour.

Applicable Compliance Methods:

If required, compliance with the short-term mass emissions limitations may be demonstrated by emission testing employing the following test Methods of 40 CFR Part 60, Appendix A: for NO_x, Method 7 or Method 20; for CO, Method 10; for SO₂, Method 6; for PE/PM₁₀ Methods 5 and 201; for VOC, Method 25. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

In the absence of site-specific emissions data, compliance with the emissions limitations shall be demonstrated by calculating the emissions using the diesel fuel Emission Factors (EF) from the Fifth Edition of AP-42, published 4/00, Tables 3.1-1 and 3.1-2a in the following equation for each pollutant:

actual fuel input, million Btus per hour x AP-42 EF pounds of pollutant per million Btu = pounds of pollutant per hour

Emissions should be calculated for each varying fuel input rate/load condition, as applicable.



b. Emissions Limitations:

Emissions of NO_x shall not exceed 19.85 tons per year (TPY), based on a rolling, 12-month summation.

Emissions of CO shall not exceed 0.07 TPY, based on a rolling, 12-month summation.

Emissions of SO₂ shall not exceed 2.96 TPY, based on a rolling, 12-month summation.

Emissions of PE/PM₁₀ shall not exceed 0.10 TPY, based on a rolling, 12-month summation.

Emissions of VOC shall not exceed 0.09 TPY, based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the rolling, 12-month emissions limitations shall be demonstrated by the recordkeeping requirements in section d)(1).

c. Emissions Limitation:

SO₂ emissions shall not exceed 0.1313 pound per million Btu of actual heat input

Applicable Compliance Method:

Compliance with the SO₂ emissions limitation shall be demonstrated by the method outlined in OAC rule 3745-18-04(F)(2) in the following calculation:

$$ER = (1 \times 106)/H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of sulfur dioxide per MM Btu;

H = the heat content of the liquid fuel in Btu per gallon;

D = the density of the liquid fuel in pounds per gallon; and

S = the decimal fraction of sulfur in the liquid fuel.

d. Emissions Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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



Final Permit-to-Install and Operate

City of Lebanon

Permit Number: P0117944

Facility ID: 1483060000

Effective Date: 12/4/2014

g) Miscellaneous Requirements

(1) None.



2. B008, Gas Turbine #1

Operations, Property and/or Equipment Description:

12500 KW GE Turbine for Electric Generation (Unit No. 2) with water injection system

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)b., c)(1), d)(1), d)(2), and e)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions of nitrogen oxide (NOx) shall not exceed 84.1 pounds per hour. Emissions of carbon monoxide (CO) shall not exceed 14.4 pound per hour. Emissions of sulfur dioxide (SO2) shall not exceed 57.3 pounds per hour. Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.8 pound per hour. Emissions of volatile organic compounds (VOC) shall not exceed 0.8 pound per hour. See b)(2)a.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, OAC rule 3745-31-05(D), and OAC rule 3745-17-07(A).</p>
b.	OAC rule 3745-31-05(D)	<p>Emissions of NOx shall not exceed 17.66 tons per year (TPY), based on a rolling, 12-month summation.</p> <p>Emissions of CO shall not exceed 3.02 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of SO2 shall not exceed 12.03 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of PE/PM10 shall not exceed 0.17 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of VOC shall not exceed 0.16 TPY, based on a rolling, 12-month summation.</p> <p>See b)(2)b. and c)(1).</p>
c.	OAC rule 3745-17-07(A)(1)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.</p>
d.	OAC rule 3745-17-11(B)(4)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
e.	OAC rule 3745-18-06(F)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
f.	<p>40 CFR Part 60, Subpart GG (40 CFR 60.330 – 60.335)</p> <p>[In accordance with 40 CFR 60.330, this emissions unit is a stationary gas turbine with a heat input at peak load equal to or greater than 10.7</p>	<p>No owner or operator subject to the provisions of 40 CFR Part 60, Subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxide in excess of 75 ppmv at 15% oxygen and on a dry basis as calculated</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.]	using the formula in 60.332(a)(1). The sulfur content limitation specified by this rule is less stringent than the sulfur content limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The SO₂ emissions shall not exceed 0.303 pound per million Btu of actual heat input. The quality of the fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.303 pound per million Btu of actual heat input. The permittee shall not burn any fuel in the combustion turbine which contains sulfur in excess of 0.30 percent by weight.
- b. The permittee shall employ a water injection system for NO_x emission control.
- c. The permittee is exempt from using the water injection system for the control of NO_x emissions when ice fog is deemed a traffic hazard. Ice fog means an atmospheric suspension of highly reflective ice crystals.
- d. The short-term emission limitations outlined above are based upon the emission unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.
- e. 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.
- f. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a water injection system for NO_x emission control, compliance with the short-term emissions limitations, compliance with the rolling, 12-month emissions limitations, compliance with the rolling, 12-month operating hours limitation, compliance with the diesel fuel sulfur content limitation, compliance with the requirements of 40 CFR Part 60, Subpart GG for combustion turbines, and compliance with the visible emissions limitation.

c) Operational Restrictions

- (1) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit. The maximum annual operating hours for this emissions unit shall not exceed 420 hours, based upon a rolling, 12-month summation of the operating hours.



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

- (1) The permittee shall maintain monthly records of the following information:
 - a. The operating hours for each month;
 - b. The updated rolling, 12-month summation of the operating hours for the current month and the preceding eleven calendar months;
 - c. The NO_x, CO, SO₂, PE/PM₁₀, and VOC emissions for each month, in tons [the short-term emission rate (or rates, if the turbine is fired at varying loads and/or fuel inputs in MMBtu/hour) for each pollutant in pounds per hour, multiplied by the actual operating hours as recorded in d)(1)b. for each load/rate, and divided by 2000 pounds]; and
 - d. The updated rolling, 12-month summation of the NO_x, SO₂, CO, PE/PM₁₀ and VOC emissions for the current month and the preceding eleven calendar months.
- (2) The permittee shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired into the turbine. This system shall be accurate to +/- 5.0 percent and shall be approved by the Director.
- (3) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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 D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

e) **Reporting Requirements**

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



Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling, 12-month operating hours operational restriction;
 - ii. the rolling, 12-month NO_x, CO, SO₂, PE/PM₁₀, and/or VOC emissions limitations; and
 - iii. the requirement to operate and monitor a water injection system for NO_x emission control where the monitoring system of the water to fuel ratio shall be accurate to +/- 5.0 percent.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (4) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record which shows a deviation of the allowable sulfur content and/or sulfur dioxide limitation based upon the calculated sulfur dioxide emission rates from d)(3) above. 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.



f) Testing Requirements

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

a. Emissions Limitations:

Emissions of nitrogen oxide (NO_x) shall not exceed 84.1 pounds per hour.

Emissions of carbon monoxide (CO) shall not exceed 14.4 pound per hour.

Emissions of sulfur dioxide (SO₂) shall not exceed 57.3 pounds per hour.

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM₁₀) shall not exceed 0.8 pound per hour.

Emissions of volatile organic compounds (VOC) shall not exceed 0.8 pound per hour.

Applicable Compliance Methods:

If required, compliance with the short-term mass emissions limitations may be demonstrated by emission testing employing the following test Methods of 40 CFR Part 60, Appendix A: for NO_x, Method 7 or Method 20; for CO, Method 10; for SO₂, Method 6; for PE/PM₁₀ Methods 5 and 201; for VOC, Method 25. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

In the absence of site-specific emissions data, compliance with the emissions limitations shall be demonstrated by calculating the emissions using the diesel fuel Emission Factors (EF) from the Fifth Edition of AP-42, published 4/00, Tables 3.1-1 and 3.1-2a in the following equation for each pollutant:

actual fuel input, million Btus per hour x AP-42 EF pounds of pollutant per million Btu = pounds of pollutant per hour

Emissions should be calculated for each varying fuel input rate/load condition, as applicable.

b. Emissions Limitations:

Emissions of NO_x shall not exceed 17.66 tons per year (TPY), based on a rolling, 12-month summation.

Emissions of CO shall not exceed 3.02 TPY, based on a rolling, 12-month summation.

Emissions of SO₂ shall not exceed 12.03 TPY, based on a rolling, 12-month summation.



Emissions of PE/PM10 shall not exceed 0.17 TPY, based on a rolling, 12-month summation.

Emissions of VOC shall not exceed 0.16 TPY, based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the rolling, 12-month emissions limitations shall be demonstrated by the recordkeeping requirements in section d)(1).

c. Emissions Limitation:

SO2 emissions shall not exceed 0.303 pound per million Btu of actual heat input

Applicable Compliance Method:

Compliance with the SO2 emissions limitation shall be demonstrated by the method outlined in OAC rule 3745-18-04(F)(2) in the following calculation:

$$ER = (1 \times 106)/H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of sulfur dioxide per MM Btu;

H = the heat content of the liquid fuel in Btu per gallon;

D = the density of the liquid fuel in pounds per gallon; and

S = the decimal fraction of sulfur in the liquid fuel.

d. Emissions Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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

e. Emissions Limitation:

No owner or operator subject to the provisions of 40 CFR Part 60, Subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxide in excess of 75 ppmv at 15% oxygen and on a dry basis as calculated using the formula in 60.332(a)(1).



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Applicable Compliance Method:

If required, compliance with the emissions concentration requirement may be demonstrated by emission testing employing either Method 7 or Method 20 and the standards outlined in 40 CFR Part 60.335.

g) Miscellaneous Requirements

- (1) None.



3. P002, Generator Unit No. 8

Operations, Property and/or Equipment Description:

5600 KW Cooper Bessemer diesel fuel engine for Electric Generation (Unit # 8)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)b., c)(1), d)(1), and e)(3).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions of nitrogen oxide (NOx) shall not exceed 171.1 pounds per hour. Emissions of carbon monoxide (CO) shall not exceed 45.5 pound per hour. Emissions of sulfur dioxide (SO2) shall not exceed 7.0 pounds per hour. Particulate emissions (PE) shall not exceed 3.3 pounds per hour. Emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 3.1 pound per hour. Emissions of volatile organic compounds (VOC) shall not exceed 4.8 pound per hour.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-07(A).</p>
b.	OAC rule 3745-31-05(D)	<p>Emissions of NOx shall not exceed 17.11 tons per year (TPY), based on a rolling, 12-month summation.</p> <p>Emissions of CO shall not exceed 4.55 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of SO2 shall not exceed 0.70 TPY, based on a rolling, 12-month summation.</p> <p>PE shall not exceed 0.33 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of PM10 shall not exceed 0.31 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of VOC shall not exceed 0.48 TPY, based on a rolling, 12-month summation.</p> <p>See c)(1).</p>
c.	OAC rule 3745-17-07(A)(1)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.</p>
d.	OAC rule 3745-17-11(B)(5)(b)	<p>PE from this emissions unit shall not exceed 0.062 pound per million Btu of actual heat input.</p>
e.	OAC rule 3745-18-06(G)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>



(2) Additional Terms and Conditions

- a. The SO₂ emissions shall not exceed 0.1313 pound per million Btu of actual heat input. The quality of the fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.1313 pound per million Btu of actual heat input.
- b. The short-term emission limitations outlined above are based upon the emission unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.
- c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the short-term emissions limitations, compliance with the rolling, 12-month emissions limitations, compliance with the rolling, 12-month operating hours limitation, compliance with the visible emissions limitation, and compliance with the diesel fuel sulfur content limitation.

c) Operational Restrictions

- (1) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit. The maximum annual operating hours for this emissions unit shall not exceed 200 hours, based upon a rolling, 12-month summation of the operating hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. The operating hours for each month;
 - b. The updated rolling, 12-month summation of the operating hours for the current month and the preceding eleven calendar months;
 - c. The NO_x, CO, SO₂, PE/PM₁₀, and VOC emissions for each month, in tons [the short-term emission rate (or rates, if the engine is fired at varying loads and/or fuel inputs in MMBtu/hour) for each pollutant in pounds per hour, multiplied by the actual operating hours as recorded in d)(1)b. for each load/rate, and divided by 2000 pounds]; and
 - d. The updated rolling, 12-month summation of the NO_x, SO₂, CO, PE/PM₁₀ and VOC emissions for the current month and the preceding eleven calendar months.
- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same



supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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 D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling, 12-month operating hours operational restriction; and
 - ii. the rolling, 12-month NO_x, CO, SO₂, PE/PM₁₀, and/or VOC emissions limitations.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and



- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (4) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record which shows a deviation of the allowable sulfur content and/or sulfur dioxide limitation based upon the calculated sulfur dioxide emission rates from d)(2) above. 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.

f) **Testing Requirements**

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

- a. **Emissions Limitations:**

Emissions of nitrogen oxide (NO_x) shall not exceed 171.1 pounds per hour.

Emissions of carbon monoxide (CO) shall not exceed 45.5 pound per hour.

Emissions of sulfur dioxide (SO₂) shall not exceed 7.0 pounds per hour.

Particulate emissions (PE) shall not exceed 3.3 pounds per hour.

Emissions of particulate matter 10 microns and less in diameter (PM₁₀) shall not exceed 3.1 pound per hour.

Emissions of volatile organic compounds (VOC) shall not exceed 4.8 pound per hour.

Applicable Compliance Methods:

If required, compliance with the short-term mass emissions limitations may be demonstrated by emission testing employing the following test Methods of 40 CFR Part 60, Appendix A: for NO_x, Method 7 or Method 20; for CO, Method 10; for SO₂, Method 6; for PE/PM₁₀ Methods 5 and 201; for VOC, Method 25. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

In the absence of site-specific emissions data, compliance with the emissions limitations shall be demonstrated by calculating the emissions using the diesel



fuel Emission Factors (EF) from the Fifth Edition of AP-42, published 10/96, Tables 3.4-1 and 3.4-2 in the following equation for each pollutant:

actual fuel input, million Btus per hour x AP-42 EF pounds of pollutant per million Btu = pounds of pollutant per hour

Emissions should be calculated for each varying fuel input rate/load condition, as applicable.

b. Emissions Limitations:

Emissions of NOx shall not exceed 17.11 tons per year (TPY), based on a rolling, 12-month summation.

Emissions of CO shall not exceed 4.55 TPY, based on a rolling, 12-month summation.

Emissions of SO2 shall not exceed 0.70 TPY, based on a rolling, 12-month summation.

PE shall not exceed 0.33 TPY, based on a rolling, 12-month summation.

Emissions of PM10 shall not exceed 0.31 TPY, based on a rolling, 12-month summation.

Emissions of VOC shall not exceed 0.48 TPY, based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the rolling, 12-month emissions limitations shall be demonstrated by the recordkeeping requirements in section d)(1).

c. Emissions Limitation:

SO2 emissions shall not exceed 0.1313 pound per million Btu of actual heat input

Applicable Compliance Method:

Compliance with the SO2 emissions limitation shall be demonstrated by the method outlined in OAC rule 3745-18-04(F)(2) in the following calculation:

$$ER = (1 \times 106)/H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of sulfur dioxide per MM Btu;

H = the heat content of the liquid fuel in Btu per gallon;

D = the density of the liquid fuel in pounds per gallon; and

S = the decimal fraction of sulfur in the liquid fuel.



d. Emissions Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.



4. P005, Generator Unit No. 5

Operations, Property and/or Equipment Description:

2000 KW Cooper Bessemer Diesel Engine for Electric Generation (Unit No. 5)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)b., c)(1), d)(1), and e)(3).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions of nitrogen oxide (NOx) shall not exceed 57.3 pounds per hour. Emissions of carbon monoxide (CO) shall not exceed 15.2 pound per hour. Emissions of sulfur dioxide (SO2) shall not exceed 2.4 pounds per hour. Particulate emissions (PE) shall not exceed 1.1 pounds per hour. Emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 1.0 pound per hour. Emissions of volatile organic compounds (VOC) shall not exceed 1.6 pounds per hour.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-07(A).</p>
b.	OAC rule 3745-31-05(D)	<p>Emissions of NO_x shall not exceed 9.16 tons per year (TPY), based on a rolling, 12-month summation.</p> <p>Emissions of CO shall not exceed 2.43 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of SO₂ shall not exceed 0.38 TPY, based on a rolling, 12-month summation.</p> <p>PE shall not exceed 0.18 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of PM₁₀ shall not exceed 0.16 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of VOC shall not exceed 0.26 TPY, based on a rolling, 12-month summation.</p> <p>See c)(1).</p>
c.	OAC rule 3745-17-07(A)(1)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.</p>
d.	OAC rule 3745-17-11(B)(5)(b)	<p>PE from this emissions unit shall not exceed 0.062 pound per million Btu of actual heat input.</p>
e.	OAC rule 3745-18-06(G)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>



(2) Additional Terms and Conditions

- a. The SO₂ emissions shall not exceed 0.1313 pound per million Btu of actual heat input. The quality of the fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.1313 pound per million Btu of actual heat input.
- b. The short-term emission limitations outlined above are based upon the emission unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.
- c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the short-term emissions limitations, compliance with the rolling, 12-month emissions limitations, compliance with the rolling, 12-month operating hours limitation, compliance with the visible emissions limitation, and compliance with the diesel fuel sulfur content limitation.

c) Operational Restrictions

- (1) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit. The maximum annual operating hours for this emissions unit shall not exceed 200 hours, based upon a rolling, 12-month summation of the operating hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. The operating hours for each month;
 - b. The updated rolling, 12-month summation of the operating hours for the current month and the preceding eleven calendar months;
 - c. The NO_x, CO, SO₂, PE/PM₁₀, and VOC emissions for each month, in tons [the short-term emission rate (or rates, if the engine is fired at varying loads and/or fuel inputs in MMBtu/hour) for each pollutant in pounds per hour, multiplied by the actual operating hours as recorded in d)(1)b. for each load/rate, and divided by 2000 pounds]; and
 - d. The updated rolling, 12-month summation of the NO_x, SO₂, CO, PE/PM₁₀ and VOC emissions for the current month and the preceding eleven calendar months.
- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same



supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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 D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling, 12-month operating hours operational restriction; and
 - ii. the rolling, 12-month NO_x, CO, SO₂, PE/PM₁₀, and/or VOC emissions limitations.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and



- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (4) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record which shows a deviation of the allowable sulfur content and/or sulfur dioxide limitation based upon the calculated sulfur dioxide emission rates from d)(2) above. 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.

f) **Testing Requirements**

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

- a. **Emissions Limitations:**

Emissions of nitrogen oxide (NO_x) shall not exceed 57.3 pounds per hour.

Emissions of carbon monoxide (CO) shall not exceed 15.2 pound per hour.

Emissions of sulfur dioxide (SO₂) shall not exceed 2.4 pounds per hour.

Particulate emissions (PE) shall not exceed 1.1 pounds per hour.

Emissions of particulate matter 10 microns and less in diameter (PM₁₀) shall not exceed 1.0 pound per hour.

Emissions of volatile organic compounds (VOC) shall not exceed 1.6 pounds per hour.

Applicable Compliance Methods:

If required, compliance with the short-term mass emissions limitations may be demonstrated by emission testing employing the following test Methods of 40 CFR Part 60, Appendix A: for NO_x, Method 7 or Method 20; for CO, Method 10; for SO₂, Method 6; for PE/PM₁₀ Methods 5 and 201; for VOC, Method 25. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

In the absence of site-specific emissions data, compliance with the emissions limitations shall be demonstrated by calculating the emissions using the diesel



fuel Emission Factors (EF) from the Fifth Edition of AP-42, published 10/96, Tables 3.4-1 and 3.4-2 in the following equation for each pollutant:

actual fuel input, million Btus per hour x AP-42 EF pounds of pollutant per million Btu = pounds of pollutant per hour

Emissions should be calculated for each varying fuel input rate/load condition, as applicable.

b. Emissions Limitations:

Emissions of NO_x shall not exceed 9.16 tons per year (TPY), based on a rolling, 12-month summation.

Emissions of CO shall not exceed 2.43 TPY, based on a rolling, 12-month summation.

Emissions of SO₂ shall not exceed 0.38 TPY, based on a rolling, 12-month summation.

PE shall not exceed 0.18 TPY, based on a rolling, 12-month summation.

Emissions of PM₁₀ shall not exceed 0.16 TPY, based on a rolling, 12-month summation.

Emissions of VOC shall not exceed 0.26 TPY, based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the rolling, 12-month emissions limitations shall be demonstrated by the recordkeeping requirements in section d)(1).

c. Emissions Limitation:

SO₂ emissions shall not exceed 0.1313 pound per million Btu of actual heat input

Applicable Compliance Method:

Compliance with the SO₂ emissions limitation shall be demonstrated by the method outlined in OAC rule 3745-18-04(F)(2) in the following calculation:

$$ER = (1 \times 106)/H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of sulfur dioxide per MM Btu;

H = the heat content of the liquid fuel in Btu per gallon;

D = the density of the liquid fuel in pounds per gallon; and

S = the decimal fraction of sulfur in the liquid fuel.



d. Emissions Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.



5. P006, Generator Unit No. 6

Operations, Property and/or Equipment Description:

3500 KW Cooper Bessemer Diesel Engine for Electric Generation (Unit No. 6)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)b., c)(1), d)(1), and e)(3).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions of nitrogen oxide (NOx) shall not exceed 90.3 pounds per hour. Emissions of carbon monoxide (CO) shall not exceed 24.0 pound per hour. Emissions of sulfur dioxide (SO2) shall not exceed 3.7 pounds per hour. Particulate emissions (PE) shall not exceed 1.7 pounds per hour. Emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 1.6 pound per hour. Emissions of volatile organic compounds (VOC) shall not exceed 2.5 pound per hour.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-07(A).</p>
b.	OAC rule 3745-31-05(D)	<p>Emissions of NO_x shall not exceed 14.45 tons per year (TPY), based on a rolling, 12-month summation.</p> <p>Emissions of CO shall not exceed 3.84 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of SO₂ shall not exceed 0.59 TPY, based on a rolling, 12-month summation.</p> <p>PE shall not exceed 0.28 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of PM₁₀ shall not exceed 0.26 TPY, based on a rolling, 12-month summation.</p> <p>Emissions of VOC shall not exceed 0.41 TPY, based on a rolling, 12-month summation.</p> <p>See c)(1).</p>
c.	OAC rule 3745-17-07(A)(1)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.</p>
d.	OAC rule 3745-17-11(B)(5)(b)	<p>PE from this emissions unit shall not exceed 0.062 pound per million Btu of actual heat input.</p>
e.	OAC rule 3745-18-06(G)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>



(2) Additional Terms and Conditions

- a. The SO₂ emissions shall not exceed 0.1313 pound per million Btu of actual heat input. The quality of the fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.1313 pound per million Btu of actual heat input.
- b. The short-term emission limitations outlined above are based upon the emission unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.
- c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the short-term emissions limitations, compliance with the rolling, 12-month emissions limitations, compliance with the rolling, 12-month operating hours limitation, compliance with the visible emissions limitation, and compliance with the diesel fuel sulfur content limitation.

c) Operational Restrictions

- (1) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit. The maximum annual operating hours for this emissions unit shall not exceed 200 hours, based upon a rolling, 12-month summation of the operating hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. The operating hours for each month;
 - b. The updated rolling, 12-month summation of the operating hours for the current month and the preceding eleven calendar months;
 - c. The NO_x, CO, SO₂, PE/PM₁₀, and VOC emissions for each month, in tons [the short-term emission rate (or rates, if the engine is fired at varying loads and/or fuel inputs in MMBtu/hour) for each pollutant in pounds per hour, multiplied by the actual operating hours as recorded in d)(1)b. for each load/rate, and divided by 2000 pounds]; and
 - d. The updated rolling, 12-month summation of the NO_x, SO₂, CO, PE/PM₁₀ and VOC emissions for the current month and the preceding eleven calendar months.
- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same



supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

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 D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling, 12-month operating hours operational restriction; and
 - ii. the rolling, 12-month NO_x, CO, SO₂, PE/PM₁₀, and/or VOC emissions limitations.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and



- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (4) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record which shows a deviation of the allowable sulfur content and/or sulfur dioxide limitation based upon the calculated sulfur dioxide emission rates from d)(2) above. 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.

f) Testing Requirements

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

- a. Emissions Limitations:

Emissions of nitrogen oxide (NO_x) shall not exceed 90.3 pounds per hour.

Emissions of carbon monoxide (CO) shall not exceed 24.0 pound per hour.

Emissions of sulfur dioxide (SO₂) shall not exceed 3.7 pounds per hour.

Particulate emissions (PE) shall not exceed 1.7 pounds per hour.

Emissions of particulate matter 10 microns and less in diameter (PM₁₀) shall not exceed 1.6 pound per hour.

Emissions of volatile organic compounds (VOC) shall not exceed 2.5 pound per hour.

Applicable Compliance Methods:

If required, compliance with the short-term mass emissions limitations may be demonstrated by emission testing employing the following test Methods of 40 CFR Part 60, Appendix A: for NO_x, Method 7 or Method 20; for CO, Method 10; for SO₂, Method 6; for PE/PM₁₀ Methods 5 and 201; for VOC, Method 25. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

In the absence of site-specific emissions data, compliance with the emissions limitations shall be demonstrated by calculating the emissions using the diesel



fuel Emission Factors (EF) from the Fifth Edition of AP-42, published 10/96, Tables 3.4-1 and 3.4-2 in the following equation for each pollutant:

actual fuel input, million Btus per hour x AP-42 EF pounds of pollutant per million Btu = pounds of pollutant per hour

Emissions should be calculated for each varying fuel input rate/load condition, as applicable.

b. Emissions Limitations:

Emissions of NOx shall not exceed 14.45 tons per year (TPY), based on a rolling, 12-month summation.

Emissions of CO shall not exceed 3.84 TPY, based on a rolling, 12-month summation.

Emissions of SO2 shall not exceed 0.59 TPY, based on a rolling, 12-month summation.

PE shall not exceed 0.28 TPY, based on a rolling, 12-month summation.

Emissions of PM10 shall not exceed 0.26 TPY, based on a rolling, 12-month summation.

Emissions of VOC shall not exceed 0.41 TPY, based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the rolling, 12-month emissions limitations shall be demonstrated by the recordkeeping requirements in section d)(1).

c. Emissions Limitation:

SO2 emissions shall not exceed 0.1313 pound per million Btu of actual heat input

Applicable Compliance Method:

Compliance with the SO2 emissions limitation shall be demonstrated by the method outlined in OAC rule 3745-18-04(F)(2) in the following calculation:

$$ER = (1 \times 106)/H \times D \times S \times 1.974$$

where: ER = the emission rate in pounds of sulfur dioxide per MM Btu;

H = the heat content of the liquid fuel in Btu per gallon;

D = the density of the liquid fuel in pounds per gallon; and

S = the decimal fraction of sulfur in the liquid fuel.



d. Emissions Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.