



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

9/14/2016

Genevieve Damico *Via E-Mail Notification*
United States Environmental Protection Agency
Mail Code: AR-18J
77 West Jackson Blvd.
Chicago, IL 60604-3507

RE: PROPOSED AIR POLLUTION TITLE V PERMIT
Facility Name: Duke Energy Kentucky, Woodsdale Generating Station
Facility ID: 1409120656
Permit Type: Renewal
Permit Number: P0119490

Dear Ms. Damico:

A proposed OAC Chapter 3745-77 Title V permit for the referenced facility has been issued for review by U.S. EPA. This permit can be accessed electronically 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 U.S. EPA does not object to this proposed permit, the permit will be processed for issuance as a final action not less than 45 days from the date of this letter. Please contact me at (614) 644-2835 by the end of the 45 day review period if you wish to object to the proposed permit.

Sincerely,

A handwritten signature in black ink that reads "Michael E. Hopkins".

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: Southwest Ohio Air Quality Agency



PROPOSED

Division of Air Pollution Control Title V Permit

for

Duke Energy Kentucky, Woodsdale Generating Station

Facility ID:	1409120656
Permit Number:	P0119490
Permit Type:	Renewal
Issued:	9/14/2016
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
Duke Energy Kentucky, Woodsdale Generating Station

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Proposed Title V Permit
Duke Energy Kentucky, Woodsdale Generating Station
Permit Number: P0119490
Facility ID: 1409120656
Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1409120656
Facility Description: Electric generation utility
Application Number(s): A0054024
Permit Number: P0119490
Permit Description: Title V Operating Permit Renewal for electric generating utility, consisting of six combustion turbines and LPG vaporizing boilers.
Permit Type: Renewal
Issue Date: 9/14/2016
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0104674

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Duke Energy Kentucky, Woodsdale Generating Station
2100 Woodsdale Road
Trenton, OH 45067-0000

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

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

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Southwest Ohio Air Quality Agency. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Proposed Title V Permit
Duke Energy Kentucky, Woodsdale Generating Station
Permit Number: P0119490
Facility ID: 1409120656
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- 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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))



c) The permittee shall submit required reports in the following manner:

- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the



probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Southwest Ohio Air Quality Agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Southwest Ohio Air Quality Agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable

requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Southwest Ohio Air Quality Agency unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. 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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.



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

- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

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

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible

Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Southwest Ohio Air Quality Agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Southwest Ohio Air Quality Agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.
 - b. The permittee's current compliance status.



- c. Whether compliance was continuous or intermittent consistent with A.13.d.2.a above.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.
 - e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

- a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Southwest Ohio Air Quality Agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Southwest Ohio Air Quality Agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)



19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible Official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:



- a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the Southwest Ohio Air Quality Agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Southwest Ohio Air Quality Agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine



whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Southwest Ohio Air Quality Agency in accordance with paragraph (B) of OAC rule 3745-15-06. 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Southwest Ohio Air Quality Agency must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.



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30. Submitting Documents Required by this Permit

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 Southwest Ohio Air Quality 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 Responsible Official may be represented as provided through procedures established in Air Services.



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B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

a) None.

2. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit-to-install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP approved versions of OAC Chapters 3745-17, 3745-18, 3745-21, and 3745-31, and/or 40 CFR Part 60 or 63:

EU ID	Operations, Property and/or Equipment Description
B025	Combustion turbine black start unit (PTI 14-1984)
B026	Diesel fire pump (PTI 14-2179)
G001	Gasoline dispensing operation (PTI 14-2520)
L001	Non-halogenated solvent cold parts cleaner (PTI 14-2954)
P001	Emergency diesel generator #1 (PBR09906)
P002	Emergency diesel generator #2 (PBR09906)

(Authority for term: OAC rule 3745-77-07(A)(13))

3. The permittee shall ensure that any CAIR NO_x, SO₂, or NO_x ozone season units complies with the requirements of OAC 3745-109, which includes submitting timely permit applications. The permittee shall ensure that the affected emissions units comply with those requirements as outlined in the permit application submitted as required by OAC rules 3745-109-03, 109-10 and 109-16 for the affected emissions units.

The permittee shall also comply with any subsequent federally mandated programs that may replace the CAIR program affecting electric generating facilities.

Note: Ohio EPA DAPC has completed proposed rule amendments for OAC chapter 3745-14, specifically, OAC rule 3745-14-01 and OAC rule 3745-14-06, which facilitated the transition of the affected units from OAC chapter 3745-14 into the federal Clean Air Interstate Rule (CAIR) program which began with the 2009 control periods. This began the process of “sunsetting” the parts of OAC chapter 3745-14 which were no longer needed as a result of Ohio’s CAIR rules (OAC chapter 3745-109).

(Authority for term: OAC rules 3745-77-07(A)(5) and 3745-109)

4. Transport Rule (TR) Trading Program Requirements

a) The permittee shall comply with all applicable Cross-State Air Pollution Rule (CSAPR) requirements (40 CFR Part 97, Subparts AAAAA – DDDDD) by the compliance date specified in 40 CFR 97, Subparts AAAAA – DDDDD.

b) The TR subject units, and the unit-specific monitoring provisions at this source, are identified in the following table. These units are subject to the requirements for the TR NO_x Annual Trading Program and TR NO_x Ozone Season Trading Program.



Unit ID: B001 1034 MMBtu/Hr simple-cycle combustion turbine No. 1 B002 1034 MMBtu/Hr simple-cycle combustion turbine No. 2 B003 1034 MMBtu/Hr simple-cycle combustion turbine No. 3 B004 1034 MMBtu/Hr simple-cycle combustion turbine No. 4 B005 1034 MMBtu/Hr simple-cycle combustion turbine No. 5 B006 1034 MMBtu/Hr simple-cycle combustion turbine No. 6					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO ₂ monitoring) and 40 CFR part 75, subpart H (for NO _x monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
SO ₂					
NO _x	x				
Heat input					

- c) The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (TR NO_x Annual Trading Program), and 97.530 through 97.535 (TR NO_x Ozone Season Trading Program), as applicable. The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable TR trading programs.
- d) Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at <http://www.epa.gov/airmarkets/emissions/monitoringplans.html>.
- e) Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (TR NO_x Annual Trading Program), and 97.535 (TR NO_x Ozone Season Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>



- f) Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (TR NOx Annual Trading Program), and 97.530 through 97.534 (TR NOx Ozone Season Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (TR NOx Annual Trading Program), and 97.535 (TR NOx Ozone Season Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on EPA's website at <http://www.epa.gov/airmarkets/emissions/petitions.html>.
- g) The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (TR NOx Annual Trading Program), 97.530 through 97.534 (TR NOx Ozone Season Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add to or change this unit's monitoring system description.
- h) TR NOx Annual Trading Program requirements

Designated representative requirements	97.406(a), 97.413-97.418
Emissions monitoring, reporting and recordkeeping requirements	97.406(b), 97.430-97.435
NOx emissions requirements	97.406(c)
Title V permit revision requirements	97.406(d)
Additional recordkeeping and reporting requirements	97.406(e)
Liability	97.406(f)
Effect on other authorities	97.406(g)

- i) TR NOx Ozone Season Trading Program requirements

Designated representative requirements	97.506(a), 97.513-97.518
Emissions monitoring, reporting and recordkeeping requirements	97.506(b), 97.530-97.535
NOx emissions requirements	97.506(c)
Title V permit revision requirements	97.506(d)
Additional recordkeeping and reporting requirements	97.506(e)
Liability	97.506(f)
Effect on other authorities	97.506(g)

(Authority for term: 40 CFR Part 97)

5. Acid Rain Permits and Compliance – 40 CFR Part 72, 40 CFR Part 75, and OAC Chapter 3745-103

The permittee shall ensure that any affected emissions unit complies with the requirements of 40 CFR Part 72, 40 CFR Part 75, and OAC Chapter 3745-103, which includes submitting timely permit applications. Emissions exceeding any allowances that are lawfully held pursuant to these rules are prohibited.

(Authority for term: 40 CFR Part 72, 40 CFR Part 75, and OAC rule 3745-103)



6. **All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR Part 61, Subpart M, and OAC Chapter 3745-20.**

(Authority for term: 40 CFR Part 61, Subpart M, and OAC rule 3745-20-02)

7. The facility is subject to the applicable requirements specified in OAC Chapter 3745-25 for Ambient Air Quality Emergency Episodes. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-04, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.

(Authority for term: OAC Chapter 3745-25)

8. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subparts A and GG, Standards of Performance for Stationary Gas Turbines (NSPS): B001 - B006. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

(Authority for term: 40 CFR Part 60)

9. The following insignificant emissions units above are subject to 40 CFR Part 63, Subparts A and ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines: B025, B026, P001, and P002. At this time the Ohio EPA is not accepting the delegating authority to enforce NESHAP standards for area sources. The requirements of this rule, that are applicable to the area source(s) (for hazardous air pollutants) identified in this permit, shall be enforceable by U.S. EPA, Region 5. The complete requirements of this 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.

(Authority for term: 40 CFR Part 63)

10. The following abbreviations are used throughout this permit:

NO_x = Nitrogen oxides

CO = Carbon monoxide

VOC = Volatile organic compounds

PE = Particulate emissions as measured by the applicable test methods in 40 CFR Part 60, Appendix A, "Standards of Performance for New Stationary Sources"

PM₁₀ = Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix J and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53

SO₂ = Sulfur dioxide



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TPY = Tons per year

MMBtu = Million British thermal units

LPG = liquefied petroleum gas (propane)

PTI = Permit to Install

CFR = Code of Federal Regulations

OAC = Ohio Administrative Code

ORC = Ohio Revised Code



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C. Emissions Unit Terms and Conditions



1. Emissions Unit Group - Combustion Turbines: B001, B002, B003, B004, B005, and B006

EU ID	Operations, Property and/or Equipment Description
B001	1034 MMBtu/hr simple cycle combustion turbine w/low NOx burner and water injection, capable of firing natural gas, LPG, and fuel oil
B002	1034 MMBtu/hr simple cycle combustion turbine w/low NOx burner and water injection, capable of firing natural gas, LPG, and fuel oil
B003	1034 MMBtu/hr simple cycle combustion turbine w/low NOx burner and water injection, capable of firing natural gas, LPG, and fuel oil
B004	1034 MMBtu/hr simple cycle combustion turbine w/low NOx burner and water injection, capable of firing natural gas, LPG, and fuel oil
B005	1034 MMBtu/hr simple cycle combustion turbine w/low NOx burner and water injection, capable of firing natural gas, LPG, and fuel oil
B006	1034 MMBtu/hr simple cycle combustion turbine w/low NOx burner and water injection, capable of firing natural gas, LPG, and fuel oil

For purposes of clarification, b) through g) below are applicable to each of the emissions units listed above on an individual basis.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-11 through 3745-31-20; and 40 CFR Part 52.21 Attainment Provisions for Prevention of Significant Deterioration (PSD) [PTI 14-1905, issued 6/20/1990, and last modified 6/24/1994]	<u>NOx emissions shall not exceed the following for each emissions unit:</u> 261.4 pounds per hour of NOx*; when burning natural gas, NOx emissions shall not exceed 42 ppm by volume, at 15% oxygen, on a dry basis; and when burning LPG or fuel oil, NOx emissions shall not exceed 65 ppm by volume, at 15% oxygen, on a dry basis. <u>SO₂ emissions shall not exceed the</u>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><u>following for each emissions unit:</u></p> <p>516.0 pounds per hour of SO₂;</p> <p>when burning natural gas or LPG, SO₂ emissions shall not exceed 0.015% by volume, at 15% oxygen, on a dry basis; and</p> <p>when burning fuel oil, the total SO₂ emissions from emissions units B001-B006, combined, shall not exceed 4,911 pounds per 3-hour period, and 22,152 pounds per 24-hour period.</p> <p>PE/PM₁₀ emissions for each emissions unit shall not exceed 40.4 pounds per hour*.</p> <p>CO emissions for each emissions unit shall not exceed 25.34 pounds per hour*.</p> <p>VOC emissions for each emissions unit shall not exceed 6.97 pounds per hour*.</p> <p>*The pound per hour emission limitations above for NO_x, PE/PM₁₀, CO, and VOC reflect the emissions unit's potential to emit (PTE). Therefore no hourly (short-term) records are required to demonstrate compliance with these limitations.</p> <p>See b(2)a., b(2)b., and c)(1) - c)(5).</p>
b.	OAC rule 3745-31-05(A)(3) [PTI 14-1905, issued 6/20/1990, and last modified 6/24/1994]	See b)(2)c.
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to 40 CFR Part 52.21 and OAC rules 3745-31-11 through 3745-31-20.
d.	OAC rule 3745-17-11(B)(4)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to 40 CFR Part 52.21 and OAC rules 3745-31-11 through



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		3745-31-20.
e.	OAC rule 3745-18-15(P)	The SO ₂ emission limitation specified by this rule is equivalent to, or less stringent than, the SO ₂ emission limitations established pursuant to 40 CFR Part 52.21 and OAC rules 3745-31-11 through 3745-31-20.
f.	40 CFR Part 60, Subpart GG	The emission limitations established in 40 CFR Part 60, Subpart GG for SO ₂ and NO _x are equivalent to, or less stringent than, those established pursuant to 40 CFR Part 52.21 and OAC rules 3745-31-11 through 3745-31-20. See b)(2)d. and b)(2)e.

(2) Additional Terms and Conditions

a. Best Available Control Technology (BACT) for each emissions unit:

- i. For PE/PM₁₀ emissions, BACT was determined to be turbine engine design, combustion control, and compliance with the visible particulate emission limitation in b)(2)b.

The total PM₁₀ emissions were evaluated and did not trigger any additional federal requirements; therefore, the emissions are regulated as PE.

- ii. For NO_x emissions, BACT was determined to be use of low NO_x burners and a water injection system for additional NO_x reduction.
- iii. For SO₂ emissions, BACT was determined to be use of a low sulfur content fuel oil as specified in c)(1), and compliance with the 3-hour and 24-hour SO₂ emission limitations in b)(1)a.
- iv. For CO emissions, BACT was determined to be burner design.
- v. For VOC emissions, BACT was determined to be the allowable VOC emission rate above and compliance with the operational restrictions.

- b. Visible particulate emissions from any combustion turbine stack shall not exceed 10% opacity, as a 6-minute average, except for cold start-up and shutdown periods. Cold start-up shall be defined as the time necessary to bring each emissions unit on line from a cold state to turbine synchronization and shall not exceed a maximum of twenty (20) minutes. Shutdown periods shall not exceed twenty (20) minutes.



- c. The requirements of 40 CFR 52.21 and OAC rules 3745-31-11 through 3745-31-20 in b)(1)a. above, as established in PSD PTI 14-1905, are equivalent to Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- d. Pursuant to 40 CFR Part 60.332(f), each emissions unit is exempt from the NOx concentration emission limitations when ice fog, as defined in 40 CFR Part 60.331(f), is deemed a hazard by the permittee.
- 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. Except as provided for in the terms and conditions of this permit and the underlying PTI 14-1905, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60. Subpart GG.

c) Operational Restrictions

- (1) The sulfur content of the fuel oil burned in each emissions unit shall not exceed 0.5%, by weight.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (2) The total amount of fuel oil supplied to emissions units B001 through B006, combined, shall not exceed the amounts specified by the following equations:

For any 3-hour period:

$$\text{gallons of fuel oil} = 35078 / S$$

where: S = the sulfur content of the fuel oil, in percent, by weight

(e.g., if the fuel oil sulfur content is 0.5%, then S = 0.5)

For any 24-hour period:

$$\text{gallons of fuel oil} = 158228 / S$$

where: S = the sulfur content of the fuel oil, in percent, by weight

(e.g., if the fuel oil sulfur content is 0.5%, then S = 0.5).

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (3) The total operating hours for emissions units B001 through B006, combined, shall not exceed 17,844 hours per rolling, 12-month period.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (4) The minimum stack height for each emissions unit shall be at least 213 feet above the ground.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall burn only natural gas, LPG, and/or fuel oil in each emissions unit.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

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

- (1) The permittee shall maintain daily records of the following information for each emissions unit:

a. records of the turbines operated and the hours each turbine identified operates; and

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

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), 40 CFR Part 52.21, and OAC rule 3745-31-11 through OAC rule 3745-31-20)

- (2) The permittee shall operate and maintain a continuous monitoring system to monitor and record the fuel consumption and the ratio of water-to-fuel being fired in each emissions unit. This system shall be accurate to within plus or minus 5% and shall be approved by the Administrator of the U.S. EPA.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through 3745-31-20, OAC rule 3745-31-05(A)(3), and 40 CFR Part 60, Subpart GG)

- (3) The Permittee shall monitor the total sulfur content of the gaseous fuel being fired in the turbine, except as provided in (3)a. below. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86, which measure the major sulfur compounds may be used.

a. The Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in §60.331(u), regardless of whether an existing custom schedule approved by the administrator for Subpart GG requires such monitoring. The Permittee shall use one of the following sources of information to make the required demonstration:



- i. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
- ii. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 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 Part 75 is required.

Analyses for the purpose of determining the sulfur content of the gaseous fuel may be performed by the permittee, the fuel vendor, or any other qualified agency in accordance with the analytical methods specified in 40 CFR Part 60, Subpart GG, Section 60.335 or equivalent methods as approved by the Administrator.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through 3745-31-20, OAC rule 3745-31-05(A)(3), and 40 CFR Part 60, Subpart GG)

- (4) The permittee shall maintain records of the fuel oil burned in each emissions unit in accordance with either Option 1 or Option 2 described below:

Option 1:

For each shipment of oil received for burning in each 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.

Option 2:

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

Alternative 1:

For each shipment of oil received for burning in each emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission

rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in each emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving each emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in each emissions unit. A representative grab sample of oil does not need to be collected on days when an emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, OAC rule 3745-31-05(A)(3), 40 CFR Part 60, Subpart GG, OAC rule 3745-18-04(E)(3), and OAC rule 3745-18-04(I))

- (5) The permittee shall collect and record the following information on a monthly basis:
- a. the total hours of operation for each emissions unit;
 - b. the total hours of operation for emissions units B001 through B006, combined; and
 - c. the rolling, 12-month summation of the total hours of operation for emissions units B001 through B006, combined (the summation of the current month's total combined hours of operation recorded in d)(5)b. added to the previous 11 months total combined hours of operation).

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (6) The permittee shall collect and record the following information:
- a. the total combined number of gallons of fuel oil supplied to emissions units B001 through B006 for all 3-hour periods of operation;
 - b. the percent sulfur content, by weight, of the fuel oil supplied to emissions units B001 through B006 for all 3-hour periods of operation;
 - c. the total combined number of gallons of fuel oil supplied to emissions units B001 through B006 for all 24-hour periods of operation;
 - d. the percent sulfur content, by weight, of the fuel oil supplied to emissions units B001 through B006 for all 24-hour periods of operation;
 - e. the total combined SO₂ emissions, in pounds, for emissions units B001 through B006, for all 3-hour periods of operation when burning fuel oil. The SO₂ emissions shall be calculated using the fuel oil usage above, the fuel oil sulfur and heat contents collected and recorded in d)(4) and the equations specified in OAC rule 3745-18-04(F);
 - f. the total combined SO₂ emissions, in pounds, for emissions units B001 through B006, for all 24-hour periods of operation when burning fuel oil. The SO₂ emissions shall be calculated using the fuel oil usage above, the fuel oil sulfur and heat contents collected and recorded in d)(4) and the equations specified in OAC rule 3745-18-04(F);
 - g. identification of each cold start-up for each emissions unit; and
 - h. identification of each shutdown for each emissions unit.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-1905:d)(1) through d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 60, Subpart GG)

- (2) Pursuant to 40 CFR Parts 60.7 and 60.13(h) and 60.334(j), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Southwest Ohio Air Quality Agency documenting any 1-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio established during the most recent performance test that demonstrated that the emissions unit was in compliance with the applicable NO_x emission limitations or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the most recent performance test that demonstrated that the emissions unit was in compliance with the applicable NO_x emission limitations. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and the nitrogen content of the fuel during the period of excess emissions. The graphs or figures developed under 40 CFR Part 60.334(a) shall also be submitted with each report.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Southwest Ohio Air Quality Agency documenting any continuous water-to-fuel 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 continuous monitoring system 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 date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the continuous monitoring system while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through 3745-31-20, OAC rule 3745-31-05(A)(3), and 40 CFR Part 60, Subpart GG)

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. any exceedance of the 3-hour and/or 24-hour total combined fuel oil usage restrictions for emissions units B001 through B006, when burning fuel oil;
 - b. any exceedance of the 3-hour and/or 24-hour SO₂ emission limitations when burning fuel oil for emissions units B001 through B006;
 - c. any exceedance of the total combined operating hours restriction for emissions units B001 through B006;
 - d. any exceedance of the 0.5%, by weight, fuel oil sulfur content restriction for each emissions unit; and



- e. each day when a fuel other than natural gas, LPG, and/or fuel oil was burned in each emissions unit.

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

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-1905: e)(1) through e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

- a. Emission Limitations:

NOx emissions shall not exceed 261.4 pounds per hour*.

PE/PM₁₀ emissions shall not exceed 40.4 pounds per hour*.

CO emissions shall not exceed 25.34 pounds per hour*.

VOC emissions for each emissions unit shall not exceed 6.97 pounds per hour*.

Applicable Compliance Method:

The above emission limitations reflect each emissions unit's potential to emit when combusting the worst case fuel. Compliance with the emission limitations may be determined by converting, to pounds/hour, the turbine engine manufacturer's emission factors found in Table 2.3 of the Technical Support Document, submitted 8/25/89, with the application for PSD Permit to Install 14-1905, as follows:

NOx emission factors: 33.00 grams per second when burning fuel oil, and 32.50 grams per second when burning natural gas or LPG;

PE/PM₁₀ emission factors: 5.10 grams per second when burning fuel oil, and 0.24 gram per second when burning natural gas or LPG;

CO emission factor: 3.20 grams per second when burning diesel fuel, natural gas, or LPG; and



VOC emission factor: 0.88 gram per second when burning diesel fuel, natural gas, or LPG.

If required, the permittee shall demonstrate compliance with the NO_x, PE/PM₁₀, CO, and VOC emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and Methods 7, 5, 10, and 25 for the respective pollutants while burning natural gas or LPG. When fuel oil is combusted in these emissions units, the permittee shall demonstrate compliance as specified in f)(2) below. Alternate U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

b. Emission Limitations:

When burning natural gas, NO_x emissions shall not exceed 42 ppm by volume, at 15% oxygen, on a dry basis; and

When burning LPG or fuel oil, NO_x emissions shall not exceed 65 ppm by volume, at 15% oxygen, on a dry basis.

Applicable Compliance Method:

Compliance with the NO_x concentration emission limitations may be demonstrated based upon the records required pursuant to d)(2), d)(3), and the test methods and procedures specified in 40 CFR 60.335. When fuel oil is combusted in these emissions units, the permittee shall also demonstrate compliance as specified in f)(2) below.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, OAC rule 3745-31-05(A)(3), and 40 CFR Part 60, Subpart GG)

c. Emission Limitations:

SO₂ emissions shall not exceed 516.0 pounds per hour;

When burning natural gas or LPG, SO₂ emissions shall not exceed 0.015% by volume, at 15% oxygen, on a dry basis; and

When burning fuel oil, the total SO₂ emissions from emissions units B001-B006, combined, shall not exceed 4,911 pounds per 3-hour period, and 22,152 pounds per 24-hour period.

Applicable Compliance Method:

The above pound per hour emission limitation reflects each emissions unit's potential to emit when combusting worst case fuel oil with a sulfur content of 0.5% by weight or less. Compliance with the emission limitation may be determined by converting, to pounds/hour, the turbine engine manufacturer's



SO₂ emission factors of 65.13 grams per second when burning fuel oil (0.5% sulfur by weight), and 0.00 gram per second when burning natural gas or LPG, found in Table 2.3 of the Technical Support Document, submitted 8/25/89, with the application for PSD Permit to Install 14-1905.

Compliance with the SO₂ concentration emission limitation above shall be demonstrated based upon the records required pursuant to d)(3), and the test methods and procedures specified in 40 CFR 60.335.

Compliance with the total 3-hour and 24-hour SO₂ emission limitations above for emissions units B001 through B006, combined, shall be demonstrated by the fuel oil analysis in d)(4) and the records required pursuant to d)(6).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 while burning natural gas. When fuel oil is combusted in these emissions units, the permittee shall demonstrate compliance as specified in f)(2) below. Alternate U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, OAC rule 3745-31-05(A)(3), and 40 CFR Part 60, Subpart GG)

d. Emission Limitation:

Visible particulate emissions from any stack associated with the combustion turbines shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1). See f)(2).

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

(2) Upon initial use of fuel oil in the combustion turbines, the permittee shall conduct, or have conducted, emission testing for the emissions units in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the applicable PE/PM₁₀, NO_x, SO₂, VOC, CO, and visible particulate emission limitations.
- b. The emission testing shall be conducted within 90 days of initiating fuel oil firing, unless an alternative schedule is submitted and approved by Southwest Ohio Air Quality Agency. The frequency for future emission testing while burning fuel oil



will be determined based upon the results of the initial emission tests and the procedures specified in Ohio EPA Engineering Guide 16.

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - i. for PE/PM₁₀ - 40 CFR Part 60, Appendix A, Methods 1 through 5;
 - ii. for NO_x (hourly) - 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7;
 - iii. for NO_x (concentration) - 40 CFR Part 60, Appendix A, Method 20, and the procedures in Subpart GG;
 - iv. for SO₂ - 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6;
 - v. for VOC - 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25;
 - vi. for CO - 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10; and
 - vii. for visible particulate – 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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

- d. Testing for PE/PM₁₀, NO_x, SO₂, and visible particulate emissions shall be performed on each emissions unit. Testing for CO and VOC shall be performed on one emissions unit that is representative of the permitted combustion turbine units (B001 through B006). Prior to performing CO and VOC testing, the permittee shall obtain agreement on the emissions unit to be tested as a representative unit from the Southwest Ohio Air Quality Agency.
- e. During the emissions testing, the emissions unit shall be operated under operational conditions approved in advance by the Southwest Ohio Air Quality Agency. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under “worst case” conditions expected during the life of the permit. As part of the information provided in the “Intent to Test” notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe “worst case” operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the Southwest Ohio Air Quality Agency that the proposed operating conditions constitute “worst case”. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.



- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Southwest Ohio Air Quality Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Southwest Ohio Air Quality Agency's refusal to accept the results of the emission test(s).
- g. Personnel from the Southwest Ohio Air Quality Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. 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 Southwest Ohio Air Quality Agency 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 Southwest Ohio Air Quality Agency.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through 3745-31-20, OAC rule 3745-31-05(A)(3), and 40 CFR Part 60, Subpart GG)

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-1905: f)(1) - f)(2). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.



2. Emissions Unit Group - Vaporizing Boilers: B013, B014, B015, B016, B017, and B018

EU ID	Operations, Property and/or Equipment Description
B013	21 MMBtu/hr LPG-fired vaporizing boiler with low NOx burners
B014	21 MMBtu/hr LPG-fired vaporizing boiler with low NOx burners
B015	21 MMBtu/hr LPG-fired vaporizing boiler with low NOx burners
B016	21 MMBtu/hr LPG-fired vaporizing boiler with low NOx burners
B017	21 MMBtu/hr LPG-fired vaporizing boiler with low NOx burners
B018	21 MMBtu/hr LPG-fired vaporizing boiler with low NOx burners

For purposes of clarification, b) through g) below are applicable to each of the emissions units listed above on an individual basis.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-11 through 3745-31-20; and 40 CFR Part 52.21 Attainment Provisions for Prevention of Significant Deterioration (PSD) [PTI 14-1905, issued 6/20/1990, and last modified 6/24/1994]	NOx emissions from each emissions unit shall not exceed 12.4 pounds per 1000 gallons of LPG burned*. CO emissions from each emissions unit shall not exceed 3.1 pounds per 1000 gallons of LPG burned*. PE/PM ₁₀ emissions from each emissions unit shall not exceed 0.27 pound per 1000 gallons of LPG burned*. VOC emissions from each emissions unit shall not exceed 0.25 pound per 1000 gallons of LPG burned*. *The emission limitations above for NOx, PE/PM ₁₀ , CO, and VOC reflect the emissions unit's potential to emit (PTE). Therefore no records are required to



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		demonstrate compliance with these limitations. See b)(2)a. and c)(1) – c)(3).
b.	OAC rule 3745-31-05(A)(3) [PTI 14-1905, issued 6/20/1990, and last modified 6/24/1994]	See b)(2)b. Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to 40 CFR Part 52.21 and OAC rules 3745-31-11 through 3745-31-20.

(2) Additional Terms and Conditions

a. Best Available Control Technology (BACT) for each emissions unit:

- i. For NO_x emissions, BACT was determined to be use of low NO_x burners.
- ii. For PE/PM₁₀, CO, VOC, and SO₂ emissions, BACT was determined to be use of clean-burning LPG fuel, burner design, and good combustion control.

b. The requirements of 40 CFR 52.21 and OAC rules 3745-31-11 through 3745-31-20 in b)(1)a. above, as established in PSD PTI 14-1905, are equivalent to Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) The total amount of LPG burned in emissions units B013 through B018, combined, shall not exceed 4.9 million gallons per year based on a rolling, 12-month summation.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

(2) The permittee shall burn only LPG in each emissions unit.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

(3) The minimum stack height for each emissions unit shall be at least 80 feet above the ground.



(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than LPG, the permittee shall maintain a record of the type and quantity of fuel burned in each emissions unit.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall collect and record the following information on a monthly basis:

- a. the total amount of LPG burned in each emissions unit;
- b. the total amount of LPG burned in emissions units B013 through B018, combined; and
- c. the rolling, 12-month summation of the total amount of LPG burned in emissions units B013 through B018, combined (the summation of the current month's total combined amount of LPG burned recorded in line d)(2)a. added to the previous 11 months total combined amount of LPG burned).

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-1905:d)(1) - d)(2). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

- a. each day when a fuel other than LPG was burned in each emissions unit; and
- b. any exceedance of the total combined LPG usage restriction for emissions units B013 through B018.

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

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))



- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-1905: e)(1). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

- a. Emission Limitations:

NOx emissions from each emissions unit shall not exceed 12.4 pounds per 1000 gallons of LPG burned.

CO emissions from each emissions unit shall not exceed 3.1 pounds per 1000 gallons of LPG burned.

PE/PM₁₀ emissions from each emissions unit shall not exceed 0.27 pound per 1000 gallons of LPG burned.

VOC emissions from each emissions unit shall not exceed 0.25 pound per 1000 gallons of LPG burned.

Applicable Compliance Method:

The above emission limitations reflect each emissions unit's potential to emit for LPG combustion. Compliance with the emission limitations may be determined by converting, to pounds/hour, the vaporizing boiler manufacturer's emission factors, in grams/second, found in Table 2.3 of the Technical Support Document, submitted 8/25/89, with the application for PSD Permit to Install 14-1905, dividing by the maximum hourly LPG heat input capacity of each emission unit (275 gallons LPG/hr), then multiplying by 1000 gallons.

NOx emission factor: 0.43 gram per second when burning LPG;

PE/PM₁₀ emission factor: 0.015 gram per second when burning LPG;

CO emission factor: 0.108 gram per second when burning LPG; and

VOC emission factor: 0.009 gram per second when burning LPG.

Note: SO₂ emissions were determined to be negligible based upon the SO₂ emission factor of 0.00 grams per second when burning LPG.

If required, the permittee shall demonstrate compliance with the NOx, PE/PM₁₀, CO, and VOC emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and



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Duke Energy Kentucky, Woodsdale Generating Station
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Methods 7, 5, 10, and 25 for the respective pollutants while burning LPG. Alternate U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 52.21, OAC rule 3745-31-11 through OAC rule 3745-31-20, and OAC rule 3745-31-05(A)(3))

b. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

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

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and OAC rule 3745-17-07(A)(1))

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-1905: f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.