



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

9/2/2015

Certified Mail

Mr. Thomas Euclide
Kent State University Heating Plant
P.O. Box # 5190
Kent, OH 44242

Facility ID: 1667040085
Permit Number: P0119120
County: Portage

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Minor Permit Modification

Dear Permit Holder:

Enclosed is a final Ohio Environmental Protection Agency (EPA) Air Pollution Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully. In this letter you will find the information on the following topics:

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions regarding this permit, please contact the Akron Regional Air Quality Management District as indicated on page one of your permit.

Sincerely,



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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Akron Regional Air Quality Management District



FINAL

**Division of Air Pollution Control
Title V Permit
for
Kent State University Heating Plant**

Facility ID:	1667040085
Permit Number:	P0119120
Permit Type:	Minor Permit Modification
Issued:	9/2/2015
Effective:	9/2/2015
Expiration:	7/16/2019



Division of Air Pollution Control
Title V Permit
for
Kent State University Heating Plant

Table of Contents

Authorization	1
A. Standard Terms and Conditions	2
1. Federally Enforceable Standard Terms and Conditions	3
2. Monitoring and Related Record Keeping and Reporting Requirements.....	3
3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance.....	6
4. Risk Management Plans	7
5. Title IV Provisions	7
6. Severability Clause	7
7. General Requirements	7
8. Fees.....	8
9. Marketable Permit Programs.....	8
10. Reasonably Anticipated Operating Scenarios	9
11. Reopening for Cause	9
12. Federal and State Enforceability	9
13. Compliance Requirements.....	9
14. Permit Shield	11
15. Operational Flexibility.....	11
16. Emergencies	11
17. Off-Permit Changes	12
18. Compliance Method Requirements	12
19. Insignificant Activities or Emissions Levels.....	13
20. Permit to Install Requirement.....	13
21. Air Pollution Nuisance	13
22. Permanent Shutdown of an Emissions Unit	13
23. Title VI Provisions	13
24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only	14
25. Records Retention Requirements Under State Law Only.....	14
26. Inspections and Information Requests	14



27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements.....	15
28. Permit Transfers	15
29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	15
30. Submitting Documents Required by this Permit	16
B. Facility-Wide Terms and Conditions.....	17
C. Emissions Unit Terms and Conditions	26
1. B008, Solar Gas Turbine GT-1.....	27
2. B009, Duct Burner	35
3. B010, Solar Gas Turbine GT-2.....	40
4. Emissions Unit Group – Major Steam Boilers: B006, B007	50



Final Title V Permit
Kent State University Heating Plant
Permit Number: P0119120
Facility ID: 1667040085
Effective Date: 9/2/2015

Authorization

Facility ID: 1667040085
Facility Description: Colleges, Universities, and Professional Schools.
Application Number(s): A0052222
Permit Number: P0119120
Permit Description: Title V Minor Permit Modification to include the terms and conditions from PTI P0116154 issued for a like replacement of turbine B010 and to further make minor revisions to the original Title V permit terms and conditions for purposes of clarifying applicable requirements.
Permit Type: Minor Permit Modification
Issue Date: 9/2/2015
Effective Date: 9/2/2015
Expiration Date: 7/16/2019
Superseded Permit Number: P0109890

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

Kent State University Heating Plant
P.O. Box 5190
Kent, OH 44242-0001

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

Akron Regional Air Quality Management District
1867 West Market St.
Akron, OH 44313
(330)375-2480

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 Akron Regional Air Quality Management District. 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



Final Title V Permit
Kent State University Heating Plant
Permit Number: P0119120
Facility ID: 1667040085
Effective Date: 9/2/2015

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 Akron Regional Air Quality Management District. 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 Akron Regional Air Quality Management District 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 Akron Regional Air Quality Management District 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 Akron Regional Air Quality Management District 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 Akron Regional Air Quality Management District) 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 Akron Regional Air Quality Management District 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 Akron Regional Air Quality Management District 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 Akron Regional Air Quality Management District.
- 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 Akron Regional Air Quality Management District. 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 Akron Regional Air Quality Management District 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 Akron Regional Air Quality Management District 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.

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 Akron Regional Air Quality Management District, 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.



Final Title V Permit
Kent State University Heating Plant
Permit Number: P0119120
Facility ID: 1667040085
Effective Date: 9/2/2015

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:
 - a) B011 Library EG diesel-fired electrical generator (PBR 05303);

B101 Art Annex EG diesel-fired electrical generator (PBR 05304);
B102 Kent EG gasoline-fired electrical generator (PBR 05305);
B103 Portable #1 EG diesel-fired electrical generator (PBR 05306);
B104 Williams EG diesel-fired electrical generator (PBR 05307);
B105 Lake/Olson EG diesel-fired electrical generator (PBR 05308);
B106 Stockdale EG diesel-fired electrical generator (PBR 05309);
B107 Cunningham EG natural gas-fired electrical generator (PBR 05310);
B109 Smith EG natural gas-fired electrical generator (PBR 05312);
B110 Ice Arena EG natural gas-fired electrical generator (PBR 05313);
B111 Business EG natural gas-fired electrical generator (PBR 05314);
B112 SRL EG diesel-fired electrical generator (PBR 05315);
B114 Rockwell EG diesel-fired electrical generator (PBR 05317);
B115 MACC EG diesel-fired electrical generator (PBR 05318);
B116 Merrill EG natural gas-fired electrical generator (PBR 05319);
B117 Portable #3 EG diesel-fired electrical generator (PBR 05320);
B118 Portable #2 EG electrical generator (PBR 05321);
B119 Moulton EG diesel-fired electrical generator (PBR 05322);
B120 Cunningham Annex EG diesel-fired electrical generator (PBR 05323);
B121 WKSU Tower EG diesel-fired electrical generator (PBR 05324);
 - b) B122 Tri-Towers EG diesel-fired electrical generator (PBR 05325);
 - c) B123 Beall EG diesel-fired electrical generator (PBR 05326);
 - d) B124 LCM EG diesel-fired electrical generator (PBR 05327);
 - e) B125 Power House EG diesel-fired electrical generator (PBR 05328);
 - f) B126 Math EG diesel-fired electrical generator (PBR 05329);

G001 Vehicle fueling station (PBR 07350);
 - g) K001 CE & O Paint Shop Spray Booth (PTI 16-02340);
P101 Franklin Hall EG diesel-fired electrical generator (PBR 09341);
 - h) P102 Stopher/Johnson EG diesel-fired electrical generator (PBR 09341);
 - i) P103 Oscar Ritchie EG diesel-fired electrical generator (PBR 09341);

- j) P104 Student Center EG natural gas-fired electrical generator (PBR 09341);
- k) P105 M&S EG natural gas-fired electrical generator (PBR 09341); and
- l) P106 WKSU EG diesel-fired electrical generator (PBR 09341).

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

3. OAC rule 3745-31-05(D) Special terms and conditions including federally enforceable limitations on potential to emit

This facility includes the heating plant and campus-wide insignificant and trivial Title V status emissions units. The heating plant includes two identical natural gas/fuel oil-fired boilers (emissions units B006 and B007, each unit rated at 121 million Btu per hour heat input), a natural gas/fuel oil-fired cogeneration gas turbine (emissions unit B008, rated at 64.18 million Btu per hour), a natural gas-fired duct burner (emissions unit B009, rated at 76.2 million Btu per hour heat input), and a natural gas-fired cogeneration gas turbine (emissions unit B010, rated at 76.0 million Btu per hour).

In order for this facility to continue to avoid major new source review (NSR) program requirements, the following emissions limitations, operating restrictions, monitoring and record keeping, reporting and compliance demonstration requirements, as established in Permit to Install (PTI) #16-02332 that was issued final 05/11/2004, shall apply to the heating plant, emissions units B006 through B010:

a) **Emissions Limitations:**

Annual emissions, based upon a rolling, 12-month summation of the monthly emissions, shall be limited to the following:

Particulate emissions (PE): 9.5 tons per year;

Carbon monoxide (CO): 87.0 tons per year;

Nitrogen oxides (NO_x): 99.0 tons per year; and

Sulfur dioxide (SO₂): 99.0 tons per year.

b) **Operational Restrictions:**

(1) If burned exclusively, with no usage of gas, the maximum annual oil usage for emissions units B006 through B008, combined, shall not exceed 2.627 million gallons based upon a rolling, 12-month summation of the monthly oil usage rates;

(2) If burned exclusively, with no usage of gas, the maximum annual oil usage for emissions unit B008 shall not exceed 0.740 million gallons based upon a rolling, 12-month summation of the monthly oil usage rates;

(3) If burned exclusively, with no usage of oil, the maximum annual gas usage for emissions units B006 through B010, combined, shall not exceed 1414 million cubic feet based upon a rolling, 12-month summation of the monthly gas usage rates;

- (4) If oil is substituted for gas in emissions units B006 and/or B007, then the annual limit of 1414 million cubic feet of natural gas shall be reduced by 71.5 cubic feet for each gallon of oil burned; and
- (5) If oil is substituted for gas in emissions unit B008, then the annual limit of 1414 million cubic feet of natural gas shall be reduced by 540 cubic feet for each gallon of oil burned.

c) **Monitoring and/or Recordkeeping Requirements:**

The permittee shall maintain monthly records of the following information for emissions units B006 through B010, combined:

- (1) the monthly amount of oil burned (gallons);
- (2) the rolling, 12-month amount of oil burned (gallons);
- (3) the monthly amount of gas burned (cubic feet);
- (4) the rolling, 12-month amount of gas burned (cubic feet);
- (5) the monthly emissions (tons) for each of PE, CO, NO_x and SO₂; and
- (6) the rolling, 12-month emission rates (tons) for each of PE, CO, NO_x and SO₂.

d) **Reporting Requirements:**

The permittee shall submit quarterly deviation (excursion) reports for the heating plant, emissions units B006 through B010, that identify:

- (1) all exceedances of the rolling, 12-month fuel usage rates, each for oil and gas, as specified above in Operational Restrictions in this term (term #3 of the "**B. Facility-Wide Terms and Conditions**"), that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit; and
- (2) all exceedances of the rolling, 12-month emission rates, for PE, CO, NO_x and SO₂, for emissions units B006 through B010, combined, as specified above in Emissions Limitations in this term (term #3 of the "**B. Facility-Wide Terms and Conditions**"), that restrict the potential to emit (PTE) for emissions of PE, CO, NO_x and SO₂ and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
- (3) the probable cause of each deviation (excursion);
- (4) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- (5) the magnitude and duration of each deviation (excursion).

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

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

[OAC rule 3745-15-03(B)(1)(b)] and [OAC rule 3745-15-03(C)]

e) **Compliance Demonstration Requirements:**

Compliance with the above 9.5 tons per year PE, 87.0 tons per year CO, 99.0 tons per year NO_x and 99.0 tons per year SO₂ emissions limitations, based upon a rolling, 12-month summation of the monthly emissions, shall be demonstrated in accordance with the above Monitoring and/or Recordkeeping Requirements in this term (term #3 of the "**B. Facility-Wide Terms and Conditions**") using the synthetic minor potential to emit strategy in "Permit to Install Application Supporting Documentation" prepared 10/21/03 by David Marczely, Environmental Design Group, 450 Grant Street, Akron, Ohio 44311, and contained in the application for Permit to Install #16-02332 that was issued final 05/11/2004.

(Authority for terms a) through e) above: OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), OAC rule 3745-77-07(A)(1) and OAC rule 3745-77-07(C)(1))

4. 40 CFR Part 63, Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63, Subparts A and JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. Although Ohio EPA has determined that this Generally Available Control Technology (GACT) NESHAP applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.

On March 21, 2011, U.S. EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters-Area Sources, 40 CFR Part 63, Subpart JJJJJJ. This subpart establishes national emission limitations, work practice standards, emission reduction measures, and management practices for HAP emitted from industrial, commercial, and institutional boilers and process heaters located at area sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work and management practice standards. U.S. EPA shall be regulating and enforcing the requirements of these standards, not the Ohio EPA. This permit only provides the permittee notice of these additional requirements, if applicable.

This facility is an area source of hazardous air pollutants (HAP), as defined in 40 CFR Part 63, § 63.2, and includes the heating plant and campus-wide insignificant air contaminant emission sources. The heating plant includes two natural gas/fuel oil-fired boilers (emissions units B006 and B007, each rated

at 121 million Btu per hour heat input), a natural gas/fuel oil-fired cogeneration gas turbine (emissions unit B008, rated at 64.18 million Btu per hour), a natural gas-fired duct burner (emissions unit B009, rated at 76.2 million Btu per hour heat input), and a natural gas-fired cogeneration gas turbine (emissions unit B010, rated at 76.0 million Btu per hour).

At this institutional facility, besides emissions units B006 and B007, only boilers and process heaters that burn non gaseous carbon-based fuels, if these other units exist at the facility, are affected by Subpart JJJJJJ. A gas-fired boiler, as defined in Subpart JJJJJJ, is not subject to the requirements of Subpart JJJJJJ. Per § 63.11237, *Gas-fired boiler* includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

5. 40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The Ohio EPA has determined that this facility, an area source of hazardous air pollutants (HAP), is subject to 40 CFR Part 63, Subparts A and ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines. The complete NESHAP requirements, including the NESHAP 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.

U.S. EPA originally promulgated on June 15, 2004, with subsequent revisions and updates, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63, Subpart ZZZZ. Subpart ZZZZ establishes national emission limitations and operating limitations for HAP emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

6. 40 CFR Part 63, Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

m) The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63, Subparts A and CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. Although Ohio EPA has determined that this Generally Available Control Technology (GACT) NESHAP applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.

On January 10, 2008, U.S. EPA promulgated the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, 40 CFR Part 63, Subpart CCCCCC. This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities

(GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices. U.S. EPA shall be regulating and enforcing the requirements of these standards, not the Ohio EPA. This permit only provides the permittee notice of these additional requirements, if applicable.

7. 40 CFR Part 63, Subpart HHHHHH—National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

n) The Ohio EPA has determined that this facility may be subject to the requirements of 40 CFR Part 63, Subparts A and HHHHHH—National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. Although Ohio EPA has determined that this Generally Available Control Technology (GACT) NESHAP may apply, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.

On January 9, 2008, U.S. EPA promulgated the National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR Part 63, Subpart HHHHHH. This subpart establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Chemical Abstract Service number 75092, in paint removal processes; autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations; and spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards contained herein. U.S. EPA shall be regulating and enforcing the requirements of these standards, not the Ohio EPA. This permit only provides the permittee notice of these additional requirements, if applicable.

8. 40 CFR Part 60, Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

The Ohio EPA has determined that this facility is subject to 40 CFR Part 60, Subparts A and Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (NSPS). Except as specified in this subpart as not applicable, the affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)). 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.

Emissions units B006 (Nebraska Boiler No. 6) and B007 (Nebraska Boiler No. 7) are subject to the requirements of this subpart.

9. 40 CFR Part 60, Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

The Ohio EPA has determined that this facility is subject to 40 CFR Part 60, Subparts A and Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (NSPS). Except as specified in this subpart as not applicable, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). 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.

Emissions unit B009 (Duct Burner) is subject to the requirements of this subpart.

10. 40 CFR Part 60, Subpart GG—Standards of Performance for Stationary Gas Turbines

The Ohio EPA has determined that this facility is subject to 40 CFR Part 60, Subparts A and GG, Standards of Performance for Stationary Gas Turbines (NSPS). The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired. Any facility under paragraph (a) of § 60.330 which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of § 60.332. 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.

Emissions unit B008 (Solar Gas Turbine GT-1) is subject to the requirements of this subpart.

11. 40 CFR Part 60, Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The Ohio EPA has determined that this facility is subject to 40 CFR Part 60, Subparts A and IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS). The provisions of Subpart IIII are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of § 60.4200. 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.

12. 40 CFR Part 60, Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

The Ohio EPA has determined that this facility is subject to 40 CFR Part 60, Subparts A and JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (NSPS). The provisions of Subpart JJJJ are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of § 60.4230. For purposes of this subpart, the date that construction commences is the date the engine is

ordered by the owner or operator. 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.

- 13. 40 CFR Part 60, Subpart KKKK—Standards of Performance for Stationary Combustion Turbines**
The Ohio EPA has determined that this facility is subject to 40 CFR Part 60, Subparts A and KKKK, Standards of Performance for Stationary Combustion Turbines (NSPS). This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005. If you are the owner or operator of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, your turbine is subject to this subpart. Only heat input to the combustion turbine should be included when determining whether or not this subpart is applicable to your turbine. Any additional heat input to associated heat recovery steam generators (HRSG) or duct burners should not be included when determining your peak heat input. However, this subpart does apply to emissions from any associated HRSG and duct burners. Stationary combustion turbines regulated under this subpart are exempt from the requirements of subpart GG of this part. Heat recovery steam generators and duct burners regulated under this subpart are exempted from the requirements of subparts Da, Db, and Dc of this part. 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.

Emissions unit B010 (Solar Gas Turbine GT-2) is subject to the requirements of this subpart.

- 14.** It is the sole responsibility of the facility to comply with all applicable Federal and State regulatory requirements, whether or not said requirements are fully and properly identified in this permit.

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



Final Title V Permit
Kent State University Heating Plant
Permit Number: P0119120
Facility ID: 1667040085
Effective Date: 9/2/2015

C. Emissions Unit Terms and Conditions

1. B008, Solar Gas Turbine GT-1

Operations, Property and/or Equipment Description:

Cogeneration stationary gas turbine, natural gas/fuel oil-fired, 64.18 million Btu per hour rated heat input, drives a 5 MW rated power output electrical generator and recovers heat from the gas turbine exhaust gases, along with supplemental heat provided from a duct burner (emissions unit B009) placed in the exhaust duct from emissions unit B008, to generate steam in a heat recovery steam generator (HRSG). This emissions unit is a *combined cycle gas turbine* per the definition in 40 CFR Part 60, Subpart GG. Natural gas is burned as primary fuel and #2 fuel oil is burned as a backup fuel. No emissions control employed. This cogeneration facility is prohibited from selling electric energy to the utility power distribution system, i.e., the electrical power grid. All electric energy generated by this facility is consumed by this facility.

- 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) b)(1)(f), b)(2)(c) through (e), f)(3) and g)(1).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #16-02332, final 05/11/2004) Best Available Technology (BAT)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average. PE shall not exceed 0.014 pound per million Btu heat input. Carbon monoxide (CO) emissions shall not exceed 0.13 pound per million Btu heat input. <u>When burning gas:</u> Nitrogen oxides (NO _x) emissions shall not exceed 0.10 pound per million Btu heat input (25 ppmvd, mathematically adjusted to 15% oxygen as a diluent). <u>When burning oil:</u> NO _x emissions shall not exceed 0.40

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pound per million Btu heat input (98ppmvd, mathematically adjusted to 15% oxygen as a diluent).</p> <p>The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-18-06(A), 3745-18-06(F) and 3745-31-05(D), and 40 CFR Part 60, Subpart A.</p> <p>See b)(2)a. and b)(2)b.</p>
b.	<p>OAC rule 3745-18-06(A)</p> <p>[When burning gas]</p>	<p>Fuel burning equipment, stationary gas turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.</p>
c.	<p>OAC rule 3745-18-06(F)</p> <p>[When burning oil]</p>	<p>Except as otherwise indicated in paragraph (H) of this rule or in rules 3745-18-07 to 3745-18-94 of the Administrative Code, no owner or operator of any stationary gas turbine shall cause or permit the maximum emission of sulfur dioxide from any source to exceed 0.5 pound of sulfur dioxide per MM Btu actual heat input.</p>
d.	OAC rule 3745-31-05(D)	See term #3 of "B. Facility-Wide Terms and Conditions" above.
e.	OAC Chapter 3745-103	Exempt. See b)(2)c.
f.	OAC chapter 3745-110	<p>Per definitions in OAC rule 3745-110-01, this combined cycle stationary combustion turbine is a "Stationary combustion turbine", and is an "affected source" located at an "affected facility". This affected source is subject to either the applicable emissions limits in OAC rule 3745-110-03(E)(1)(b), or the RACT studies for stationary sources requirements of OAC rule 3745-110-03(I). This emissions unit meets the applicability requirements of OAC rule 3745-110-02(A)(1) as an existing source located in Portage County.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The emission limitation by this rule specified for natural gas firing is less than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)(d) through (e).
g.	40 CFR Part 60, Subpart A	The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart A (General Provisions). See b)(2)f.
h.	40 CFR Part 75	Exempt. See b)(2)c.
i.	40 CFR Part 63, Subpart YYYY	Exempt. This stationary combustion turbine is not located at a major source of HAP emissions.
j.	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) 40 CFR Part 60, Subpart GG	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The PE, NO_x and CO emissions limits established pursuant to OAC rule 3745-31-05(A)(3) and the SO₂ emissions limit from OAC rule 3745-18-06(F) are equal to or greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emissions limits.

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

- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final Permit-to-Install (PTI) prior to making any change to equipment, change in fuels burned, change in the method of operation, or any other change of this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 for any type of air contaminant not previously emitted.

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

- c. This emissions unit is exempt from the acid rain program requirements in 40 CFR Parts 72 and 75 and in OAC Chapter 3745-103 pursuant to the exemption for non-utility units specified in 40 CFR Part 72.6 (b)(8) and OAC rule 3745-103-02(B)(8).

- d. B008 is subject to the NO_x RACT requirements of rule OAC 3745-110 when burning natural gas. [OAC 3745-110 is not applicable while burning distillate oil since oil is burned only during curtailments and thus B008 is exempt per OAC 3745-110-03 (K)(21) "Any affected source whose utilization in less than ten per cent of its capacity factor on an annual average basis over a three-year rolling period and less than twenty per cent of its capacity factor in any year of the three-year rolling period."] Except as otherwise provided in paragraphs (I) and (J) of this rule, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, pursuant to 3745-110-03 E.(2)(b) no owner or operator of a combined cycle turbine rated at 3.5 megawatts up to, and including 25.0 megawatts, shall allow or permit the discharge into the ambient air of any NO_x emissions in excess of the following:

42.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel, for both mechanical drive and electrical generation.

The above NO_x RACT emission limit when firing natural gas is less stringent than the BAT limit in 1.b.1) a. above.

- e. On May 12, 2011, Ohio's NO_x RACT rule, OAC Chapter 3745-110, became effective. However, this rule has not yet been approved by the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves OAC Chapter 3745-110, the requirements of this rule will be enforceable under state law only.
- f. 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.

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

c) Operational Restrictions

- (1) No oil, except No. 2 fuel oil with a heat content of at least 137,000 Btu/gal, and containing no more than 0.48%, by weight sulfur, and 3%, by weight nitrogen, shall be burned in this emissions unit.

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

- (2) No fuels, other than the oil specified above and natural gas, shall be burned in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas and/or oil, as specified above, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) The permittee shall monitor the volume (i.e., the respective gallons of oil), and associated % by weight sulfur, % by weight nitrogen and Btu/gal of the oil burned in the turbine. The frequency of determination of these values shall be as follows:
 - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined by sampling each delivery prior to combining it with fuel oil already in the intended storage tank.
 - b. If the turbine is supplied fuel oil without intermediate bulk storage, the values shall be determined and recorded daily. The permittee or fuel oil vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel oil supply. These custom schedules shall be substantiated with data and must be approved by the administrator before they can be used to comply with this section.

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

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or oil, as specified above, was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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

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 Limitation:

Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the stack visible PE limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-17-03(B)(1))



b. Emission Limitation:

PE shall not exceed 0.014 pound per million Btu heat input.

Applicable Compliance Methods:

The potential to emit is equal to the above emissions limitation, as demonstrated below:

$E = 0.014 \text{ lb PE/mmBtu heat input}$ [potential emissions per AP-42, 9/98, Table 3.1-1].

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 5.

(Authority for term: OAC rule 3745-17-03(B)(9), OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

Carbon monoxide (CO) emissions shall not exceed 0.13 pound per million Btu heat input.

The potential to emit is equal to the above emission limitation, as demonstrated below:

$E = 0.13 \text{ lb CO/mmBtu heat input}$ [manufacturer's specifications, distillate oil-fired];

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 10.

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

d. Emission Limitation:

When burning gas:

Nitrogen oxides (NO_x) emissions shall not exceed 0.10 pound per million Btu heat input (25 ppmvd, mathematically adjusted to 15% oxygen as a diluent).

When burning oil:

NO_x emissions shall not exceed 0.40 pound per million Btu heat input (98 ppmvd, mathematically adjusted to 15% oxygen as a diluent).



Applicable Compliance Method:

The potential to emit is equal to the above emission limitations, as demonstrated below:

$E = 0.10 \text{ lb NO}_x/\text{mmBtu heat input}$ [manufacturer's specifications, natural gas-fired]; &

$E = 0.40 \text{ lb NO}_x/\text{mmBtu heat input}$ [manufacturer's specifications, distillate oil-fired];

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 7E.

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

e. Emission Limitation:

When burning oil:

No owner or operator of any stationary gas turbine shall cause or permit the maximum emission of sulfur dioxide from any source to exceed 0.5 pound of sulfur dioxide per MM Btu actual heat input.

Applicable Compliance Method:

The potential to emit is less than the above emission limitation, as demonstrated below:

$E = 0.48 \text{ lb SO}_2/\text{mmBtu heat input}$ [AP-42, 4/00, Table 3.1-2a, distillate oil-fired].

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 6.

(Authority for term: OAC rule 3745-18-04(F)(2), OAC rule 3745-18-04(E), OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(2) Compliance with the fuel sulfur content and nitrogen content restrictions of this permit shall be determined by any qualified person as follows:

- a. sulfur content: ASTM D 2880-71 shall be used for liquid fuels, and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for gaseous fuels. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.



- b. nitrogen content: analytical methods and procedures shall be used for the fuel burned that are accurate to within 5% and are approved by the Administrator.

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

g) **Miscellaneous Requirements**

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified Permit-to-Install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

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

2. B009, Duct Burner

Operations, Property and/or Equipment Description:

Duct burner, natural gas-fired, 76.2 million Btu per hour rated heat input, placed in the exhaust duct from a stationary gas turbine (emissions unit B008) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generator (HRSG). No emissions control employed.

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) b)(1)(d), b)(2)(c), f)(3) and g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #16-02332, final 05/11/2004) Best Available Technology (BAT)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average. PE shall not exceed 0.010 pound per million Btu heat input. Carbon monoxide (CO) emissions shall not exceed 0.080 pound per million Btu heat input. Nitrogen oxides (NO _x) emissions shall not exceed 0.10 pound per million Btu heat input. Only natural gas shall be burned in this emissions unit. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-18-06(A), 3745-31-05(D), and 40 CFR Part 60, Subpart A. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-18-06(A)	Fuel burning equipment, stationary gas

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.
c.	OAC rule 3745-31-05(D)	See term #3 of "B. Facility-Wide Terms and Conditions" above.
d.	OAC chapter 3745-110	Exempt. B009 does not produce steam and is therefore not an affected source per definition of "industrial boiler" in OAC rule 3745-110-01.
e.	40 CFR Part 60, Subpart A	The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart A (General Provisions). See b)(2)d.
f.	40 CFR Part 60, Subpart Dc	Exempt from the emission standards of this rule since only natural gas is burned.
g.	40 CFR Part 75	Exempt. See b)(2)c.
h.	OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The PE, NO_x and CO emissions limits established pursuant to OAC rule 3745-31-05(A)(3) are equal to or greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emissions limits.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final Permit-to-Install (PTI) prior to making any change to equipment, change in fuels burned, change in the method of operation, or any other change of this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 for any type of air contaminant not previously emitted.
- c. This emissions unit is exempt from the acid rain program requirements in 40 CFR Parts 72 and 75 and in OAC Chapter 3745-103 pursuant to the exemption for non-utility units specified in 40 CFR Part 72.6 (b)(8) and OAC rule 3745-103-02(B)(8).



- d. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (2) The permittee shall maintain daily records of the volume (cubic feet) of natural gas burned in this emissions unit.
- e) Reporting Requirements
 - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
 - (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance with the stack visible PE limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-17-03(B)(1))



b. Emission Limitation:

PE shall not exceed 0.010 pound per million Btu heat input.

Applicable Compliance Methods:

The potential to emit is equal to the above emission limitation, as demonstrated below:

$E = 0.010 \text{ lb PE/mmBtu heat input [manufacturer's potential to emit test data]}$;

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 5.

(Authority for term: OAC rule 3745-17-03(B)(9), OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

CO emissions shall not exceed 0.080 pound per million Btu heat input.

Applicable Compliance Method:

The potential to emit is equal to the above emission limitation, as demonstrated below:

$E = 0.080 \text{ lb CO/mmBtu heat input [manufacturer's potential to emit test data]}$;

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 10.

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

d. Emission Limitation:

NO_x emissions shall not exceed 0.10 pound per million Btu heat input.

Applicable Compliance Method:

The potential to emit is equal to the above emission limitation, as demonstrated below:

$E = 0.10 \text{ lb NO}_x\text{/mmBtu heat input [manufacturer's potential to emit test data]}$;

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 7E.

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

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified Permit-to-Install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

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

3. B010, Solar Gas Turbine GT-2

Operations, Property and/or Equipment Description:

Cogeneration stationary combustion turbine, natural gas-fired, 76.0 million Btu per hour rated heat input, drives a 7 MW rated power output electrical generator and recovers heat from the exhaust gases to generate steam in a heat recovery steam generator (HRSG). This emissions unit is a *combined heat and power combustion turbine* per the definition in 40 CFR Part 60, Subpart KKKK. No emissions control employed. This cogeneration facility is prohibited from selling electric energy to the utility power distribution system, i.e., the electrical power grid. All electric energy generated by this facility is consumed by this facility.

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) b)(1)(e), b)(2)(d) through (e), f)(4) and g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #P0116154, final 03/30/2014) Best Available Technology (BAT)	Particulate emissions (PE) shall not exceed 0.014 pound per million Btu heat input, and 4.7 tons per year. [Per the application, all PE is considered PM _{2.5}] Carbon monoxide (CO) emissions shall not exceed 0.13 pound per million Btu heat input, and 43.3 tons per year. Nitrogen oxides (NO _x) emissions shall not exceed 0.10 pound per million Btu heat input, and 33.3 tons per year Sulfur dioxide (SO ₂) emissions shall not exceed 0.034 pound per million Btu heat input, and 11.3 tons per year. Organic compound (OC) emissions shall not exceed 0.035 pound per million Btu heat input, and 11.7 tons per year. Visible PE from any stack shall not exceed 20% opacity, as a 6-minute



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>average.</p> <p>The BAT control requirement for this emissions unit has been determined to be the use of natural gas as fuel.</p> <p>The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-18-06(A) and 3745-31-05(D), and 40 CFR Part 60, Subparts A and KKKK.</p> <p>See b)(2)a. and b)(2)b.</p>
b.	OAC rule 3745-18-06(A)	<p>Fuel burning equipment, stationary gas turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.</p>
c.	OAC rule 3745-31-05(D)	<p>See term #3 of "B. Facility-Wide Terms and Conditions" above.</p>
d.	OAC Chapter 3745-103	<p>Exempt. See b)(2)c.</p>
e.	OAC chapter 3745-110	<p>Per definitions in OAC rule 3745-110-01, this stationary combined cycle gas turbine is a "Stationary combustion turbine", and is an "affected source" located at an "affected facility". This affected source is subject to either the applicable emissions limits in OAC rule 3745-110-03(E)(2)(b), or the RACT studies for stationary sources requirements of OAC rule 3745-110-03(I). This emissions unit meets the applicability requirements of OAC rule 3745-110-02(A)(1) as an existing source located in Portage County.</p> <p>The emission limit specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).</p> <p>See b)(2)(d-e)</p>
f.	40 CFR Part 60, Subpart KKKK	<p>Per § 60.4300, this subpart establishes</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005.</p> <p>Per § 60.4305(a), this subpart is applicable to any stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005. Only heat input to the combustion turbine should be included when determining whether or not this subpart is applicable to your turbine. Any additional heat input to associated heat recovery steam generators (HRSG) or duct burners should not be included when determining your peak heat input. However, this subpart does apply to emissions from any associated HRSG and duct burners.</p> <p>The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart KKKK.</p> <p>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.</p> <p>See b)(2)f through i.</p>
g.	40 CFR Part 60, Subpart A	<p>The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart A (General Provisions).</p> <p>See b)(2)i.</p>
h.	40 CFR Part 75	Exempt. See b)(2)c.
i.	40 CFR Part 60, Subpart GG	Exempt. Per § 60.4305(b), stationary

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		combustion turbines regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subpart GG of this part. Heat recovery steam generators and duct burners regulated under this subpart are exempted from the requirements of subparts Da, Db, and Dc of this part.
j.	40 CFR Part 63, Subpart YYYY	Exempt. This stationary combustion turbine is not located at a major source of HAP emissions.
k.	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The PE, NO_x, CO, SO₂ and OC emissions limits established pursuant to OAC rule 3745-31-05(A)(3) are equal to or greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emissions limits.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final Permit-to-Install (PTI) prior to making any change to equipment, change in fuels burned, change in the method of operation, or any other change of this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 for any type of air contaminant not previously emitted.
- c. This emissions unit is exempt from the acid rain program requirements in 40 CFR Parts 72 and 75 and in OAC Chapter 3745-103 pursuant to the exemption for non-utility units specified in 40 CFR Part 72.6 (b)(8) and OAC rule 3745-103-02(B)(8).
- d. B010 is subject to the NO_x RACT requirements of rule 3745-110 for a combined cycle turbine burning natural gas. Except as otherwise provided in paragraphs (I) and (J) of OAC 3745-110-03, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a stationary combined cycle combustion turbine rated at 3.5 megawatts up to, and including 25.0 megawatts, shall allow or permit the discharge into the ambient air of any NO_x emissions in excess of the following:

42.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel, for both mechanical drive and electrical generation.

- e. On May 12, 2011, Ohio's NO_x RACT rule, OAC Chapter 3745-110, became effective. However, this rule has not yet been approved by the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves OAC Chapter 3745-110, the requirements of this rule will be enforceable under state law only.
- f. Per § 60.4320(a), the permittee must meet the emission limits for NO_x specified in Table 1 to Subpart KKKK. The permittee meets the applicable emission limit with the NO_x emission limit established pursuant to BAT requirements in b)(1)(a).
- g. Per § 60.4330(a), the permittee must comply with either paragraph (a)(1), (a)(2), or (a)(3) of this section to meet the emission limit for SO₂. The permittee meets the applicable emission limit with the SO₂ emission limit established pursuant to BAT requirements in b)(1)(a).
- h. Per § 60.4333(a), the permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.
- i. 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.

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

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall comply with all applicable operational requirements under 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420).

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall comply with all applicable monitoring requirements under 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420).
- (3) Per § 60.4340(a), for this emissions unit that does not use water or steam injection to control NO_x emissions, the permittee must perform annual performance tests in accordance with § 60.4400 to demonstrate continuous compliance. If the NO_x emission

result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit for the turbine, you must resume annual performance tests.

- (4) Per § 60.4340(b), as an alternative to § 60.4340(a), the permittee may install, calibrate, maintain and operate one of the following continuous monitoring systems:
- a. Continuous emission monitoring as described in §§60.4335(b), 60.4345 and 60.4350, or
 - b. Continuous parameter monitoring, per § 60.4355, and as follows:
 - i. For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, you must define parameters indicative of the unit's NO_x formation characteristics, and you must monitor these parameters continuously.
 - ii. For any lean premix stationary combustion turbine, you must continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO_x mode.
 - iii. For any turbine that uses SCR to reduce NO_x emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
 - iv. For affected units that are also regulated under part 75 of this chapter, with state approval you can monitor the NO_x emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in §75.19, the requirements of this paragraph (b) may be met by performing the parametric monitoring described in section 2.3 of part 75 appendix E or in §75.19(c)(1)(iv)(H).
- (5) Per § 60.4360, the permittee must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in §60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17), which measure the major sulfur compounds, may be used.
- (6) Per § 60.4365, the permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for units located in continental areas and 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for units located in noncontinental areas or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. You must use one of the following sources of information to make the required demonstration:

- a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for noncontinental areas, has potential sulfur emissions of less than less than 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for noncontinental areas; or
 - b. Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for continental areas or 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for noncontinental areas. 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 part 75 of this chapter is required.
- (7) Per § 60.4370, the permittee shall refer to this section to determine how often the sulfur content of the fuel must be demonstrated.
- e) Reporting Requirements
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
 - (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
 - (3) The permittee shall comply with all applicable reporting requirements under 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420).
 - (4) Per § 60.4375, the permittee must submit reports according to following requirements:
 - a. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.
 - b. For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.
 - (5) Per § 60.4395, all reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

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:

Particulate emissions (PE) shall not exceed 0.014 pound per million Btu heat input, and 4.7 tons per year;

Carbon monoxide (CO) emissions shall not exceed 0.13 pound per million Btu heat input, and 43.3 tons per year;

Nitrogen oxides (NO_x) emissions shall not exceed 0.10 pound per million Btu heat input, and 33.3 tons per year;

Sulfur dioxide (SO₂) emissions shall not exceed 0.034 pound per million Btu heat input, and 11.3 tons per year; and

Organic compound (OC) emissions shall not exceed 0.035 pound per million Btu heat input, and 11.7 tons per year.

Applicable Compliance Methods:

The NO_x, OC and CO emission limitations above are based upon the manufacturer's performance guarantee emission factors at the maximum design specification of this emissions unit as provided in the application. Compliance with the NO_x, OC, CO, PE and SO₂ emission limitations shall be demonstrated by the emission testing required in f)(3) below and any other applicable compliance demonstrations for NO_x emissions required pursuant to 40 CFR Part 60, Subpart KKKK [See 60.4400 and 60.4405].

b. Emission Limitation:

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the stack visible PE limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

- (2) The permittee shall comply with all applicable performance testing requirements under 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300-4420).
- (3) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. the emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit;
- b. the emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for NO_x, OC, CO, PE and SO₂ when combusting natural gas in this emissions unit, as specified in b)(1)a and c)(1);
- c. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
 - i. 40 CFR Part 60, Appendix A, Methods 1 through 4;
 - ii. 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B)(9) for PE;
 - iii. 40 CFR Part 60, Appendix A, Method 7E for NO_x;
 - iv. 40 CFR Part 60, Appendix A. Method 10 for CO;
 - v. 40 CFR Part 60, Appendix A, Method 6 or 6C for SO₂; and
 - vi. 40 CFR Part 60, Appendix A, Method 18 or 25A for OC.

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Akron Regional AQMD. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA's refusal to accept the results of the emission tests.
- f. Personnel from the Ohio EPA/Akron Regional AQMD shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Akron Regional AQMD within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Akron Regional AQMD.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified Permit-to-Install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

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

4. Emissions Unit Group – Major Steam Boilers: B006, B007

EU ID	Operations, Property and/or Equipment Description
B006	Nebraska Boiler No. 6, natural gas/fuel oil-fired, 121 million Btu per hour rated heat input capacity and 100,000 pounds per hour rated steam output capacity. Natural gas is burned as primary fuel and #2 fuel oil is burned as backup fuel. No emissions control employed.
B007	Nebraska Boiler No. 7, natural gas/fuel oil-fired, 121 million Btu per hour rated heat input capacity and 100,000 pounds per hour rated steam output capacity. Natural gas is burned as primary fuel and #2 fuel oil is burned as backup fuel. No emissions control employed.

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) b)(1)(d), b)(2)(c) through (e), f)(3) and g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #16-02332, final 05/11/2004) Best Available Technology (BAT)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average. PE shall not exceed 0.020 pound per million Btu heat input. Sulfur dioxide (SO ₂) emissions shall not exceed 0.55 pound per million Btu heat input. <u>When burning gas:</u> Nitrogen oxides (NO _x) emissions shall not exceed 0.16 pound per million Btu heat input. Carbon monoxide (CO) emissions shall not exceed 0.16 pound per million Btu heat input <u>When burning oil:</u>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Nitrogen oxides (NO_x) emissions shall not exceed 0.20 pound per million Btu heat input.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.18 pound per million Btu heat input.</p> <p>The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-18-06(A), 3745-31-05(D), and 40 CFR Part 60, Subparts A and Db.</p> <p>See b)(2)a. and b)(2)b.</p>
b.	OAC rule 3745-18-06(A)	Fuel burning equipment, stationary gas turbines, jet engine test stands and stationary internal combustion engines are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code during any calendar day in which natural gas is the only fuel burned.
c.	OAC rule 3745-31-05(D)	See term #3 of "B. Facility-Wide Terms and Conditions" above.
d.	OAC chapter 3745-110	<p>Per definitions in OAC rule 3745-110-01, each emissions unit of this emissions unit group is a "Large boiler" and "affected source", located at an "affected facility". This affected source is subject to either the applicable emissions limit in OAC rule 3745-110-03(B), or the RACT studies for stationary sources requirements of OAC rule 3745-110-03(I). Each emissions unit meets the applicability requirements of OAC rule 3745-110-02(A)(1) as an existing source located in Portage County</p> <p>See b)(2)(d) through (e).</p>
e.	40 CFR Part 60, Subpart A	<p>The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart A (General Provisions).</p> <p>See b)(2)f.</p>
f.	40 CFR Part 63, Subpart JJJJJJ*	See term #4 of "B. Facility-Wide Terms and Conditions" above.
g.	40 CFR Part 75	Exempt. See b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	OAC rule 3745-17-07(A) OAC rule 3745-17-10(B) OAC rule 3745-18-06(D) 40 CFR Part 60, Subpart Db	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

* U.S. EPA's generally available control technology (GACT) and/or management practices for area source categories of HAPs, that have been implemented through the "Integrated Urban Air Toxics Strategy" (64 FR 38715) and promulgated under Section 112(d)(5) of the Clean Air Act, are regulated by the U.S.EPA.

(2) Additional Terms and Conditions

- a. The PE, SO₂, NO_x and CO emissions limits established pursuant to OAC rule 3745-31-05(A)(3) are equal to or greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emissions limits.
- b. The permittee shall apply for and, if required, obtain a modification to this permit or obtain a new final Permit-to-Install (PTI) prior to making any change to equipment, change in fuels burned, change in the method of operation, or any other change of this emissions unit that results in an increase in the allowable emissions or results in an increase in emissions of greater than the de minimis levels in OAC rule 3745-15-05 for any type of air contaminant not previously emitted.
- c. This emissions unit is exempt from the acid rain program requirements in 40 CFR Parts 72 and 75 and in OAC Chapter 3745-103 pursuant to the exemption for non-utility units specified in 40 CFR Part 72.6 (b)(8) and OAC rule 3745-103-02(B)(8).
- d. B006 and B007 are subject to the NO_x RACT requirements of rule 3745-110 for large boilers. Except as otherwise provided in paragraphs (I) and (J) of OAC 3745-110-03, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a large boiler shall allow or permit the discharge into the ambient air of any NO_x emissions in excess of the following:
 - 0.10 lb NO_x per MMBtu for large, wall-fired boilers firing gas only.
- e. On May 12, 2011, Ohio's NO_x RACT rule, OAC Chapter 3745-110, became effective. However, this rule has not yet been approved by the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves OAC Chapter 3745-110, the requirements of this rule will be enforceable under state law only.

f. 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.

g. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_x monitoring system, designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR 60.2, 40 CFR 60.13, 40 CFR 60.48b(e), and 40 CFR Part 60, Appendix F)

h. The permittee shall maintain a written quality assurance/quality control plan for the continuous O₂ monitoring system, designed to ensure continuous valid and representative readings of O₂ emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous O₂ monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR 60.2, 40 CFR 60.13, 40 CFR 60.48b(e), and 40 CFR Part 60, Appendix F)

i. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid

and representative readings of opacity and compliance with 40 CFR Part 60, Appendix B, Performance Specification 1. The plan shall include, at a minimum, procedures for conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring accurate operation of the continuous opacity monitoring system on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

The continuous opacity monitoring system consists of all the equipment used to acquire data and record opacity.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR 60.2, 40 CFR 60.13, 40 CFR 60.48b(e), 40 CFR Part 60, Appendix B and Appendix F to 40 CFR Part 60)

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or No. 2 fuel oil as fuel in this emissions unit. The No. 2 fuel oil shall contain no more than 0.48%, by weight, of sulfur and shall meet the distillate oil and very low sulfur oil definitions of 40 CFR 60.41b.

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

- (2) No fuels, other than the oil specified above and natural gas, shall be burned in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas and/or oil, as specified above, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) The permittee shall maintain fuel receipts from the fuel supplier listing the ASTM D396-78 specifications (including fuel oil number and weight percent sulfur content), and certifying that the oil meets the definitions of distillate oil and very low sulfur oil of 40 CFR 60.41b.

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

- (3) In accordance with 40 CFR Part 60.48b(a), the permittee shall calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of PE from this emissions unit discharged to the atmosphere, and record the output of the system in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain on-site the document of certification received from the U.S. EPA or the Ohio EPA's Central Office verifying that the COMS has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1, including information detailing the location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, 40 CFR 60.48b(a), and 40 CFR Part 60, Appendix B)

- (4) The permittee shall operate and maintain the COMS to continuously monitor and record the opacity of the particulate emissions from this emissions unit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the COMS including, but not limited to:

- a. percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
- b. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- c. hours of operation of the emissions unit and COMS;
- d. the date, time, and hours of operation of the emissions unit without the COMS;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the COMS; and
- f. the reason (if known) and the corrective actions taken (if any) for each such event in (d) and (e).

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, 40 CFR 60.48b(a), and 40 CFR Part 60, Appendix B)

- (5) In accordance with 40 CFR Part 60.48b(b)(1), the permittee shall calibrate, maintain and operate a continuous emission monitoring system (CEMS) for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in § 60.13.

The permittee shall maintain on-site the document of certification received from the U.S. EPA or the Ohio EPA's Central Office verifying that each CEMS has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3, including information detailing the location of the sampling sites in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3. The letter/document of certification shall be made available to the Director (the

appropriate Ohio EPA District Office or local air agency) upon request.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, 40 CFR 60.48b(b), and 40 CFR Part 60, Appendix B)

- (6) Per § 60.48b(c), the CEMS required under § 60.48b shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

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

- (7) Per § 60.48b(d), the 1-hour average NO_x emission rates measured by the continuous NO_x monitor required by § 60.48b(b)(1) and required under § 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.44b. The 1-hour averages shall be calculated using the data points required under § 60.13(h)(2).

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

- (8) Span values for NO_x shall be determined in accordance with §60.48b(e).

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

- (9) Per § 60.48b(f), when NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

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

- (10) In accordance with 40 CFR 60.49b(g), the permittee shall maintain records of the following information for each steam generating unit operating day:

- a. calendar date;
- b. the average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBtu heat input) measured or predicted;
- c. the 30-day average NO_x emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
- b. identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

- c. identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- d. identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- e. identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
- f. identification of the times when the pollutant concentration exceeded full span of the CEMS;
- g. description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;
- h. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments; and
- i. results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), 40 CFR 60.13, 40 CFR 60.48b(b), and 40 CFR Part 60, Appendices B & F)

- (11) In addition to the information recorded in d)(10) above, the permittee shall maintain quarterly records of the following information concerning the NO_x CEMS:
- a. results of quarterly cylinder gas audits;
 - b. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
 - c. hours of operation of the emissions unit and CEMS;
 - d. the date, time, and hours of operation of the emissions unit without the CEMS;
 - e. the date, time, and hours of operation of the emissions unit during any malfunction of the CEMS; and
 - f. the reason (if known) and the corrective actions taken (if any) for each such event in (e) and (f).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), 40 CFR 60.13, 40 CFR 60.48b(b), and 40 CFR Part 60, Appendices B & F)

- (12) The permittee shall operate and maintain equipment to continuously monitor and record O₂ emitted from this emissions unit in percent O₂. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous O₂ monitoring system including, but not limited to:

- a. the percent O₂ with each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. results of quarterly cylinder gas audits;
- c. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- d. results of required relative accuracy test audit(s);
- e. hours of operation of the emissions unit, continuous O₂ monitoring system;
- f. the date, time, and hours of operation of the emissions unit without the continuous O₂ monitoring system;
- g. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous O₂ monitoring system; and
- h. the reason (if known) and the corrective actions taken (if any) for each such event in (f) and (g).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, 40 CFR 60.48b(b), and 40 CFR Part 60, Appendix B)

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or oil, as specified above, was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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

- (3) The permittee shall submit quarterly reports certifying no fuel, except as specified above, was burned in this emissions unit during the preceding calendar quarter.

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

- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NOx monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7, 60.13(h), 60.49b(g) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NOx emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14, 3745-23, 3745-110 and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

- i. the facility name and address;
- ii. the manufacturer and model number of the continuous NOx and other associated monitors;
- iii. a description of any change in the equipment that comprises the CEMS, including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total NOx emissions for the calendar quarter (tons);
- vi. the total operating time (hours) of the emissions unit;
- vii. the total operating time of the continuous NOx monitoring system while the emissions unit was in operation;
- viii. results and dates of quarterly cylinder gas audits;
- ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NOx monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous NOx monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous NOx monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), 40 CFR 60.49b, and 40 CFR 60.7)

- (5) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its COMS:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7, 60.13(h), 60.49b(f) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance.
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous opacity monitor;
 - iii. a description of any change in the equipment that comprises the COMS, including any change to the hardware, changes to the software that may

affect COMS readings, and/or changes in the location of the COMS sample probe;

- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total operating time (hours) of the emissions unit;
- vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
- vii. the date, time, and duration of any/each malfunction** of the continuous opacity monitoring system, emissions unit, and/or control equipment;
- viii. the date, time, and duration of any downtime** of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
- ix. the reason (if known) and the corrective actions taken (if any) for each event in (b)(vii) and (viii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no exceedance of the opacity limit has occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the quarterly EER report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of the opacity limit

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.49b, and 40 CFR 60.7)

- (6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous O₂ monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of continuous O₂ monitoring system downtime and malfunction while the emissions unit was on line.
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous O₂ and other associated monitors;

- iii. a description of any change in the equipment that comprises the CEMS, including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
- iv. the total operating time (hours) of the emissions unit;
- v. the total operating time of the continuous O₂ monitoring system while the emissions unit was in operation;
- vi. results and dates of quarterly cylinder gas audits;
- vii. unless previously submitted, results and dates of the relative accuracy test audit(s) (during appropriate quarter(s));
- viii. unless previously submitted, the results of any relative accuracy test audit showing the continuous O₂ monitor out-of-control and the compliant results following any corrective actions;
- ix. the date, time, and duration of any/each malfunction* of the continuous O₂ monitoring system while the emissions unit was in operation;
- x. the date, time, and duration of any downtime* of the continuous O₂ monitoring system while the emissions unit was in operation; and
- xi. the reason (if known) and the corrective actions taken (if any) for each event in (b)(ix) and (x).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

*each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.49b, and 40 CFR 60.7)

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 using applicable emission factors from US EPA reference document AP-42, Fifth Edition, Tables 1.3-1, 1.4-1, and 1.4-2, and heat contents of 137,000 Btu/gallon of oil & 1000 Btu/cubic foot of gas::

a. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average.



Applicable Compliance Method:

Ongoing compliance with the opacity limitation contained in this permit and 40 CFR Part 60, Subpart Db, shall be demonstrated through the data collected as required in the Monitoring and/or Recordkeeping Requirements section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

If required, compliance with the stack visible PE limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, and 40 CFR Part 60, Appendix B and OAC rule 3745-17-03(B)(1))

b. Emission Limitation:

PE shall not exceed 0.020 pound per million Btu heat input.

Applicable Compliance Methods:

The potential to emit is less than the above emission limitation, as demonstrated in the equations below:

when burning gas:

$$E = GP/H$$

where,

E = 0.0019 lb PE/mmBtu heat input [potential to emit];

G = 0.121 mm cu ft/hr [design fuel usage];

P = 1.9 lbs PE/mm cu ft [emission factor]; and

H = 121 mmBtu/hr [design heat input capacity].

when burning oil:

$$E = OP/H$$

where,

E = 0.01 lb PE/mmBtu heat input [potential to emit];

O = 883 gals/hr [design fuel usage];

P = 2 lbs PE/1000 gals [emission factor]; and

H = 121 mmBtu/hr [design heat input capacity].

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 5.

(Authority for term: OAC rule 3745-17-03(B)(9), OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))



c. Emission Limitation:

SO₂ emissions shall not exceed 0.55 pound per million Btu heat input.

Applicable Compliance Method:

The potential to emit is equal to the above emission limitation, as demonstrated in the equation below:

When burning gas:

Compliance with this limitation will be assumed due to the negligible % sulfur content of natural gas.

When burning oil:

$$E = OS/H$$

where,

E = 0.55 lb SO₂/mmBtu heat input [potential to emit];

O = 883 gals/hr [design fuel usage];

S = 75.36 lbs SO₂/1000 gals [emission factor]; and

H = 121 mmBtu/hr [design heat input capacity].

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 6.

(Authority for term: OAC rule 3745-18-04(F)(2), OAC rule 3745-18-04(E), OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

d. Emission Limitations:

When burning gas:

NO_x emissions shall not exceed 0.16 pound per million Btu heat input.

When burning oil:

NO_x emissions shall not exceed 0.20 pound per million Btu heat input.

Applicable Compliance Method:

Ongoing compliance with the NO_x emission limitations contained in this permit, 40 CFR Part 60 and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.



If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 7E.

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

e. Emission Limitations:

When burning gas:

CO emissions shall not exceed 0.16 pound per million Btu heat input.

When burning oil:

CO emissions shall not exceed 0.18 pound per million Btu heat input.

Applicable Compliance Method:

The potential to emit is less than the above emission limitations, as demonstrated in the equations below:

when burning gas:

$$E = GC/H$$

where,

E = 0.084 lb CO/mmBtu heat input [potential to emit];

G = 0.121 mm cu ft/hr [design fuel usage];

C = 84 lbs CO/mm cu ft [emission factor]; and

H = 121 mmBtu/hr [design heat input capacity].

when burning oil:

$$E = OC/H$$

where,

E = 0.04 lb CO/mmBtu heat input [potential to emit];

O = 883 gals/hr [design fuel usage];

C = 5 lbs CO/1000 gals [emission factor]; and

H = 121 mmBtu/hr [design heat input capacity].

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 10.

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

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

a. Unless required in advance, the emissions testing shall be conducted in the period 18 to 6 months prior to permit expiration.

- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO_x, in the appropriate averaging period(s), while burning the primary fuel (currently, natural gas).
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Methods 1 - 4 and 7E.

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

- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

- (3) Pursuant to the requirements of OAC rule 3745-110-05, any owner or operator of a source which is subject to the requirements of rule 3745-110-03 of the Administrative Code shall demonstrate, or have demonstrated, compliance with the applicable

emissions limit(s) by performing emission tests or using a continuous emissions monitoring system, as specified below:

Per OAC rule 3745-110-05(B), compliance shall be demonstrated using any continuous emissions monitoring system for NO_x that is employed to ensure ongoing compliance with an applicable emission limitation shall meet the requirements of Performance Specification 2, 40 CFR Part 60, Appendix B and quality assurance procedures contained in 40 CFR Part 60, Appendix F or 40 CFR Part 75. The continuous emission monitoring system shall be certified at least three months prior to a demonstration of compliance with the applicable emissions limit(s).

- (4) In accordance with section 5.1 *Auditing Requirements* of Appendix F to 40 CFR Part 60—Quality Assurance Procedures, each gas CEMS used for compliance determination must be audited at least once each calendar quarter. Successive quarterly audits shall occur no closer than 2 months. The audits shall be conducted as follows:

Relative Accuracy Test Audit (RATA). The RATA must be conducted at least once every four calendar quarters, except as otherwise noted in section 5.1.4 of this appendix. Conduct the RATA as described for the RA test procedure in the applicable PS in appendix B (e.g., PS 2 for SO₂ and NO_x). In addition, analyze the appropriate performance audit samples received from EPA as described in the applicable sampling methods (e.g., Methods 6 and 7).

Cylinder Gas Audit (CGA). If applicable, a CGA may be conducted in three of four calendar quarters, but in no more than three quarters in succession.

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

- (5) For each required RATA, the permittee shall conduct certification tests of the continuous NO_x and O₂ monitoring systems in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Recertification of the continuous NO_x and O₂ monitoring systems shall be granted upon determination by the Ohio EPA, Central Office that the systems meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; and ORC section 3704.03(I).

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), 40 CFR 60.13, and 40 CFR Part 60, Appendices B & F)

- (6) As specified in section 5.3 *Performance audits* of METHOD 203—DETERMINATION OF THE OPACITY OF EMISSIONS FROM STATIONARY SOURCES BY CONTINUOUS OPACITY MONITORING SYSTEMS, checks of the individual COMS components and factors affecting the accuracy of the monitoring data, as described in this method, shall be conducted on a quarterly basis. Examples of detailed audit procedures may be found in Reference 1, "Performance Audit Procedures for Opacity Monitors", and Reference 2, "CEMS Pilot Project: Evaluation of CEMS Reliability and QA Procedures Volume 1". Absolute minimum checks that shall be included in each performance audit are identified in section 5.3 of Method 203. The performance assessment criteria specified in section 5.5.1 of Method 203 shall be used for determining acceptable performance of and out-of-control periods for the COMS during each performance audit.

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

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified Permit-to-Install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

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