



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

3/14/2013

Certified Mail

Mr. Jan-Arthur Utrecht  
University of Cincinnati  
University of Cincinnati  
P.O. Box 210218  
Cincinnati, OH 45221-0218

Facility ID: 1431070849  
Permit Number: P0109189  
County: Hamilton

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT  
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio Environmental Protection Agency (EPA) Preliminary Proposed Title V permit that was issued in draft form on 12/20/2012. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
50 West Town Street, Suite 700  
P.O. Box 1049  
Columbus, Ohio 43216-1049

and Southwest Ohio Air Quality Agency  
250 William Howard Taft Rd.  
Cincinnati, OH 45219

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments. If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

*Michael W. Ahern*  
Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Southwest Ohio Air Quality Agency





## Response to Comments

Facility ID:	1431070849
Facility Name:	University of Cincinnati
Facility Description:	Central Utility and East Campus Utility Plants (CUP & ECUP)
Facility Address:	Clifton Campus Cincinnati, OH 45221 Hamilton County
Permit:	P0109189, Title V Permit - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Cincinnati Enquirer on 12/22/2012. The comment period ended on 01/21/2013.	
Hearing date (if held)	NA
Hearing Public Notice Date (if different from draft public notice)	NA

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

### Comments from University of Cincinnati (UC), dated 1/18/2013:

#### 1. Topic: Removal of Various Insignificant Emission Units (IEUs)

- a. Comment: Insignificant emission units B008, B011, B014, B017, B018, P048, and P045 listed on pages 17-19 have been shutdown or are not associated with the UC facility subject to this Title V permit renewal action and should be removed from the permit terms in Section B. UC will update the facility information to correct the status of these IEUs.

Response: Ohio EPA will remove the IEUs from the renewal permit action upon update of the facility profile by the permittee.

#### 2. Topic: Emissions Unit B103 – Rule Exemption Under 3745-17-07(A)(3)

- a. Comment: Request that language be added per OAC rule 3745-17-07(A)(3) for exemption from visible emission requirements based on exhaust gas temperature during startup and shutdown.

Response: On pages 26-27 of the draft permit, term and condition d)(2) for this emissions unit addresses the exemption requirements under OAC rule 3745-17-07(A)(3). OhioEPA will agree to add the temperature value from the OAC rule in term d)(2).



**3. Topic: Emissions Units B103, B105, and B108 – Continuous Opacity Monitoring (COM)**

- a. Comment: There appears to be no basis for the COMs requirement on emissions unit B105 as listed in term d)(4) for emission unit B103 and in term d)(11) for emissions unit B108. If the requirement is based upon the common stack, then B105 should be excluded from the COMs requirement. Otherwise, terms and conditions for the COMs should be included under emissions unit B105.

Response: The basis for the common stack COMs requirement is established in the federally-enforceable Permit to Install #P0108825 for emissions unit B108, issued on 12/22/2011. Pursuant to term d)(9) of that PTI, the visible emission limitation applies to each individual boiler as monitored at the common stack. OhioEPA agrees that the term should be included under emissions unit B105 and will make this correction in the permit.

**4. Topic: Consistency of Quarterly Reporting Due Dates**

- a. Comment: Request that the quarterly reporting due dates throughout the permit terms be revised to January 31, April 30, July 31, and October 31 for consistency.

Response: In most cases, the due dates are based upon federal rules, such as the New Source Performance Standards (NSPS). The federal rules typically mandate the reports be submitted by the 30 day of the month; therefore, OhioEPA cannot agree to make the requested changes within the permit.

**5. Topic: Emissions Unit B105 – Testing Requirements**

- a. Comment: Request that the testing requirement terms f)(1)b. and f)(1)c. for particulate and sulfur dioxide (SO<sub>2</sub>) be revised to be consistent with emissions unit B109.

Response: Ohio EPA will agree to revise term f)(1)c. for the SO<sub>2</sub> compliance method to be consistent with emission unit B109. Unlike emissions unit B109, the particulate emission limitations for emission unit B105 are based upon the OAC rule limit in 3745-17-10, not an AP-42 emissions factor. Therefore, Ohio EPA disagrees with the suggested changes to term f)(1)b. and will not make any revisions to this term.

**6. Topic: Emissions Unit B108 – Baghouse Pressure Drop Range**

- a. Comment: What is the origin of the pressure drop range of 1 to 7 inches of water in term d)(7)? Request that this term be changed to match the pressure drop term in the PTI for this emissions unit (PTI #P0108825) if acceptable under Compliance Assurance Monitoring (CAM).

Response: The manufacturer information and pressure drop range for the baghouse was included in the UC Title V renewal application under the control equipment description for emissions unit B108. This information can also be found under the Air Services facility profile for the control equipment (baghouse) associated with emissions unit B108. The terms contained in PTI #P0108825 were not established to comply with the requirements of CAM. Under the CAM requirements in 40 CFR 64.3, an indicator range must be established within the Title V permit that reflects proper operation and maintenance of the baghouse. If UC needs to revise this indicator range based upon future emissions testing, such revisions are provided for in the last paragraph of term d)(8) for emissions unit B108. Therefore, Ohio EPA disagrees with the suggested changes to term d)(7) and will not make any revisions to this term.



**7. Topic: Emissions Unit B108 – Particulate Testing**

- a. Comment: Request that term f)(2) clarify that the particulate testing requirement is when burning coal.

Response: Ohio EPA agrees with this comment and will make the change in the permit.

**8. Topic: Annual Reporting**

- a. Comment: Request in term e)(4) for emissions unit B109 and term e)(2) for emissions units P001 and P002 that UC be allowed the option to satisfy the annual reporting requirement within the annual fee emissions report due by April 15th.

Response: Ohio EPA will agree to this reporting option and will make the change in the permit.

**9. Topic: Emissions Unit B109 – Visible Emissions Testing**

- a. Comment: Request that term f)(1)a. for emissions unit B109 be revised to clarify that Method 9 visible emission observations are not required.

Response: Ohio EPA will agree to clarify that Method 9 visible emissions will not be required when the emissions unit is combusting natural gas. However, the emissions units must comply with the opacity requirements of the NSPS Subpart Dc when combusting fuel oil, including performance testing and emission monitoring to demonstrate compliance. Ohio EPA will revise term f)(1)a. to stipulate that Method 9 and the associated Subpart Dc requirements apply when the emissions unit combusts fuel oil.

**10. Topic: Emissions Unit P005 – Deviation Reporting**

- a. Comment: The deviation reporting required by 40 CFR Part 63, Subpart ZZZZ should be added to the reporting requirements for emissions unit P005 identical to the d)(4) and d)(5) terms under emissions unit P007.

Response: The reporting terms d)(4) and d)(5) for emissions unit P007 were established under PTI #14-05757. These terms are more stringent than the federal rules (i.e. quarterly reporting) and are not identical or reflective of all the requirements in 40 CFR Part 63, Subpart ZZZZ, 63.6650(a)-(f), for periodic deviation and compliance reports. Emissions unit P005 has no such underlying quarterly deviation reporting requirements in the active PTI #14-05108, therefore, the PTI-specific terms under emissions unit P007 are not applicable to the Title V renewal for P005. Emissions unit P005 must comply with the federal rule requirements as cited in term d)(3), which includes the reporting dates and report content requirements of 63.6650(a)-(f). No changes will be made to the permit terms for P005.

**11. Topic: Emissions Units P003 and P004 – NOx Record Keeping and Visible Emissions Testing**

- a. Comment: Term d)(6)b. for emissions units P003 and P004 should include record keeping for NOx emissions in pounds per mmBtu.

Response: Ohio EPA agrees with this comment and will make the change in the permit.



- b. Comment: Request that term f)(1)c. clarify that Method 9 readings are not specifically required to avoid confusion with the required weekly visible emission checks performed for this emissions unit.

Response: Ohio EPA agrees with this comment and will make the change in the permit.

**12. Topic: Emissions Units P001 and P002 – Emissions Testing**

- a. Comment: Request that term f)(1)a. clarify that emissions testing for the listed pollutants will occur if required upon request by the agency.

Response: Ohio EPA agrees with this comment and will make the change in the permit.

**13. Topic: Emissions Units B103, B105, B108, B109, B019, and B020 – Boiler MACT**

- a. Comment: Request that the terms related to the Boiler MACT throughout the permit be revised for the publication of the final Reconsideration amendments.

Response: The final rule amendments to the Boiler MACT were published on January 31, 2013. Ohio EPA agrees with this comment and will make the changes in the permit.

- b. Comment: Request that the references to the specific Boiler MACT subcategories in b)(1) be removed from the permit terms to allow for flexibility of emissions unit operation as allowed under the rule.

Response: Under the Boiler MACT rule as promulgated, UC has the flexibility to operate affected existing multi-fuel boilers under different subcategories, with different emissions standards and operating requirements, depending on the primary fuel usage of the boiler. Ohio EPA guidance requires identification of the federal rule subcategories within Title V permit actions pursuant to Engineering Guide #76. Ohio EPA will agree to identify in the permit terms all the MACT subcategories under which the permittee may operate the existing emissions unit. Ohio EPA will also add an additional permit term clarifying that, in some cases, fuel switching could trigger a Chapter 31 modification under OAC rules.



## **PRELIMINARY PROPOSED**

### **Division of Air Pollution Control Title V Permit for University of Cincinnati**

Facility ID:	1431070849
Permit Number:	P0109189
Permit Type:	Renewal
Issued:	3/14/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





**Division of Air Pollution Control**  
**Title V Permit**  
for  
University of Cincinnati

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## Authorization

Facility ID: 1431070849  
Facility Description: Central Utility and East Campus Utility Plants (CUP & ECUP)  
Application Number(s): A0029892, A0029893, A0029894, A0037873, A0041753, A0041982  
Permit Number: P0109189  
Permit Description: Renewal Title V Operating Permit for the University of Cincinnati Campus, Central Utility and East Campus Utility Plants (CUP & ECUP) which includes coal, gas, and oil-fired boilers, turbines and diesel engines that provide heat and power to the university.  
Permit Type: Renewal  
Issue Date: 3/14/2013  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Superseded Permit Number: P0098229

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

University of Cincinnati  
Clifton Campus  
Cincinnati, OH 45221

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

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

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Southwest Ohio Air Quality Agency. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally  
Director



**Preliminary Proposed Title V Permit**  
University of Cincinnati  
**Permit Number:** P0109189  
**Facility ID:** 1431070849  
**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**



**1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
  - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
  - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting
  - (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

*(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 (i.e., postmarked) 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 scheduled maintenance, 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 promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the



insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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

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

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

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

- (4) Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

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

- (5) Reports of any required monitoring and/or record keeping information shall be submitted to Southwest Ohio Air Quality Agency.

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

### **3. 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) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition 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 appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (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 appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
  - (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.
  - (2) Compliance certifications shall include the following:
    - a. An identification of each term or condition of this permit that is the basis of the certification.
    - b. The permittee's current compliance status.
    - c. Whether compliance was continuous or intermittent.



- d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.
  - 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 appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

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

#### **16. Emergencies**

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

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



## **17. Off-Permit Changes**

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

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

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

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

## **18. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 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 has 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.

No emissions unit 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 opening 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 appropriate Ohio EPA District Office or local air agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (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 appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**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**

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 appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**28. Permit Transfers**

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

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

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) 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 potentials to emit; or
- c) where the company's responsible official has certified that an emissions unit has been permanently shut down.



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## **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, and 3745-21, and/or 40 CFR Part 60 or 63:
  - B008 Gas-fired boilers/water heaters <3 mmBtu/hour; Faculty Club
  - B011 2.5 mmBtu/hour gas-fired Bryan water heater; Morgans Hall
  - B014 2.5 mmBtu/hour gas-fired Bryan water heater; Scioto Hall
  - B017 5.2 mmBtu/hour gas-fired boiler 1; Campus Service Building
  - B018 5.2 mmBtu/hour gas-fired boiler 2; Campus Service Building
  - F001 Coal and wood receiving and handling system; ECUP [Permit to Install 14-485]
  - N005 200 pounds/hour batch loaded pathological waste incinerator [Permit to Install 14-3547]
  - P017 890 hp Caterpillar emergency generator; Cardiovascular Building [PBR04551]
  - P019 250 hp John Deere emergency generator; French East Building [PBR04553]
  - P020 204 hp Onan/John Deere emergency generator; Eden Garage [PBR04554]
  - P021 268 hp Kohler/Detroit Diesel emergency generator; HPB [PBR04555]
  - P022 175 hp Caterpillar emergency generator; Kettering Building [PBR04556]
  - P023 760 hp Cummins emergency generator; IEH Kettering Addition [PBR04557]
  - P024 166 hp Cummins emergency generator; Proctor Hall [PBR04558]
  - P025 135 hp Cummins emergency generator; Eden Garage [PBR04559]
  - P026 349 hp Caterpillar emergency generator; University Hall [PBR04560]
  - P027 830 hp Detroit Diesel emergency generator; Vontz Center [PBR04561]
  - P028 268 hp Caterpillar emergency generator; SRU Building [PBR04662]
  - P029 536 hp Cummins emergency generator; CUP portable [PBR04563]
  - P031 1850 hp Cummins emergency generator; ERC Building [PBR04565]
  - P032 375 hp Cummins emergency generator; Langsam Library [PBR04566]



- P033 1180 hp Caterpillar emergency generator; Lindner Center [PBR04567]
- P034 449 hp Caterpillar emergency generator; Blegen Library [PBR04568]
- P035 605 hp Caterpillar emergency generator; Calhoun Garage [PBR04569]
- P036 474 hp Detroit Diesel emergency generator; CCM [PBR04570]
- P038 465 hp Cummins emergency generator; Edwards Center [PBR04572]
- P039 266 hp Caterpillar emergency generator; Geo-Physics Building [PBR04573]
- P040 355 hp Cummins emergency generator; Lindner Hall CoB [PBR04574]
- P041 755 hp Cummins emergency generator; Memorial Hall [PBR04575]
- P042 755 hp Cummins emergency generator; University Ave. Garage [PBR04576]
- P043 535 hp Cummins emergency generator; Rhodes Hall [PBR04577]
- P044 470 hp Detroit Diesel emergency generator #1; Rieveschl Garage [PBR04578]
- P045 277 hp Cummins emergency generator; Sander Hall [PBR04579]
- P046 268 hp Detroit Diesel emergency generator; University College [PBR04580]
- P047 Ford natural gas-fired emergency generator; Old Chemistry Building [PBR04581]
- P048 135 hp Cummins emergency generator; CAS Campus [PBR04582]
- P049 755 hp Cummins emergency generator #2; Rieveschl Garage [PBR04583]
- P050 1500 kW Caterpillar emergency generator; TUC Building [PBR10109]
- P052 300 hp Caterpillar emergency generator; CUP portable [PBR06872]
- P053 150 kW Detroit Diesel emergency generator; Stratford Heights [PBR07722]
- P054 266 hp Caterpillar emergency generator; UCIT [PBR07944]
- P058 3675 hp Kohler emergency generator; MSB [PBR08259]
- P060 385 hp John Deere emergency generator; Sander Hall [PBR09260]
- P901 Ash Handling System [Permit to Install 14-485]
- T003 30,000 gallon underground storage tank #3; CUP [Permit to Install 14-2107]
- T004 30,000 gallon underground storage tank #3A; CUP [Permit to Install 14-2107]
- T005 30,000 gallon underground storage tank #4; CUP [Permit to Install 14-2107]



- T006 30,000 gallon underground storage tank #4A; CUP [Permit to Install 14-2107]
- T007 30,000 gallon underground storage tank #5; CUP [Permit to Install 14-2107]
- T008 30,000 gallon underground storage tank #5A; CUP [Permit to Install 14-2107]
- T102 15,000 gallon underground storage tank; ECUP [Permit to Install 14-1494, formerly T002 under premise 1431070207, serving emission units P007 and P008]
- T103 30,000 gallon underground storage tank #1; ECUP [Permit to Install 14-4214, formerly T003 under premise 1431070207]
- T104 30,000 gallon underground storage tank #2; ECUP [Permit to Install 14-4214, formerly T004 under premise 1431070207]
- T105 30,000 gallon underground storage tank #3; ECUP [Permit to Install 14-4214, formerly T005 under premise 1431070207]
- T106 30,000 gallon underground storage tank #4; ECUP [Permit to Install 14-4214, formerly T006 under premise 1431070207]
- T107 30,000 gallon underground storage tank #5; ECUP [Permit to Install 14-4214, formerly T007 under premise 1431070207]
- T108 30,000 gallon underground storage tank #6; ECUP [Permit to Install 14-4214, formerly T008 under premise 1431070207]
- T109 30,000 gallon underground storage tank #7; ECUP [Permit to Install 14-4214, formerly T009 under premise 1431070207]
- T110 30,000 gallon underground storage tank #8; ECUP [Permit to Install 14-4214, formerly T010 under premise 1431070207]

3. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts A and DDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAP) Industrial, Commercial, and Institutional Boilers and Process Heaters: B008, B011, B014, B017, B018, B019, B020, B103, B105, B108, and B109. 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.

(Authority for term: 40 CFR Part 63)

4. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts A and ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines: P005, P007, P008, P019, P020, P021, P022, P024, P025, P026, P028, P032, P033, P034, P035, P036, P038, P039, P040, P044, P045, P046, P047, P048, P052, P053, P054, and P058. 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.

(Authority for term: 40 CFR Part 63)

5. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subparts A and III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS): P060. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

(Authority for term: 40 CFR Part 60)

6. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subparts A and Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (NSPS): B019 and B020. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

(Authority for term: 40 CFR Part 60)

7. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subparts A and Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (NSPS): B109. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

(Authority for term: 40 CFR Part 60)

8. The Southwest Ohio Air Quality Agency has approved the Compliance Assurance Monitoring (CAM) plan submitted by the permittee, pursuant to 40 CFR Part 64, for emissions units B103 and B108. The permittee shall comply with the provisions of the plan (as specified in Part C - Terms and Conditions for Emissions Units) during any operation of the aforementioned emissions units.

Pursuant to 40 CFR 64.2(b), CAM will not apply to the MACT emission limitations or standards in 40 CFR Part 63, Subpart DDDDD, after the compliance date in that rule.

(Authority for term: 40 CFR Part 64)

9. The following abbreviations are used throughout this permit.

NO<sub>x</sub> = Nitrogen Oxides

CO = Carbon Monoxide

OC = Organic Compounds

VOC = Volatile Organic Compounds



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

PM<sub>10</sub> = Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix J and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53

PM<sub>2.5</sub> = Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix L and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53

SO<sub>2</sub> = Sulfur dioxide

HAP = Hazardous Air Pollutant

TPY = Tons per year

mmBtu = million British thermal units

PTI = Permit to Install

CFR = Code of Federal Regulations

OAC = Ohio Administrative Code

ORC = Ohio Revised Code



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## **C. Emissions Unit Terms and Conditions**



**1. B103, ECUP Boiler #4**

**Operations, Property and/or Equipment Description:**

68 mmBtu/hour coal-fired spreader stoker boiler, equipped with an electrostatic precipitator (ESP) [This emissions unit was formerly identified as B003 under facility ID 1431070207 and has been incorporated into the facility ID indicated above as emissions unit B103.]

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	<p>OAC rule 3745-31-05(A)(3)  (PTI 14-384, issued 11/13/1981)</p>	<p>PE shall not exceed 0.18 pound per mmBtu of actual heat input.</p> <p>The particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3) is less stringent than the emission limitation established pursuant to 40 CFR Part 63, Subpart DDDDD. The permittee shall comply with all applicable emission limitations (including any less stringent emission limitation) after the compliance date in 40 CFR Part 63, Subpart DDDDD.</p> <p>SO<sub>2</sub> emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.</p> <p>The SO<sub>2</sub> emission limitation established pursuant to this rule within PTI 14-384 is less stringent than the subsequent SO<sub>2</sub> emission limitation established in OAC rule 3745-18-37(H)(1) for this emissions unit. The permittee shall comply with all applicable emission limitations (including any less stringent emission limitation).</p> <p>See b)(2)b. and b)(2)c.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Compliance with this rule includes compliance with the requirements of OAC rule 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.  See d)(2).
c.	OAC rule 3745-17-10(C)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-37(H)(1)	SO <sub>2</sub> emissions shall not exceed 1.45 pounds per mmBtu of actual heat input.  See b)(2)a.
e.	<p>40 CFR Part 63, Subpart DDDDD (40 CFR Part 63.7480-7575)</p> <p>National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters</p> <p>[In accordance with 40 CFR 63.7499 and 63.7575, this emissions unit is an existing spreader stoker designed to burn coal. Therefore, the unit is subject to the subcategory requirements for units designed to burn solid fuel, units designed to burn coal/solid fossil fuel, and stokers designed to burn coal/solid fossil fuel as defined in this subpart. The permittee shall comply with the emission limitations and operating limitations for the applicable subcategories specified in this section.]</p>	<p>Applicable Emission Limits in Table 2; Work Practice Standards in Table 3; and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63.</p> <p>Pursuant to 40 CFR 63.7495(b), the permittee shall comply with this subpart no later than January 31, 2016, except as provided in 63.6(i).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR Part 63.1-15 (40 CFR 63.7565)	Table 10 to 40 CFR Part 63, Subpart DDDDD – Applicability of General Provisions (Subpart A) to Subpart DDDDD shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply.
g.	40 CFR Part 64 (40 CFR 64.1-10)  Compliance Assurance Monitoring (CAM)	See b)(2)d., b)(2)e., b)(2)f., d)(3) - d)(12), e)(2) – e)(5), and f)(2).  Pursuant to 40 CFR 64.2(b), CAM will not apply to the MACT emission limitations or standards in 40 CFR Part 63, Subpart DDDDD, after the compliance date in that rule.

(2) Additional Terms and Conditions

- a. The quality of the coal burned in this emissions unit shall meet a sulfur content specification which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.45 pounds SO<sub>2</sub>/mmBtu actual heat input; on an as burned wet basis. Compliance shall be determined by the weekly coal sampling and analysis as specified in d)(1).
- b. The emissions from this emissions unit shall be vented to the electrostatic precipitator (ESP) at all times the emissions unit is in operation.
- c. The permittee shall maintain an operations and maintenance plan for the emissions unit and ESP that is consistent with the manufacturer's recommendations. Records of inspection and maintenance activities for the emissions unit and ESP shall be maintained in accordance with the written operations and maintenance plan.
- d. 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.

(Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR 60.13, 40 CFR Part 60, Appendix B, and 40 CFR Part 64)



- e. 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, Appendix B to 40 CFR Part 60, and 40 CFR Part 64)

- f. At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR Part 64)

c) **Operational Restrictions**

- (1) The coal burned in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of sulfur dioxide per million Btu of heat content, complies with the allowable sulfur dioxide emission limitation contained in this permit.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-18-04(D))

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

- (1) The permittee shall conduct coal sampling and analysis for emissions units B103 and B108 in accordance with Method 19 of 40 CFR Part 60, Appendix A, and the requirements of OAC rule 3745-18-04(D)(8)(d)(v) as follows:

- a. The permittee shall collect one representative sample per week of the coal burned in these emissions units.
- b. The coal sample shall consist of at least one sample increment per boiler and each increment shall weigh a minimum of five pounds each.
- c. The coal sample shall be analyzed for sulfur content (weight percent) and heat content/gross calorific value (Btu/pound) in accordance with the ASTM methods specified in Method 19 of 40 CFR Part 60, Appendix A, Section 12.5.2.1.

The permittee shall maintain records of the coal analyses referenced above and the sulfur dioxide emission rate for each representative coal sample calculated using the formula specified in OAC rule 3745-18-04(F)(1).

(Authority for term: OAC rule 3745-18-04(D)(8)(d)(v) and OAC rule 3745-77-07(C)(1))

- (2) To obtain an exemption from the visible emission limitation specified in b)(1)b. pursuant to OAC rule 3745-17-07(A)(3)(a)(i) or (A)(3)(b)(i), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the ESP (a) during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i) of 250 degrees Fahrenheit, and (b) during all periods of shutdown until the inlet temperature of the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i) of 250 degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be



maintained. The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

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

- (3) 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 continuous opacity monitoring system has been certified to meet the requirements of 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.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

(Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, 40 CFR Part 60, Appendix B, and 40 CFR Part 64)

- (4) The permittee shall operate and maintain the continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from the common stack serving emissions units B103, B105, and B108. The opacity of the visible particulate emissions from emissions units B103, B105, and B108 shall be monitored in the combined stack for the three boilers and the visible particulate emission limitation specified in b)(1)b. applies to each individual boiler as monitored at the common stack. An exceedance of the visible emission limitation in b)(1)b. as measured at the common stack does not necessarily constitute an exceedance of the emission limitation for all boilers. 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 continuous opacity monitoring system 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, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;



- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- 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 Part 60, Appendix B, and 40 CFR Part 64)

- (5) In order to maintain compliance with the applicable emission limitations contained in this permit, the average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

(Authority for Term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (6) The permittee shall operate and maintain equipment to continuously monitor the secondary voltage, in kilovolts, and the secondary current, in milliamps, for each of the fields within the ESP when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the secondary voltage and the secondary current for each of the fields within the ESP, the power input (in kilowatts) of each field within the ESP (calculated by multiplying the secondary voltage by the secondary current for each field), and the total combined power input to the ESP (the sum of the calculated power inputs to each field) on an hourly basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee

(Authority for Term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (7) The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time, when the controlled emissions unit is in operation, during which the total combined power input (in kilowatts) to all fields of the ESP was less than 90 percent of the average total combined power input during the most recent performance test that demonstrated the emissions unit was in compliance; and
  - b. a log (date and total time) of the downtime or bypass of the ESP, and/or downtime of the ESP monitoring equipment, when the associated emissions unit was in operation.

(Authority for Term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (8) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for particulate emissions, until the compliance date in 40



CFR Part 63, Subpart DDDDD, are the opacity of the visible particulate emissions in the exhaust stack and the total combined power input to all fields of the ESP.

Stack opacity is measured and recorded by the certified continuous opacity monitoring (COM) system. The visible particulate emissions indicator range is each six-minute block average with an opacity value greater than 20%. When the opacity value is greater than 20%, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP) will be required.

The ESP operating parameters are measured and recorded by the continuous secondary voltage and secondary current monitoring equipment and the associated record keeping requirements as specified in d)(6). The ESP indicator range is each 3-hour block of time during which the total combined power input (in kilowatts) to all fields of the ESP is less than 90 percent of the average total combined power input during the most recent performance test. When the total combined power input value is less than 90 percent, corrective action (including, but not limited to, an evaluation of the emissions unit and ESP) will be required.

Upon detecting an excursion of the opacity value and/or the ESP power input, the permittee shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

(Authority for Term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (9) Whenever the monitored values for the opacity and/or total combined power input within the ESP deviates from the indicator values in d)(5) of this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and
  - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the emissions unit and control equipment within the acceptable range(s) or at/above the minimum total combined power input specified in this permit, unless the permittee determines that



corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the total combined power input for all fields of the ESP immediately after the corrective action;
- k. the percent opacity immediately after the corrective action; and
- l. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

(Authority for Term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (10) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring under 40 CFR Part 64 did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. Approved revisions to the monitoring will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

- (11) If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (12) After the compliance date specified in 40 CFR Part 63, Subpart DDDDD, the PE monitoring requirements specified in 40 CFR 63.7525 may satisfy the monitoring requirements of 40 CFR Part 64 specified in d)(3) - d)(11). Since the CAM requirements



of 40 CFR Part 64 will continue to apply after the date specified in 40 CFR Part 63, Subpart DDDDD, the CAM plan shall be revised at such time to be consistent with the MACT monitoring requirements.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (13) The PTI for this emissions unit was evaluated based on information contained in the PTI application associated with this emissions unit. Prior to any physical change or change in the method of operation (i.e. using an alternative fuel) associated with this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation, is (are) defined as a modification, then the permittee shall obtain a final PTI modification prior to performing such a change and shall incorporate such changes into the Title V permit following the procedures for a minor permit modification or significant permit modification, as appropriate.

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

- (14) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install 14-384, issued on 11/13/1981: d)(1)-d)(13). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that summarize the results of the weekly coal sample analyses including sulfur content, heat content, and the calculated sulfur dioxide emission rate (in pounds sulfur dioxide/mmBtu actual heat input) for each sample collected during the calendar quarter.

These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall cover the data obtained during the previous calendar quarters.

(Authority for term: OAC rule 3745-77-07(C)(1) and 3745-18-04(F))

- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity 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 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 continuous opacity monitoring system (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 60.7, and 40 CFR Part 64)

- (3) The permittee shall comply with the following quarterly deviation reporting requirements concerning the operation of the ESP on this emissions unit:



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- a. an identification of each period of time (start time and date, and end time and date) when the ESP operating parameters were outside of the range specified in d)(5) and the cause of each incident;
- b. the date, time, and duration of any downtime of the ESP continuous monitoring equipment (other than downtime associated with zero and span or other daily calibration checks) while the emissions unit was in operation and the cause of each incident;
- c. the corrective action(s) taken for each incident of deviation described in (a) and (b);
- d. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
- e. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the emissions unit into compliance and/or the ESP indicator ranges defined in d)(5) into an acceptable range, was determined to be necessary and was not taken; and
- f. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action(s).

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.

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

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (4) If the permittee is required under 40 CFR Part 64.8 and d)(11) of this permit to develop a QIP, the permittee shall submit quarterly reports that contain a description of the actions taken to implement a QIP during the reporting period. Upon completion of a QIP, the permittee shall include documentation that the implementation of the plan has been completed and reduced the likelihood of excursions.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (5) After the compliance date specified in 40 CFR Part 63, Subpart DDDDD, the reporting requirements specified in 40 CFR 63.7550 may satisfy the reporting requirements of 40 CFR Part 64 specified in e)(2)-e)(4). Since the CAM requirements of 40 CFR Part 64 will continue to apply after the date specified in 40 CFR Part 63, Subpart DDDDD, the CAM plan shall be revised at such time to be consistent with the MACT reporting requirements.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (6) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 14-384, issued on 11/13/1981: e)(1)-e)(5). The reporting requirements contained



in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

Ongoing compliance with the opacity limitation 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.

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

b. Emission Limitations:

SO<sub>2</sub> emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.

SO<sub>2</sub> emissions shall not exceed 1.45 pounds per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with these emission limitations shall be determined by using the fuel analysis records required pursuant to d)(1) and the applicable equation in OAC rule 3745-18-04(F) below.

Sulfur dioxide emissions from solid fuel samples shall be calculated as follows:

$$ER = (1 \times 10^6) / H \times S \times 1.9$$

where:

ER = the emission rate in pounds of sulfur dioxide per mmBtu;

H = the heat content of the solid fuel in Btu per pound; and

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



If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

(Authority for term: OAC rule 3745-18-04(F)(1) and OAC rule 3745-77-07(C)(1))

c. Emission Limitation:

PE shall not exceed 0.18 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with the mass allowable emission limitation in pound per mmBtu shall be demonstrated through the PE emission testing required in f)(2) below.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-17-03(B)(9))

(2) 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 3 months after issuance of this permit and within 6 months prior to the permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate of 0.18 pound per mmBtu.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Methods 1 through 4, and Method 5 of 40 CFR Part 60, Appendix A.

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

- d. During the test, the permittee shall monitor and record the ESP operating parameters, including secondary voltage and secondary current, and calculate the average total combined power input, in kilowatts, for all fields of the ESP.
- e. 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.



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- f. 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).
- g. 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.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the 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 3745-77-07(C)(1), OAC rule 3745-17-03(B)(9), and 40 CFR Part 64)

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install number 14-384, issued on 11/13/1981: f)(1)-f)(2). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) **Miscellaneous Requirements**

- (1) None.



**2. B105, ECUP Boiler #2**

**Operations, Property and/or Equipment Description:**

122 mmBtu/hour natural gas and No. 2 fuel oil-fired boiler [This emissions unit was formerly identified as B005 under facility ID 1431070207 and has been incorporated into the facility ID indicated above as emissions unit B105.]

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-10(B)(1)	PE shall not exceed 0.020 pound per mmBtu of actual heat input.  The particulate emission limitation established pursuant to OAC rule 3745-17-10(B)(1) is less stringent than the emission limitation established pursuant to 40 CFR Part 63, Subpart DDDDD. The permittee shall comply with all applicable emission limitations (including any less stringent emission limitation) after the compliance date in 40 CFR Part 63, Subpart DDDDD.
c.	OAC rule 3745-18-37(H)(2)	SO <sub>2</sub> emissions shall not exceed 0.24 pound per mmBtu of actual heat input.  See b)(2)a.
d.	40 CFR Part 63, Subpart DDDDD (40 CFR Part 63.7480-7575)  National Emission Standards for Hazardous Air Pollutants (NESHAP)	Applicable Emission Limits in Table 2; Work Practice Standards in Table 3; and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	<p>for Industrial, Commercial, and Institutional Boilers and Process Heaters</p> <p>[In accordance with 40 CFR 63.7499 and 63.7575, this emissions unit is an existing boiler designed to burn liquid fuel (No. 2 fuel oil) or natural gas. Therefore, the unit may be subject to the subcategory requirements for units designed to burn liquid fuel, units designed to burn light liquid fuel, and/or units designed to burn gas 1 fuel as defined in this subpart. The permittee shall comply with the emission limitations and operating limitations for the applicable fuel subcategory specified in this section.]</p>	<p>Pursuant to 40 CFR 63.7495(b), the permittee shall comply with this subpart no later than January 31, 2016, except as provided in 63.6(i).</p>
e.	<p>40 CFR Part 63.1-15 (40 CFR 63.7565)</p>	<p>Table 10 to 40 CFR Part 63, Subpart DDDDD – Applicability of General Provisions (Subpart A) to Subpart DDDDD shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply.</p>

(2) Additional Terms and Conditions

- a. The quality of the fuel oil burned in this emissions unit shall meet a sulfur content specification which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.24 pound SO<sub>2</sub>/mmBtu of actual heat input. Compliance shall be determined by analytical results provided by the permittee or oil supplier for each shipment of oil as specified in d)(1).
- b. 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.

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

- c. 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, and Appendix B to 40 CFR Part 60).

c) Operational Restrictions

- (1) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in this permit.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-18-04(E))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the oil burned in this emissions unit in accordance with the following procedures:

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

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

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-18-04(E)(6), and 3745-18-04(I))

- (2) The permittee shall operate and maintain the continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from the common stack serving emissions units B103, B105, and B108. The opacity of the visible particulate emissions from emissions units B103, B105, and B108 shall be monitored in



the combined stack for the three boilers and the visible particulate emission limitation specified in b)(1)b. applies to each individual boiler as monitored at the common stack. An exceedance of the visible emission limitation in b)(1)b. as measured at the common stack does not necessarily constitute an exceedance of the emission limitation for all boilers. 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 continuous opacity monitoring system 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, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- 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, and 40 CFR Part 60, Appendix B)

- (3) 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 continuous opacity monitoring system has been certified to meet the requirements of 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.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

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

- (4) The Title V permit for this emissions unit was evaluated based on information contained in the Title V application associated with this emissions unit. Prior to any physical change or change in the method of operation (i.e. using an alternative fuel) associated



with this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a “modification” as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation, is (are) defined as a modification, then the permittee shall obtain a final PTI modification prior to performing such a change and shall incorporate such changes into the Title V permit following the procedures for a minor permit modification or significant permit modification, as appropriate.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the allowable SO<sub>2</sub> emission limitation, in pounds SO<sub>2</sub>/mmBtu actual heat input.

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

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-15-03(A), and 3745-15-03(C))

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

- a. **Emission Limitation:**

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

**Applicable Compliance Method:**

Ongoing compliance with the opacity limitation 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.

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



b. Emission Limitation:

PE shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

For the use of natural gas, compliance may be determined by multiplying the hourly gas burning capacity of the emissions unit (in million cubic feet/hour) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs of filterable PE/million cubic feet, and then dividing by the maximum hourly heat input capacity of the emissions unit (in mmBtu/hour).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 while firing only natural gas.

For the use of No.2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit (in gallons/hour) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 5/10) emission factor of 2 lbs of filterable PE/1000 gallons and then dividing by the maximum hourly heat input capacity of the emissions unit (in mmBtu/hour).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 while firing No.2 fuel oil.

(Authority for term: OAC rules 3745-17-10(B) and 3745-77-07(C)(1))

c. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.24 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Continuous compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation in accordance with the monitoring and record keeping requirements in d)(1).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-18-04(E), and 3745-18-04(F)(2))

g) Miscellaneous Requirements

(1) None.



**3. B108, ECUP Boiler #3**

**Operations, Property and/or Equipment Description:**

135.6 mmBtu/hour Spreader Stoker Boiler w/ fabric filter, capable of coal and/or clean cellulosic biomass firing (capacity with CCB is 131 mmBtu/hr) [This emissions unit was formerly identified as B008 under facility ID 1431070207 and has been incorporated into the facility ID indicated above as emissions unit B108.]

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) d)(16) and d)(17)

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(D)  Federally Enforceable Limitations to Avoid Major Modification New Source Review and Prevention of Significant Deterioration (CO from coal and wood combustion)	CO emissions shall not exceed 104.7 TPY, based upon a rolling, 12-month summation.  See c)(1) and c)(4).
b.	ORC 3704.03(T)  Best Available Technology (BAT)  (PTI P0108825, issued 12/22/2011)	When firing clean cellulosic biomass (CCB) only:  PM <sub>10</sub> * emissions shall not exceed 0.034 grain per dry standard cubic foot (gr/dscf);  PM <sub>2.5</sub> * emissions shall not exceed 0.032 gr/dscf;  CO emissions shall not exceed 0.20 pound per mmBtu;  * includes condensables
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	When firing clean cellulosic biomass (CCB):



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University of Cincinnati

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(PTI P0108825, issued 12/22/2011)	<p>VOC emissions shall not exceed 0.017 pound per mmBtu of actual heat input.</p> <p>See b)(2)b.</p>
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	<p>When firing clean cellulosic biomass (CCB):</p> <p>See b)(2)c.</p>
e.	<p>OAC rule 3745-31-05(A)(3)</p> <p>Best Available Technology (BAT)</p> <p>(PTI P0108825, issued 12/22/2011, which incorporates the requirements of PTI 14-485, issued 4/18/1984)</p>	<p>PE shall not exceed 0.05 pound per mmBtu of actual heat input, and 27.0 TPY.</p> <p>NOx emissions shall not exceed 0.70 pound of NOx per mmBtu of actual heat input, and 378.1 TPY.</p> <p>SO<sub>2</sub> emissions shall not exceed 1.60 pounds per mmBtu of actual heat input and 864.2 TPY.</p> <p>The SO<sub>2</sub> emission limitations established pursuant to this rule within PTI P0108825 are less stringent than the subsequent SO<sub>2</sub> emission limitation established in OAC rule 3745-18-37(H)(1) for this emissions unit. The permittee shall comply with all applicable emission limitations (including any less stringent emission limitation).</p> <p>The particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3) is less stringent than the emission limitation established pursuant to 40 CFR Part 63, Subpart DDDDD. The permittee shall comply with all applicable emission limitations (including any less stringent emission limitation) after the compliance date in 40 CFR Part 63, Subpart DDDDD.</p> <p>See b)(2)a. and c)(5).</p>
f.	OAC rule 3745-17-07(A)(1)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-17-10(B)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
h.	OAC rule 3745-18-37(H)(1)	SO <sub>2</sub> emissions shall not exceed 1.45 pounds per mmBtu of actual heat input.  See c)(2) and c)(3).
i.	OAC rule 3745-103  Acid Rain Permits and Compliance	Exempt. See b)(2)d.
j.	40 CFR Part 60, Subpart Db  Standards of Performance for New Stationary Sources (NSPS), Industrial, Commercial, and Institutional Steam Generating Units	Exempt. See b)(2)e.
k.	40 CFR Part 60, Subpart Eb  Standards of Performance for New Stationary Sources (NSPS), Large Municipal Waste Combustors	Exempt. See b)(2)f. and c)(1).
l.	40 CFR Part 60, Subpart CCCC  Standards of Performance for New Stationary Sources (NSPS), Commercial and Industrial Solid Waste Incineration Units	Exempt. See b)(2)g.
m.	40 CFR Part 63, Subpart DDDDD (40 CFR Part 63.7480-7575)  National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters  [In accordance with 40 CFR 63.7499 and 63.7575, this emissions unit is an existing spreader stoker designed to burn coal and clean cellulosic biomass (not wet or kiln-dried). Therefore, the unit is subject to the subcategory requirements for units designed to burn solid fuel, units designed to burn coal/solid fossil fuel, and stokers designed to burn	Applicable Emission Limits in Table 2; Work Practice Standards in Table 3; and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63  Pursuant to 40 CFR 63.7495(b), the permittee shall comply with this subpart no later than January 31, 2016, except as provided in 63.6(i).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	coal/solid fossil fuel as defined in this subpart. The permittee shall comply with the emission limitations and operating limitations for the applicable subcategories specified in this section.]	
n.	40 CFR Part 63.1-15 (40 CFR 63.7565)	Table 10 to 40 CFR Part 63, Subpart DDDDD – Applicability of General Provisions (Subpart A) to Subpart DDDDD shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply.
o.	40 CFR Part 64 (40 CFR 64.1-10)  Compliance Assurance Monitoring (CAM)	See b)(2)h.-b)(2)j., d)(7)-d)(15), and e)(4)-e)(6).  Pursuant to 40 CFR 64.2(b), CAM will not apply to the MACT emission limitations or standards in 40 CFR Part 63, Subpart DDDDD, after the compliance date in that rule.

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by 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 the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.
- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC emissions is less than ten tons per year.



- d. This emissions unit is exempt from the acid rain program requirements in OAC Chapter 3745-103 pursuant to the exemption for non-utility units specified in OAC rule 3745-103-02(B)(8).
- e. This emissions unit is exempt from the steam generating unit requirements in 40 CFR Part 60, Subpart Db for affected units that commence construction, modification, or reconstruction after 6/19/1984. The addition of CCB fuels under PTI P0108825 did not result in a modification or reconstruction of this emissions unit pursuant to the definitions of modification and reconstruction specified in 40 CFR Part 60.14 and 60.15. The emissions unit require a a physical and/or operational change as a result of the addition of CCB fuels; however, the change did not result in an increase in the emission rate of any pollutant subject to regulation under Subpart Db (i.e., filterable particulate matter, sulfur dioxide, and nitrogen oxides).
- f. This emissions unit is exempt from the municipal waste combustor requirements in 40 CFR Part 60, Subpart Eb pursuant to the definitions of municipal solid waste and municipal waste combustor specified in 40 CFR Part 60.51b. The clean cellulosic biomass material (clean wood) is a material specifically excluded from the definition of municipal solid waste.

In order to demonstrate that this emissions unit is exempt from being subject to 40 CFR Part 60, Subpart Eb, the permittee shall comply with the monitoring and record keeping requirements as specified in d)(5) and d)(6) to ensure that the CCB material does not contain discarded waste constituents that would classify the fuel as municipal solid waste.

- g. This emissions unit is exempt from the Standards of Performance for Commercial and Industrial Solid Waste Incinerations (CISWI) Units, 40 CFR Part 60, Subpart CCCC, by the exclusive use of traditional fuels as identified in 40 CFR 241.2 which specifically identifies clean cellulosic biomass as an alternative fuel developed from virgin materials that can now be used as fuel products.
- h. 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.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), 40 CFR 60.13, 40 CFR Part 60, Appendix B, and 40 CFR Part 64)



- i. 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), OAC rule 3745-31-05(A)(3), 40 CFR 60.2, Appendix B to 40 CFR Part 60, and 40 CFR Part 64)

- j. At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR Part 64)

c) Operational Restrictions

- (1) The permittee shall burn only coal and/or CCB material in this emissions unit.

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

- (2) The coal received for burning in this emissions unit shall have a sulfur content and heat content that, when calculated in terms of pounds of sulfur dioxide per million Btu of heat content, complies with the allowable sulfur dioxide emission limitation contained in this permit. Compliance shall be determined by the weekly coal sampling and analysis as specified in d)(2).

(Authority for term: OAC rules 3745-77-07(A)(1), 3745-18-04(D), and 3745-31-05(A)(3))

- (3) The CCB material burned in this emissions unit shall have a sulfur content that, when calculated in terms of pounds of sulfur dioxide per million Btu of heat content, complies with the allowable sulfur dioxide emission limitation contained in this permit. Compliance shall be determined by using analytical results for the composite sample of CCB collected during each calendar month as specified in d)(3).

(Authority for term: OAC rules 3745-77-07(A)(1), 3745-18-04(D), and 3745-31-05(A)(3))

- (4) The maximum annual CCB material usage rate for this emissions unit shall not exceed 128,624 tons per rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the CCB material usage levels specified in the following table:

Month	Maximum Allowable Cumulative Usage (tons)
1	11587
1-2	23174
1-3	34761
1-4	46348



1-5	57935
1-6	69522
1-7	81109
1-8	92696
1-9	104283
1-10	115870
1-11	127457
1-12	128624

After the first 12 calendar months of operation, compliance with the annual CCB material usage limitation shall be based upon a rolling, 12-month summation of the usage rates.

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

- (5) The permittee shall operate and maintain an oxygen analyzer to automatically regulate excess air to the boiler.

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

d) Monitoring and/or Recordkeeping Requirements

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

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

- (2) The permittee shall conduct coal sampling and analysis for emissions units B103 and B108 in accordance with Method 19 of 40 CFR Part 60, Appendix A, and the requirements of OAC rule 3745-18-04(D)(8)(d)(v) as follows:

- a. The permittee shall collect one representative sample per week of the coal burned in these emissions units.
- b. The coal sample shall consist of at least one sample increment per boiler and each increment shall weigh a minimum of five pounds each.
- c. The coal sample shall be analyzed for sulfur content (weight percent) and heat content/gross calorific value (Btu/pound) in accordance with the ASTM methods specified in Method 19 of 40 CFR Part 60, Appendix A, Section 12.5.2.1.



The permittee shall maintain records of the coal analyses referenced above and the sulfur dioxide emission rate for each representative coal sample calculated using the formula specified in OAC rule 3745-18-04(F)(1).

(Authority for term: OAC rule 3745-18-04(D)(8)(d)(v) and OAC rule 3745-77-07(C)(1))

- (3) The permittee shall collect, or require the CCB material supplier to collect, a representative sample of the clean cellulosic biomass from each shipment of fuel which is received for burning in this emissions unit. The clean cellulosic biomass sampling shall be performed in accordance with ASTM method D2234, Standard Practice for Collection of a Gross Sample of Coal. At the end of each month, the representative samples of alternative fuel from all shipments of CCB material which were received during that month shall be combined into one composite sample. This combination may be a physical composite or a weighted average of the test data for the individual shipments.

Each monthly composite sample of clean cellulosic biomass shall be analyzed for sulfur content (percent) and heat content (Btu/pound of fuel). The analytical methods to be used to determine the sulfur content and heat content shall be the most recent version of: ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval from the Hamilton County Department of Environmental Services.

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

- (4) The permittee shall maintain monthly records of the following information:
- a. the CCB material usage for each month, and
  - b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the CCB material usage figures.

During the first 12 calendar months of operation, the permittee shall record the cumulative CCB material usage for each calendar month.

(Authority for term: OAC rules 3745-31-05(D) and 3745-77-07(C)(1))

- (5) The permittee shall develop, implement, and maintain an Alternative Fuel Procurement and Monitoring Plan (AFPMP) to ensure that only CCB material, as described in c)(1), is being burned in this emissions unit and to prevent unacceptable waste from being burned. The plan shall, at a minimum, specify the following:
- a. A description of the CCB material fuel to be burned, including the raw materials used to produce the fuel;



- b. A description of prohibited waste constituents that would classify the alternative fuel as municipal solid waste;
- c. Inspection and sorting procedures and protocol used to eliminate prohibited fuels and minimize unacceptable fuels;
- d. Auditing procedures including records of fuel specification, quality control, and batch identification; and
- e. Notification and approval procedures for changes to fuel constituents.

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

- (6) The AFPMP and related records must be kept onsite and available for inspection during regular office hours. The permittee shall submit a copy of the AFPMP to Hamilton County Department of Environmental Services 30 days prior to commencing combustion of CCB material in this emissions unit.

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

- (7) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 7 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C)(1), and 40 CFR Part 64)

- (8) The permittee shall operate and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a continuous basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.



In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C)(1), and 40 CFR Part 64)

- (9) The permittee shall collect and record on a daily basis each period (date and total time) of downtime or bypass of the baghouse, and/or downtime of the baghouse pressure drop monitoring equipment, when the associated emissions unit was in operation.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (10) 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 continuous opacity monitoring system has been certified to meet the requirements of 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.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and



transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), 40 CFR 60.13, 40 CFR Part 60, Appendix B, and 40 CFR Part 64)

- (11) The permittee shall operate and maintain the continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from the common stack serving emissions units B103, B105, and B108. The opacity of the visible particulate emissions from emissions units B103, B105, and B108 shall be monitored in the combined stack for the three boilers and the visible particulate emission limitation specified in b)(1)f. applies to each individual boiler as monitored at the common stack. An exceedance of the visible emission limitation in b)(1)f. as measured at the common stack does not necessarily constitute an exceedance of the emission limitation for all boilers. 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 continuous opacity monitoring system 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, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- 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), OAC rule 3745-31-05(A)(3), 40 CFR 60.13, 40 CFR Part 60, Appendix B, and 40 CFR Part 64)

- (12) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for particulate emissions, until the compliance date in 40 CFR Part 63, Subpart DDDDD, are the opacity of the visible particulate emissions in the exhaust stack and the pressure drop across the baghouse.

Stack opacity is measured and recorded by the certified continuous opacity monitoring (COM) system. The visible particulate emissions indicator range is each six-minute block average with an opacity value greater than 20%. When the opacity value is greater than



20%, corrective action (including, but not limited to, an evaluation of the emissions unit and baghouse) will be required.

The baghouse operating parameters are measured and recorded by the continuous pressure drop monitoring equipment and the associated record keeping requirements as specified in d)(8). The baghouse indicator range is specified in d)(7). When the monitored value for pressure drop is outside of the range specified in d)(7), corrective action (including, but not limited to, an evaluation of the emissions unit and baghouse) will be required.

Upon detecting an excursion of the opacity value and/or the pressure drop across the baghouse, the permittee shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

(Authority for Term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (13) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring under 40 CFR Part 64 did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. Approved revisions to the monitoring will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64)

- (14) If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (15) After the compliance date specified in 40 CFR Part 63, Subpart DDDDD, the PE monitoring requirements specified in 40 CFR 63.7525 may satisfy the monitoring requirements of 40 CFR Part 64 specified in d)(7) - d)(14). Since the CAM requirements of 40 CFR Part 64 will continue to apply after the date specified in 40 CFR Part 63,



Subpart DDDDD, the CAM plan shall be revised at such time to be consistent with the MACT monitoring requirements.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (16) The permit to install for this emissions unit B108 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Benzene

TLV (ug/m3): 1600

Maximum Hourly Emission Rate (lbs/hr): 0.36

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.178

MAGLC (ug/m3): 38

Pollutant: Formaldehyde

TLV: 0.3 ppm

Maximum Hourly Emission Rate (lbs/hr): 0.38

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.186

MAGLC (ug/m3): 5.26

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

- (17) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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

- (18) The PTI for this emissions unit was evaluated based on information contained in the PTI application associated with this emissions unit. Prior to any physical change or change in the method of operation (i.e. using an alternative fuel) associated with this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation, is (are) defined as a modification, then the permittee shall obtain a final PTI modification prior to performing such a change and shall incorporate such changes into the Title V permit following the procedures for a minor permit modification or significant permit modification, as appropriate.

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

- (19) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install P0108825, issued on



12/22/2011: d)(1)-d)(18). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that summarize the results of the weekly coal sample analyses including sulfur content, heat content, and the calculated sulfur dioxide emission rate (in pounds sulfur dioxide/mmBtu actual heat input) for each sample collected during the calendar quarter.

These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall cover the data obtained during the previous calendar quarters.

(Authority for term: OAC rule 3745-77-07(C)(1) and 3745-18-04(F))

- (2) The permittee shall submit quarterly reports on the quality and quantity of CCB material burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

- a. the total quantity of CCB material burned (tons or pounds);
- b. a description of any material other than coal and CCB material burned;
- c. the average sulfur content (percent) of the CCB material burned;
- d. the average heat content (Btu/pound) of the CCB material burned; and
- e. the average sulfur dioxide emission rate (pounds sulfur dioxide/mmBtu actual heat input) from the CCB material burned.

Compliance with the sulfur dioxide emission limit shall be determined each month by calculating the average monthly sulfur dioxide emission rate, using the results of the analyses of the monthly composite sample for sulfur content and heat content.

These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall cover the data obtained during the previous calendar quarters.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(D))

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

- a. all exceedances of the rolling, 12-month emission limitation for CO; and
- b. all exceedances of the rolling, 12 month CCB material usage rate.



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

(Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(D))

- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity 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 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 continuous opacity monitoring system (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), OAC rule 3745-31-05(A)(3), 40 CFR 60.7, and 40 CFR Part 64)

- (5) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. an identification of each period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
  - b. an identification of each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified in d)(7) and the cause of each incident;
  - c. the date, time, and duration of any downtime of the baghouse continuous monitoring equipment (other than downtime associated with zero and span or other daily calibration checks) while the emissions unit was in operation and the cause of each incident;
  - d. the corrective action(s) taken for each incident of deviation described in (a), (b), and (c);
  - e. an identification of each incident of deviation described in (a) and (b) where a prompt investigation was not conducted;
  - f. an identification of each incident of deviation described in (a) and (b) where prompt corrective action, that would bring the emissions unit into compliance and/or the baghouse pressure drop indicator ranges defined in d)(7) into an acceptable range, was determined to be necessary and was not taken; and
  - g. an identification of each incident of deviation described in (a) and (b) where proper records were not maintained for the investigation and/or the corrective action(s).

If no deviations/excursions occurred during a calendar quarter, the report shall so state that no deviations occurred during the reporting period.



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

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), and 40 CFR Part 64)

- (6) If the permittee is required under 40 CFR Part 64.8 and d)(14) of this permit to develop a QIP, the permittee shall submit quarterly reports that contain a description of the actions taken to implement a QIP during the reporting period. Upon completion of a QIP, the permittee shall include documentation that the implementation of the plan has been completed and reduced the likelihood of excursions.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (7) After the compliance date specified in 40 CFR Part 63, Subpart DDDDD, the reporting requirements specified in 40 CFR 63.7550 may satisfy the reporting requirements of 40 CFR Part 64 specified in e)(4)-e)(6). Since the CAM requirements of 40 CFR Part 64 will continue to apply after the date specified in 40 CFR Part 63, Subpart DDDDD, the CAM plan shall be revised at such time to be consistent with the MACT reporting requirements.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (8) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install P0108825, issued on 12/22/2011: e)(1)-e)(7). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) **Testing Requirements**

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

a. **Emission Limitation:**

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

**Applicable Compliance Method:**

Ongoing compliance with the opacity limitation 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.

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

b. Emission Limitation:

CO emissions shall not exceed 104.7 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

The above emission limitation is based upon the potential to emit for coal combustion and clean cellulosic biomass, in pound per mmBtu, and the operational restriction in c)(4). Compliance with the 12-month rolling emission limitations shall be assumed as long as compliance with the CO mass emission rates, in pounds per mmBtu, and the annual operating limitation in c)(4) is not exceeded as demonstrated by the record keeping requirements in d)(4) and the CO stack testing requirements in f)(3).

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

c. Emission Limitations:

When firing only clean cellulosic biomass material:

PM<sub>10</sub> emissions shall not exceed 0.034 gr/dscf; and

PM<sub>2.5</sub> emissions shall not exceed 0.032 gr/dscf.

Applicable Compliance Method:

The emission limitations specified above are based upon compliance with the particulate emissions (PE) rate of 0.039 pound per mmBtu and the calculated PM<sub>10</sub> and PM<sub>2.5</sub> filterable percentage of the total allowable PE rate, including the condensable portion, based on AP-42 emission factors found in Section 1.6 and using an F-factor of 9420 dscf/mmBtu, the average of the F-factors for wood and wood bark in reference method 19, Table 19-2. Compliance with these emission limitations shall be demonstrated through the PE testing required in f)(3), applying the appropriate AP-42 cumulative particulate size distribution and size-specific emissions factors found in Section 1.6 for wood combustion.

(Authority for term: OAC rule 3745-77-07(C)(1) and ORC 3704.03(T))

d. Emission Limitation:

When firing only clean cellulosic biomass material:

CO emissions shall not exceed 0.20 pound per mmBtu.



Applicable Compliance Method:

The emission limitation specified above is based on company submitted data estimating a maximum CO emission rate of 231 ppm CO at 3% oxygen at the entrance of the economizer when firing 100% clean cellulosic biomass material. Compliance with this emission limitations shall be demonstrated through the CO testing required in f)(3) below.

When combusting coal, the CO emission rate, in pound per mmBtu, shall be based upon the appropriate emission factor found in US EPA AP-42 Section 1.1 (dated 9/98) or the permittee's most recent emissions test data. If required, the permittee shall demonstrate compliance with the CO emission limitation when combusting coal through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

(Authority for term: OAC rule 3745-77-07(C)(1) and ORC 3704.03(T))

e. Emission Limitation:

When firing only clean cellulosic biomass material:

VOC emissions shall not exceed 0.017 pound per mmBtu of actual heat input.

VOC emissions shall be less than 10 TPY.

Applicable Compliance Method:

The emission limitations specified above are based upon the appropriate AP-42 emission factor found in Section 1.6.3. If required, the permittee shall demonstrate compliance with the VOC emission limitation by emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

Compliance with the annual emission rate is based upon the summation of the monthly actual heat input in mmBtu per year for the emissions unit multiplied by the AP-42 VOC emission factor.

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

f. Emission Limitations:

PE shall not exceed 0.05 pound per mmBtu of actual heat input; and

PE shall not exceed 27.0 TPY.

Applicable Compliance Methods:

Compliance with the mass allowable emission limitation in pound per mmBtu shall be demonstrated through the particulate emission testing required in f)(2) and f)(3) below. Compliance with the annual emission rate, when combusting coal or clean cellulosic biomass, is based upon the summation of the monthly



actual heat input in mmBtu per year for the emissions unit multiplied by the actual PE emissions rate determined by the most recent stack emissions test.

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

g. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 0.70 pound of NO<sub>x</sub> per mmBtu of actual heat input, and 378.1 TPY.

Applicable Compliance Methods:

When firing clean cellulosic biomass, compliance with the mass allowable emissions limitation in pound per mmBtu shall be demonstrated through the NO<sub>x</sub> emission testing required in f)(3) below. When firing coal, compliance with the mass allowable emissions limitation in pound per mmBtu shall be based upon the appropriate emission factor found in US EPA AP-42 Section 1.1 (dated 9/98) or the permittee's most recent emissions test data. If required, the permittee shall demonstrate compliance with the NO<sub>x</sub> emission limitation when combusting coal through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

Compliance with the annual emission rate, when combusting coal or clean cellulosic biomass, is based upon the summation of the monthly actual heat input in mmBtu per year for the emissions unit multiplied by the actual NO<sub>x</sub> emissions rate determined by the most recent stack emissions test(s) and/or the emission factor for coal combustion found in US EPA AP-42 Section 1.1.

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

h. Emission Limitations:

SO<sub>2</sub> emissions shall not exceed 1.60 pounds per mmBtu of actual heat input and 864.2 TPY.

SO<sub>2</sub> emissions shall not exceed 1.45 pounds per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with these emission limitations shall be determined by using the fuel analysis records required pursuant to d)(2) and d)(3) and the applicable equation in OAC rule 3745-18-04(F) below.

Sulfur dioxide emissions from solid fuel samples shall be calculated as follows:

$$ER = (1 \times 10^6) / H \times S \times 1.9$$

where:

ER = the emission rate in pounds of sulfur dioxide per mmBtu;



H = the heat content of the solid fuel in Btu per pound; and

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

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

Compliance with the annual emission rate is based upon the summation of the monthly actual heat input in mmBtu per year for the emissions unit multiplied by the actual SO<sub>2</sub> emissions rate determined by the fuel analysis records.

(Authority for term: OAC rule 3745-18-04(F)(1) and OAC rule 3745-77-07(C)(1))

(2) 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, when firing coal, within 3 months after issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance, when firing coal, with the allowable mass emission rate for particulate of 0.05 pound per mmBtu.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Methods 1 through 4, and Method 5 of 40 CFR Part 60, Appendix A.

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

- d. During the test, the permittee shall monitor and record the baghouse operating parameters, including the pressure drop across the baghouse, in inches of water.
- e. 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.
- f. 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).

- g. 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.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the 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 3745-77-07(C)(1), OAC rule 3745-17-03(B)(9), and 40 CFR Part 64)

- (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 6 months after commencing operation of this emissions unit firing clean cellulosic biomass material; unless otherwise approved by Hamilton County Department of Environmental Services to coincide with the required periodic testing pursuant to f)(2) above;
  - b. the emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, NO<sub>x</sub>, and CO when firing clean cellulosic biomass material;
  - c. the following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
    - 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 7 for NO<sub>x</sub>; and
    - iv. 40 CFR Part 60, Appendix A, Method 10 for CO.

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



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

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), and ORC 3704.03(T))

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install number P0108825, issued on 12/22/2011: f)(1)-f)(3). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.



**4. B109, ECUP New Boiler No. 5**

**Operations, Property and/or Equipment Description:**

96.5 mmBtu/Hr natural gas and No. 2 oil-fired boiler.

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) 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(D) (PTI P0107225, issued 12/2/2010) Federally Enforceable Limitations to Avoid Prevention of Significant Deterioration and Nonattainment New Source Review	<u>Emissions from Natural Gas Use:</u> NOx emissions shall not exceed 0.036 pound per mmBtu. <u>Emissions from No. 2 Fuel Oil Use:</u> NOx emissions shall not exceed 0.14 pound per mmBtu. <u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u> NOx emissions shall not exceed 22.25 TPY, based upon a rolling, 12-month summation. SO <sub>2</sub> emissions shall not exceed 35 TPY, based upon a rolling, 12-month summation. See b)(1)i., c)(1), c)(3), and c)(4).
b.	ORC 3704.03(T) (PTI P0107225, issued 12/2/2010)	<u>Emissions from Natural Gas Use:</u> CO emissions shall not exceed 0.040 pound per mmBtu.



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><u>Emissions from No. 2 Fuel Oil Use:</u></p> <p>CO emissions shall not exceed 0.040 pound per mmBtu.</p> <p><u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u></p> <p>CO emissions shall not exceed 16.9 TPY, based upon a rolling, 12-month summation.</p>
c.	<p>OAC rule 3745-31-05(A)(3), as effective 11/30/01</p> <p>(PTI P0107225, issued 12/2/2010)</p>	<p><u>Emissions from Natural Gas Use:</u></p> <p>PE and PM<sub>10</sub> emissions shall not exceed 0.008 pound per mmBtu.</p> <p>SO<sub>2</sub> emissions shall not exceed 0.001 pound per mmBtu.</p> <p>VOC emissions shall not exceed 0.01 pound per mmBtu.</p> <p><u>Emissions from No. 2 Fuel Oil Use:</u></p> <p>PE and PM<sub>10</sub> emissions shall not exceed 0.014 pound per mmBtu.</p> <p>SO<sub>2</sub> emissions shall not exceed 0.051 pound per mmBtu.</p> <p>VOC emissions shall not exceed 0.01 pound per mmBtu.</p> <p><u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u></p> <p>PE and PM<sub>10</sub> emissions shall not exceed 3.8 TPY.</p> <p>SO<sub>2</sub> emissions shall not exceed 3.7 TPY.</p> <p>VOC emissions shall not exceed 4.65 TPY.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Visible particulate emissions from any stack shall not exceed 10% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.</p> <p>See b)(2)a. and b)(2)e.</p>
d.	<p>OAC rule 3745-31-05 (A)(3)(a)(ii), as effective 12/01/06</p> <p>(PTI P0107225, issued 12/2/2010)</p>	<p>See b)(2)b.</p>
e.	<p>OAC rule 3745-17-07(A)(1)</p>	<p>The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart Dc.</p> <p>See b)(2)c.</p>
f.	<p>OAC rule 3745-17-10(B)(1)</p>	<p>The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>Once b)(2)a. is implemented, then this emissions unit is subject to the following PE limitation of 0.02 pound per million Btu of actual heat input in accordance with this rule.</p>
g.	<p>OAC rule 3745-18-06(A)</p>	<p>When burning natural gas, this emissions unit is exempt from paragraphs (D), (F) and (G) of OAC rule 3745-18-06 and from OAC rules 3745-18-07 to 3745-18-94 during any calendar day in which natural gas is the only fuel burned.</p>
h.	<p>OAC rule 3745-18-06(D)</p>	<p>When burning No. 2 fuel oil, the emission limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) or OAC rule 3745-31-05(E) or 40 CFR Part 60 Subpart Dc.</p>



i.	<p>40 CFR Part 60 Subpart Dc</p> <p>Standards of Performance (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units</p>	<p>The SO<sub>2</sub> emission limitation of 0.5 pound per million Btu of actual heat input specified by this rule is less stringent than the SO<sub>2</sub> emission limitation established pursuant to OAC rule 3745-31-05(A)(3) or OAC rule 3745-31-05(E).</p> <p>The limit of 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)c.</p> <p>See b)(2)d.</p>
j.	<p>OAC rule 3745-31-05(E), as effective 12/01/06 (Avoiding State Modeling for SO<sub>2</sub>)  (PTI P0107225, issued 12/2/2010)</p>	<p>The SO<sub>2</sub> emission limitation specified by this rule is equivalent to the SO<sub>2</sub> emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p><u>Emissions from Natural Gas Use:</u></p> <p>SO<sub>2</sub> emissions shall not exceed 0.001 pound per mmBtu.</p> <p><u>Emissions from No. 2 Fuel Oil Use:</u></p> <p>SO<sub>2</sub> emissions shall not exceed 0.051 pound per mmBtu.</p> <p><u>Combined Emissions from Natural Gas and No. 2 Fuel Oil Use:</u></p> <p>SO<sub>2</sub> emissions shall not exceed 3.7 TPY.</p> <p>See b)(2)c.</p>
k.	<p>40 CFR Part 63, Subpart DDDDD (40 CFR Part 63.7480-7575)</p> <p>National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters</p> <p>[In accordance with 40 CFR 63.7499 and 63.7575, this emissions unit is an existing boiler designed to burn liquid fuel (No. 2 fuel oil) or natural</p>	<p>Applicable Emission Limits in Table 2; Work Practice Standards in Table 3; and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63.</p> <p>Pursuant to 40 CFR 63.7495(b), the permittee shall comply with this subpart no later than January 31, 2016, except as provided in 63.6(i).</p>



	<p>gas. Therefore, the unit may be subject to the subcategory requirements for units designed to burn liquid fuel, units designed to burn light liquid fuel, and/or units designed to burn gas 1 fuel as defined in this subpart. The permittee shall comply with the emission limitations and operating limitations for the applicable fuel subcategory specified in this section.]</p>	
<p>i.</p>	<p>40 CFR Part 63.1-15 (40 CFR 63.7565)</p>	<p>Table 10 to 40 CFR Part 63, Subpart DDDDD – Applicability of General Provisions (Subpart A) to Subpart DDDDD shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply.</p>

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by 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 the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.  
  
The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE/PM<sub>10</sub>, SO<sub>2</sub>, and VOC emissions from this air contaminant source since the uncontrolled potential to emit for PE/PM<sub>10</sub>, SO<sub>2</sub>, and VOC emissions is less than ten tons per year.
- c. If U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP, the 40 CFR Part 60, Subpart Dc visible particulate emission limitation in b)(1)i. and the OAC rule 3745-31-05(E) SO<sub>2</sub> emission limitation in b)(1)j. shall apply.



- d. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).
- e. The particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3) for No. 2 fuel oil combustion is less stringent than the emission limitation established pursuant to 40 CFR Part 63, Subpart DDDDD, Table 2. The permittee shall comply with all applicable emission limitations (including any less stringent emission limitation) after the compliance date in 40 CFR Part 63, Subpart DDDDD.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

(Authority for term: OAC rules 3745-77-07(A)(1), 3745-31-05(A)(3), 3745-31-05(D), and ORC 3704.03(T))

- (2) The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.051 lb/mmBtu of actual heat input. Compliance shall be determined by analytical results provided by the permittee or oil supplier for each shipment of oil as specified in d)(1).

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

- (3) The maximum annual No. 2 fuel oil usage rate for this emissions unit shall not exceed 940,000 gallons per rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the No. 2 fuel oil usage levels specified in the following table:

Month	Maximum Allowable Cumulative Usage (gallons)
1	188,000
1-2	376,000
1-3	564,000
1-4	752,000
1-5	940,000
1-6	940,000



1-7	940,000
1-8	940,000
1-9	940,000
1-10	940,000
1-11	940,000
1-12	940,000

After the first 12 calendar months of operation, compliance with the annual No. 2 fuel oil usage limitation shall be based upon a rolling, 12-month summation of the usage rates.

(Authority for term: OAC rules 3745-77-07(A)(1), 3745-31-05(A)(3), 3745-31-05(D), 3745-31-05(E), and ORC 3704.03(T))

- (4) This emissions unit is required to employ flue gas recirculation.

(Authority for term: OAC rules 3745-77-07(A)(1), 3745-31-05(A)(3), 3745-31-05(D), 3745-31-05(E), and ORC 3704.03(T))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the oil burned in this emissions unit in accordance with the following procedures:

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

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294,



Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

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

- (2) The permittee shall record and maintain records of the amount of each fuel combusted in this emissions unit during each operating day.

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

- (3) The permittee shall maintain monthly records of the following information:
- a. the total volume of natural gas (mmft<sup>3</sup>) burned in this emissions unit;
  - b. the total number of gallons of No. 2 fuel oil burned in this emissions unit;
  - c. during the first 12 calendar months of operation, the permittee shall record the cumulative usage rate of No. 2 fuel oil for each calendar month;
  - d. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the gallons of No. 2 fuel oil used; and
  - e. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the CO, SO<sub>2</sub>, and NO<sub>x</sub> emissions, in tons, from this emissions unit.

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-31-05(D), and ORC 3704.03(T))

- (4) The PTI for this emissions unit was evaluated based on information contained in the PTI application associated with this emissions unit. Prior to any physical change or change in the method of operation (i.e. using an alternative fuel) associated with this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation, is (are) defined as a modification, then the permittee shall obtain a final PTI modification prior to performing such a change and shall incorporate such changes into the Title V permit following the procedures for a minor permit modification or significant permit modification, as appropriate.

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

- (5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #P0107225, issued on 12/2/2010:d)(1)-d)(4). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.



e) Reporting Requirements

- (1) Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):
  - a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and,
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Hamilton County Department of Environmental Services

250 Wm. H. Taft Rd.

Cincinnati, Ohio 45219

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

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or No. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-31-05(D), and ORC 3704.03(T))

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. any exceedance of the allowable sulfur dioxide emission limitation, in pounds sulfur dioxide/mmBtu actual heat input.
  - b. the rolling, 12-month No. 2 fuel oil usage limitation.
  - c. the rolling, 12-month NO<sub>x</sub> and SO<sub>2</sub> emission limitation.

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

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-31-05(D), and ORC 3704.03(T))



- (4) The permittee shall submit annual reports that specify the total CO and SO<sub>2</sub> emissions from this emissions unit during the previous calendar year. The reports shall be submitted by January 31 of each year. The permittee may satisfy this reporting requirement by including and identifying the CO and SO<sub>2</sub> emission data for this emissions unit in the annual Title V Fee Emission Report (FER) due by April 15 of each year.

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-31-05(D), and ORC 3704.03(T))

- (5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0107225, issued on 12/2/2010: e)(1)-e)(4). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) **Testing Requirements**

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

a. **Emission Limitations:**

10% opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

20% opacity as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity.

**Applicable Compliance Method:**

When combusting only natural gas, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9. No visible emissions observations are specifically required to demonstrate compliance with this emission limitation when combusting natural gas but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

When combusting fuel oil, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and 60.45c(a) and 60.47c(a)(1)-(3) of 40 CFR Part 60, Subpart Dc.

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

b. **Emission Limitation:**

0.036 lb/mmBtu of NO<sub>x</sub> emissions while burning natural gas.



Applicable Compliance Method:

The short-term emission limitation for NO<sub>x</sub> was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be determined by converting the 36.0 lb/10<sup>6</sup>scf emission factor into lbs of NO<sub>x</sub>/mmBtu by dividing by 1000 Btu/scf.

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

c. Emission Limitation:

0.14 lb/mmBtu of NO<sub>x</sub> emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (5/10). Compliance with the lb/mmBtu emission limitation may be determined by converting the 20 lbs of NO<sub>x</sub>/10<sup>3</sup> gallons of No. 2 fuel oil emission factor into lb of NO<sub>x</sub>/mmBtu value by dividing by 140 mmBtu/10<sup>3</sup> gal.

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

d. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 22.25 tons per year, based upon 12 month.

SO<sub>2</sub> emissions shall not exceed 35 tons per year, based upon 12 month.

Applicable Compliance Method:

For the NO<sub>x</sub> limitation, the emission limitation was based on compliance with the lb/mmBtu limitations in f)(1)b. and f)(1)c., the fuel usage records in d)(3), and the maximum rated heat input of this emissions unit.

For the SO<sub>2</sub> limitation, the emission limitation was based on compliance with the lb/mmBtu, SO<sub>2</sub> limitation in b)(1)i., the fuel usage records in d)(3), and the maximum rated heat input of this emissions unit.

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

e. Emission Limitation:

0.040 lb/mmBtu of CO emissions while burning natural gas.

Applicable Compliance Method:

The short-term emission limitation for CO was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be



determined by converting the 40 lbs/10<sup>6</sup>scf emission factor into lbs of CO/mmBtu by dividing by 1000 Btu/scf.

(Authority for term: OAC rule 3745-77-07(C)(1) and ORC 3704.03(T))

f. Emission Limitation:

0.040 lb/mmBtu of CO emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be determined by converting the 5.6 lbs of CO/10<sup>3</sup> gallon of No. 2 fuel oil emission factor into lbs of CO/mmBtu by dividing by 140 mmBtu/10<sup>3</sup> gallons of No. 2 fuel oil.

(Authority for term: OAC rule 3745-77-07(C)(1) and ORC 3704.03(T))

g. Emission Limitation:

CO emissions shall not exceed 16.9 tons per year based upon a rolling, 12-month summation.

Applicable Compliance Method:

The emissions limit was based on compliance with the lb/mmBtu limitations in f)(1)e. and f)(1)f., the fuel usage records in d)(3), and the maximum rated heat input of this emissions unit.

(Authority for term: OAC rule 3745-77-07(C)(1) and ORC 3704.03(T))

h. Emission Limitation:

0.008 lb/mmBtu of PE/PM10 emissions while burning natural gas.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 7.6 lbs of Total PE/10<sup>6</sup>scf emission factor into lb of PE/PM10/mmBtu by dividing by 1,000 Btu/scf.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

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



i. Emission Limitation:

0.014 lb/mmBtu of PE/PM10 emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (5/10). Compliance with the lb/mmBtu emission limitation may be determined by converting the 2 lbs of PE/10<sup>3</sup> gallon of No. 2 fuel oil emission factor into lbs of PE/mmBtu by dividing by 140 mmBtu/10<sup>3</sup> gallons of No. 2 fuel oil.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

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

j. Emission Limitation:

PE/PM10 emissions shall not exceed 3.8 tons per year.

Applicable Compliance Method:

The emission limit was based on compliance with the lb/mmBtu limitations in f)(1)h. and f)(1)i., the fuel usage records in d)(3), and the maximum rated heat input of this emissions unit.

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

k. Emission Limitation:

0.001 lb/mmBtu SO<sub>2</sub> emissions while burning natural gas.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition Section 1.4-6, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 0.6 lb/10<sup>6</sup>scf emission factor into lbs of SO<sub>2</sub>/mmBtu by dividing by 1000 Btu/scf.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior written approval from Ohio EPA.

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



I. Emission Limitation:

0.051 lb/mmBtu of SO<sub>2</sub> emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (5/10). Continuous compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation in accordance with the monitoring and record keeping requirements in d)(1).

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 6.

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

m. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 3.7 tons per year.

SO<sub>2</sub> emissions shall not exceed 35 tons per year.

Applicable Compliance Method:

For the 3.7 tons per year of SO<sub>2</sub> limitation, the emission limit was based on compliance with the lb/mmBtu limitations in f)(1)k. and f)(1)l., the fuel usage records in d)(3), and the maximum rated heat input of this emissions unit.

For the 35 tons per year of SO<sub>2</sub> limitation, the emission limitation was based on compliance with the lb/mmBtu, SO<sub>2</sub> limitation in b)(1)i., the fuel usage records in d)(3), and the maximum rated heat input of this emissions unit.

(Authority for term: OAC rules 3745-77-07(C)(1), 3745-31-05(D), 3745-31-05(A)(3), and 3745-31-05(E))

n. Emission Limitation(s):

0.01 lb/mmBtu of VOC emissions while burning natural gas.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 11 lbs VOC/10<sup>6</sup>scf emission factor into lb VOC by dividing by 1,000 Btu/scf.



If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 25.

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

o. Emission Limitation(s):

0.01 lb/mmBtu of VOC emissions while burning No. 2 fuel oil.

Applicable Compliance Method:

The emission limitation was based upon the emission factor from the vendor-provided performance data for a boiler with flue gas recirculation. Compliance with the lb/mmBtu emission limitation may be determined by converting the 1.4 lbs VOC/10<sup>3</sup> gal emission factor into lbs VOC/mmBtu by dividing by 140 mmBtu/10<sup>3</sup> gal.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 25.

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

p. Emission Limitation:

VOC emissions shall not exceed 4.65 tons per year.

Applicable Compliance Method:

The emission limit was based on compliance with the lb/mmBtu limitations in f)(1)n. and f)(1)o., the fuel usage records in d)(3), and the maximum rated heat input of this emissions unit.

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

(2) 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 of resuming operation of this emissions unit following the issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO<sub>x</sub> and CO, while burning natural gas and No. 2 fuel oil in the appropriate averaging period(s),
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
  - i. 40 CFR Part 60, Appendix A, Methods 1 through 4;



- ii. 40 CFR Part 60, Appendix A, Method 7 for NO<sub>x</sub>; and
- iii. 40 CFR Part 60, Appendix A, Method 10 for CO.

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.
- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #P0107225, issued on 12/2/2010: f)(1)-f)(2). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) **Miscellaneous Requirements**

- (1) 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



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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.



**5. P005, CUP Diesel Generator Engine**

**Operations, Property and/or Equipment Description:**

2 MW diesel-fired stationary engine

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)  (PTI 14-05108, issued 8/25/2005)	PE shall not exceed 0.012 pound per mmBtu actual heat input and 0.06 TPY*.  SO <sub>2</sub> emissions shall not exceed 0.043 pound per mmBtu actual heat input and 0.21 TPY*.  NO <sub>x</sub> emissions shall not exceed 40.92 pounds per hour.  OC emissions shall not exceed 1.04 pounds per hour and 0.26 TPY*.  CO emissions shall not exceed 1.73 pounds per hour and 0.43 TPY*.  PM <sub>10</sub> emissions shall not exceed 0.23 pound per hour.  *Based on a rolling, 12-month summation.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rules 3745-31-10 through 3745-31-20.



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	<p>OAC rules 3745-31-10 through 3745-31-20 Prevention of Significant Deterioration</p>	<p>NO<sub>x</sub> emissions shall not exceed 7.1 grams/hp-hr and 10.23 TPY*.  PM<sub>10</sub> emissions shall not exceed 0.04 gram/hp-hr and 0.06 TPY*.  See c)(1), c)(2), and c)(3).  *Based on a rolling, 12-month summation.</p>
c.	<p>OAC rule 3745-17-07(A)(1)</p>	<p>Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.</p>
d.	<p>OAC rule 3745-17-11(B)(5)(b)</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
e.	<p>OAC rule 3745-18-06(G)</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
f.	<p>40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580-6675)  National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)  [In accordance with 40 CFR 63.6590(a)(1)(i) and 63.6675, this emissions unit is an existing non-emergency compression ignition stationary RICE &gt;500 hp subject to the emission and operating limitations specified in this section.]</p>	<p>Comply with either emission limitation below pursuant to Table 2c, of Subpart ZZZZ:  The concentration of CO in the stationary RICE exhaust shall be limited to 23 ppmvd or less at 15 percent O<sub>2</sub>; or  Reduce CO emissions by 70 percent or more. (40 CFR 63.6600(d))  Comply with the operating limitations pursuant to Table 2b of Subpart ZZZZ as specified in b)(2)c. (40 CFR 63.6600(d))  See b)(2)c., b)(2)d., c)(4), d)(3), e)(3), and f)(1)d.  Pursuant to 40 CFR 63.6595(a)(1), as a non-emergency compression ignition (CI) stationary RICE &gt;500 hp, the permittee shall comply with this subpart no later than May 3, 2013.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	40 CFR Part 63.1-15 (40 CFR 63.6665)	Table 8 to 40 CFR Part 63, Subpart ZZZZ – Applicability of General Provisions (Subpart A) to Subpart ZZZZ shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply.

(2) Additional Terms and Conditions

- a. The short-term emission limitations (i.e. pound per hour, pound per mmBtu, and gram/hp-hr) for PE, NO<sub>x</sub>, OC, CO, and PM<sub>10</sub> are based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The pound per mmBtu emission limitation for SO<sub>2</sub> is based on the emissions unit's potential to emit assuming compliance with the diesel fuel sulfur content limitation specified in c)(2). Therefore, no additional monitoring, record keeping, and reporting requirements are necessary beyond those identified in d)(1) to ensure ongoing compliance with this emission limitation.
- c. Pursuant to Table 2b of Subpart ZZZZ, if the permittee elects to comply with the requirement to limit the concentration of CO in the exhaust stream of this emissions unit using an oxidation catalyst, the emissions units shall comply with the following operating limitations:
  - i. maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and
  - ii. maintain the temperature of the exhaust stream so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
- d. The permittee shall install a closed crankcase ventilation system or an open crankcase filtration system on this emissions unit pursuant to the requirements of 40 CFR Part 63.6625(g). Such systems shall be operated and maintained in accordance with the manufacturer's specified maintenance requirements unless the permittee requests approval of different maintenance requirements that are as protective as manufacturer requirements.



c) Operational Restrictions

- (1) The maximum annual operating hours for this emissions unit shall not exceed 500 hours, based upon a rolling, 12-month summation of the operating hours.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), and OAC rules 3745-31-10 through 3745-31-20)

- (2) The sulfur content of the diesel fuel used in this emissions unit shall not exceed 0.05 percent by weight.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), and OAC rules 3745-31-10 through 3745-31-20)

- (3) The permittee shall employ good combustion practices in this emissions unit to minimize NOx and PM<sub>10</sub> emissions.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rules 3745-31-10 through 3745-31-20)

- (4) The permittee shall comply with the applicable operating restrictions required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6604	diesel fuel shall comply with 40 CFR 80.510(b) for non-road diesel fuel
63.6605(a) and (b)	general duty to minimize emissions
63.6625(h)	minimize idle and startup time, not to exceed 30 minutes

(Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR 63.6580-6675)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the diesel fuel burned in each emissions unit in accordance with the following procedures:

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

- b. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240



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

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-18-04(E)(3), and OAC rule 3745-18-04(I))

- (2) The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and OAC rules 3745-31-10 through 3745-31-20)

- (3) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6625(b)	install, operate, and maintain a continuous parameter monitoring system (CPMS) in accordance with (b)(1) through (b)(5) and Table 5 of Subpart ZZZZ
63.6635	monitor continuously except for malfunctions, associated repairs, and required quality assurance activities
63.6640	monitoring methods and data collection for demonstrating continuous compliance in accordance with Table 6 of Subpart ZZZZ
63.6655(a)	required overall records to be maintained
63.6655(b)	records for each CPMS used to demonstrate compliance
63.6655(d)	records required in accordance with Table 6 of Subpart ZZZZ to show continuous compliance
63.6660	record format and retention requirements

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 63.6580-6675)

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-05108, issued on 8/25/2005: d)(1)-d)(3). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these



requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

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

a. an identification of all exceedances of the rolling, 12-month limitation for annual operating hours.

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

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(A)(3))

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable diesel fuel sulfur content limitation specified in c)(2) of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

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

(3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6630(c) and 63.6645	requirements for notification reports
63.6650(a) and (b)	submission of semi-annual compliance reports, including deviation reporting, in accordance with Table 7 of Subpart ZZZZ
63.6650(c), (d), and (e)	content of compliance reports
63.6650(f)	Title V monitoring report allowance
63.6640(b)	submission of deviation reports in accordance with 63.6650

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 63.6580-6675)

(4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-05108, issued on 8/25/2005: e)(1)-e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.



f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

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

No visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

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

b. Emission Limitations:

PE shall not exceed 0.012 pound per mmBtu actual heat input;

SO<sub>2</sub> emissions shall not exceed 0.043 pound per mmBtu actual heat input;

NO<sub>x</sub> emissions shall not exceed 40.92 pounds per hour and 7.1 grams/hp-hr;

OC emissions shall not exceed 1.04 pounds per hour;

CO emissions shall not exceed 1.73 pounds per hour; and

PM<sub>10</sub> emissions shall not exceed 0.23 pound per hour and 0.04 gram/hp-hr.

Applicable Compliance Methods:

The PE, NO<sub>x</sub>, OC, CO, and PM<sub>10</sub> emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-05108, submitted February 26, 2001. If required, compliance with these emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and the pollutant-specific Methods 5, 7, 25, 10, and 201, respectively.

The SO<sub>2</sub> emission limitation above is based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-05108, submitted February 26, 2001. Compliance with the maximum sulfur content limitation for diesel fuel in c)(2) and the associated monitoring



requirements in d)(1) will demonstrate compliance with the SO<sub>2</sub> emission limitation. If required, compliance with the emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and Method 6.

Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and OAC rules 3745-31-10 through 3745-31-20)

c. Emission Limitations:

PE shall not exceed 0.06 TPY\*;

SO<sub>2</sub> emissions shall not exceed 0.21 TPY\*;

NO<sub>x</sub> emissions shall not exceed 10.23 TPY\*;

OC emissions shall not exceed 0.26 TPY\*;

CO emissions shall not exceed 0.43 TPY\*; and

PM<sub>10</sub> emissions shall not exceed 0.06 TPY\*.

\*Based on 12-month rolling summations.

Applicable Compliance Method:

The above emission limitations are based upon the operational restriction in c)(1) and the potential to emit, in lb/hr or lb/mmBtu, for each pollutant. Compliance with the 12-month rolling emission limitations shall be assumed as long as compliance with the annual operating hours limitation in c)(1) is not exceeded as demonstrated by the record keeping requirements in d)(2).

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and OAC rules 3745-31-10 through 3745-31-20)

d. Emission Limitations:

The concentration of CO in the stationary RICE exhaust shall be limited to 23 ppmvd or less at 15 percent O<sub>2</sub>; or

Reduce CO emissions by 70 percent or more.

Applicable Compliance Methods:

The permittee shall demonstrate continuous compliance with either of the above emission limitations in accordance with the monitoring and record keeping requirements pursuant to Subpart ZZZZ and d)(3) of this permit.



The permittee shall comply with the applicable performance testing requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6610	conduct initial performance test within 180 days of compliance date using test methods in Table 4 to Subpart ZZZZ
63.6615	conduct subsequent performance tests in accordance with Table 3 of Subpart ZZZZ
63.6620	performance testing requirements and procedures to determine compliance
63.6630(a) and (b)	initial performance test requirements
63.6640(b)	performance testing requirements after catalyst replacement
63.6645(g)	Notification of intent to conduct performance test

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 63.6580-6675)

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-05108, issued on 8/25/2005: (f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

(1) None.



6. P007, MSB/CARE generator

Operations, Property and/or Equipment Description:

2 MW diesel-fired internal combustion engine

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)  (PTI 14-05757, issued 11/17/2005)	NOx emissions shall not exceed 68.2 pounds per hour.  CO emissions shall not exceed 1.59 pounds per hour.  OC emissions shall not exceed 0.29 pound per hour.  PE, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions shall not exceed 0.64 pound per hour.  SO <sub>2</sub> emissions shall not exceed 1.01 pounds per hour.  See c)(1).  Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and 40 CFR Part 63, Subpart ZZZZ.
b.	OAC rule 3745-31-05(D)	NOx emissions shall not exceed 24.7 TPY*.



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Federally Enforceable Limitations to avoid Nonattainment New Source Review	CO emissions shall not exceed 0.58 TPY*.  OC emissions shall not exceed 0.11 TPY*.  PE, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions shall not exceed 0.23 TPY*.  SO <sub>2</sub> emissions shall not exceed 0.37 TPY*.  *Based on rolling, 12-month summations.  See c)(2).
c.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11(B)(5)(b)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-18-06(G)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580-6675)  National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)  [In accordance with 40 CFR 63.6590 and 63.6675, this emissions unit is a new non-emergency compression ignition stationary RICE >500 hp subject to the emission limitations and operating limitations specified in this section.]	Comply with the emission limitations and operating limitations specified in b)(2)a. pursuant to Table 2a and Table 2b of Subpart ZZZZ (40 CFR 63.6600(b))  See b)(2)c., c)(3), d)(3), e)(3), e)(4), and f)(1)d.
g.	40 CFR Part 63.1-15 (40 CFR 63.6665)	Table 8 to 40 CFR Part 63, Subpart ZZZZ – Applicability of General Provisions (Subpart A) to Subpart ZZZZ shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply



(2) Additional Terms and Conditions

- a. The hourly emission limitations for NO<sub>x</sub>, CO, OC, PE, PM<sub>10</sub>, and PM<sub>2.5</sub> are based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The hourly emission limitation for SO<sub>2</sub> is based on the emissions unit's potential to emit assuming compliance with the diesel fuel sulfur content limitation specified in c)(1). Therefore, no additional monitoring, record keeping, and reporting requirements are necessary beyond those identified in d)(1) to ensure ongoing compliance with this emission limitation.
- c. The emissions unit shall be equipped with a catalytic oxidation system maintained and operated as follows, except during periods of startup, shutdown, and malfunction:
  - i. all emissions are vented to the catalytic oxidation system,
  - ii. the mass emissions of CO from the emissions unit are reduced by 70 percent or more,
  - iii. the catalyst inlet temperature is greater than or equal to 450 degrees F and less than or equal to 1350 degrees F,
  - iv. the 4-hour rolling average catalyst inlet temperature is maintained within the operating limitations for the catalyst inlet temperature established during the most recent performance test that demonstrated the emissions unit was in compliance; and
  - v. the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load, plus or minus 10 percent, from the pressure drop across the catalyst that was measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675 including Table 2a and Table 2b of Subpart ZZZZ)

c) Operational Restrictions

- (1) The sulfur content of the diesel fuel used in this emissions unit shall not exceed 0.05 percent by weight.

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

- (2) The maximum annual operating hours for this emissions unit shall not exceed 725 hours, based upon a rolling, 12-month summation of the operating hours.

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



- (3) The permittee shall comply with the applicable operating restrictions required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6604	diesel fuel shall comply with 40 CFR 80.510(b) for non-road diesel fuel
63.6605(a) and (b)	general duty to minimize emissions
63.6625(h)	minimize idle and startup time, not to exceed 30 minutes

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the diesel fuel burned in each emissions unit in accordance with the following procedures:

- a. For each shipment of diesel fuel received for burning in the emissions unit, the permittee shall collect or require the diesel fuel supplier to collect a representative grab sample of diesel fuel and maintain records of the total quantity of diesel fuel received, the permittee's or diesel fuel supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the diesel fuel for those loads may be represented by a single batch analysis from the supplier.
- b. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

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

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

- a. the operating hours for each month;
- b. the rolling, 12-month summation of the operating hours;
- c. the total emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>/PM<sub>2.5</sub>, and SO<sub>2</sub> for each month; and



- d. the updated rolling, 12-month summation of emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>/PM<sub>2.5</sub>, and SO<sub>2</sub> (the total amount of emissions for the current month plus the total amount of emissions for the previous eleven calendar months).

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

- (3) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6625(b)	install, operate, and maintain a continuous parameter monitoring system (CPMS) for the catalyst inlet temperature in accordance with (b)(1) through (b)(5) and Table 5 of Subpart ZZZZ
63.6635	monitor continuously except for malfunctions, associated repairs, and required quality assurance activities
63.6640	monitoring methods and data collection for demonstrating continuous compliance in accordance with Table 6 of Subpart ZZZZ (catalyst inlet temperature, pressure drop, and performance tests)
63.6655(a)	required overall records to be maintained
63.6655(b)	records for each CPMS used to demonstrate compliance
63.6655(d)	records required in accordance with Table 6 of Subpart ZZZZ to show continuous compliance
63.6660	record format and retention requirements

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-05757, issued on 11/17/2005: d)(1)-d)(3). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

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



- a. an identification of all exceedances of the rolling, 12-month limitation for annual operating hours;
- b. an identification of all exceedances of the rolling, 12-month emission limitations for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>/PM<sub>2.5</sub>, and SO<sub>2</sub>;
- c. an identification of all exceedances of the measured catalyst pressure drop limitation specified in b)(2)c.; and
- d. an identification of all exceedances of the 4-hour rolling average catalyst inlet temperature as specified in b)(2)c.

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

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

- (2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable diesel fuel sulfur content limitation specified in c)(1) of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

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

- (3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6630(c) and 63.6645	requirements for notification reports
63.6640(b) and (e)	submission of deviation reports
63.6650	submission of compliance reports in accordance with Table 7 of Subpart ZZZZ
63.6650(c) and (e)	content of compliance reports
63.6650(f)	Title V monitoring report allowance

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)

- (4) The permittee shall submit deviation reports within 30 days following the end of each calendar quarter documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances where the catalytic oxidation system did not comply with 40 CFR Part 63 or any limitation(s) specified in the terms and conditions of this permit, in units of the standard.

The permittee shall submit reports within 30 days following the end of each calendar quarter documenting any continuous monitoring system downtime and out-of-control time



periods while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the continuous monitoring system while the emissions unit was on line shall be included in the quarterly report. The identification of each parameter monitored, a brief description of the emissions unit, a brief description of the continuous monitoring system, the date of the latest performance test, and a description of any changes in the continuous monitoring system, processes, or controls since the last reporting period shall also be included in the quarterly report.

If there are no deviations and no periods where the continuous monitoring system is out-of-control during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. Startup, shutdown, and malfunction information as specified in 40 CFR Part 63.10(d)(5)(i) shall be included in the report. The total operating time of the emissions unit and the total operating time of the continuous monitoring system while the emissions unit was on line shall also be included in the quarterly report. These quarterly compliance reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63.6580-6675)

- (5) The permittee shall submit annual reports that specify the total NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>/PM<sub>2.5</sub>, and SO<sub>2</sub> emissions from this emissions unit for the calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

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

- (6) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-05757, issued on 11/17/2005: e)(1)-e)(5). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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



a. Emission Limitation:

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

Applicable Compliance Method:

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

No visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

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

b. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 68.2 pounds per hour.

CO emissions shall not exceed 1.59 pounds per hour.

OC emissions shall not exceed 0.29 pound per hour.

PE, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions shall not exceed 0.64 pound per hour.

SO<sub>2</sub> emissions shall not exceed 1.01 pounds per hour.

Applicable Compliance Method:

The NO<sub>x</sub>, CO, OC, and PE/PM<sub>10</sub>/PM<sub>2.5</sub> emission limitations above are based upon the emissions unit's potential to emit and the manufacturer's guaranteed emissions data provided with the application for PTI 14-05757, submitted August 9, 2005. Compliance with the CO emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in d)(3) and the performance testing requirements in f)(1)d. below. If required, compliance with the NO<sub>x</sub>, OC, PE, and PM<sub>10</sub>/PM<sub>2.5</sub> emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and the pollutant-specific Methods 7, 25, 5, and 201, respectively.

The SO<sub>2</sub> emission limitation above is based upon the emissions unit's potential to emit and the emission factor found in US EPA's AP-42, Section 3.4, Table 3.4-1, dated 10/1996. Compliance with the maximum sulfur content limitation for diesel fuel in c)(1) and the associated monitoring requirements in d)(1) will demonstrate compliance with the SO<sub>2</sub> emission limitation. If required, compliance with the emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and Method 6.



Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

c. Emission Limitations:

NOx emissions shall not exceed 24.7 TPY\*.

CO emissions shall not exceed 0.58 TPY\*.

OC emissions shall not exceed 0.11 TPY\*.

PE, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions shall not exceed 0.23 TPY\*.

SO<sub>2</sub> emissions shall not exceed 0.37 TPY\*.

\*Based on rolling, 12-month summations.

Applicable Compliance Method:

The above emission limitations are based upon the operational restriction in c)(2) and the potential to emit, in lb/hr, for each pollutant. Compliance with the 12-month rolling emission limitations shall be assumed as long as compliance with the annual operating hours limitation in c)(2) is not exceeded as demonstrated by the record keeping requirements in d)(2).

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

d. Emission Limitation:

The mass emissions of CO from the emissions unit shall be reduced by 70 percent or more.

Applicable Compliance Methods:

The permittee shall demonstrate continuous compliance with the above emission limitations in accordance with the monitoring and record keeping requirements pursuant to Subpart ZZZZ and d)(3) of this permit.

The permittee shall comply with the applicable performance testing requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6610	conduct initial performance test within 180 days of compliance date using test methods in Table 4 to Subpart ZZZZ
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63.6615	conduct subsequent semiannual performance tests in accordance with Table 3 of Subpart ZZZZ except as specified by rule
63.6620	performance test methods and procedures to determine compliance in accordance with Table 4 of Subpart ZZZZ
63.6630(a) and (b)	initial performance test requirements
63.6640(b)	performance testing requirements after catalyst replacement
63.6645(g)	Notification of intent to conduct performance test

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-05757, issued on 11/17/2005: (f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

(1) None.



**7. P008, ECUP generator**

**Operations, Property and/or Equipment Description:**

1.5 MW diesel-fired internal combustion engine

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)  (PTI P0105931, issued 4/30/2010)	NOx emissions shall not exceed 41.6 pounds per hour.  CO emissions shall not exceed 1.91 pounds per hour.  OC emissions shall not exceed 0.75 pound per hour.  PE and PM <sub>10</sub> emissions shall not exceed 1.71 pounds per hour.  SO <sub>2</sub> emissions shall not exceed 0.75 pound per hour.  See c)(1) and c)(3).  Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and 40 CFR Part 63, Subpart ZZZZ.
b.	OAC rule 3745-31-05(D)	NOx emissions shall not exceed 15.1 TPY*.



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Federally Enforceable Limitations to avoid Nonattainment New Source Review	CO emissions shall not exceed 0.69 TPY*.  OC emissions shall not exceed 0.27 TPY*.  PE and PM <sub>10</sub> , emissions shall not exceed 0.62 TPY*.  SO <sub>2</sub> emissions shall not exceed 0.27 TPY*.  *Based on rolling, 12-month summations.  See c)(2).
c.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11(B)(5)(b)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-18-06(G)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580-6675)  National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)  [In accordance with 40 CFR 63.6590 and 63.6675, this emissions unit is a new non-emergency compression ignition stationary RICE >500 hp subject to the emission limitations and operating limitations specified in this section.]	Comply with the emission limitations and operating limitations specified in b)(2)c. pursuant to Table 2a and Table 2b of Subpart ZZZZ (40 CFR 63.6600(b))  See b)(2)c., c)(4), d)(3), e)(3), e)(4), and f)(1)d.
g.	40 CFR Part 63.1-15 (40 CFR 63.6665)	Table 8 to 40 CFR Part 63, Subpart ZZZZ – Applicability of General Provisions (Subpart A) to Subpart ZZZZ shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply



(2) Additional Terms and Conditions

- a. The hourly emission limitations for NO<sub>x</sub>, CO, OC, PE, and PM<sub>10</sub> are based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. The hourly emission limitation for SO<sub>2</sub> is based on the emissions unit's potential to emit assuming compliance with the diesel fuel sulfur content limitation specified in c)(1). Therefore, no additional monitoring, record keeping, and reporting requirements are necessary beyond those identified in d)(1) to ensure ongoing compliance with this emission limitation.
- c. The emissions unit shall be equipped with a catalytic oxidation system maintained and operated as follows, except during periods of startup, shutdown, and malfunction:
  - i. all emissions are vented to the catalytic oxidation system,
  - ii. the mass emissions of CO from the emissions unit are reduced by 70 percent or more,
  - iii. the catalyst inlet temperature is greater than or equal to 450 degrees F and less than or equal to 1350 degrees F,
  - iv. the 4-hour rolling average catalyst inlet temperature is maintained within the operating limitations for the catalyst inlet temperature established during the most recent performance test that demonstrated the emissions unit was in compliance; and
  - v. the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load, plus or minus 10 percent, from the pressure drop across the catalyst that was measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675 including Table 2a and Table 2b of Subpart ZZZZ)

c) Operational Restrictions

- (1) The sulfur content of the diesel fuel or biodiesel/diesel fuel blend used in this emissions unit shall not exceed 0.05 percent by weight.

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

- (2) The maximum annual operating hours for this emissions unit shall not exceed 725 hours, based upon a rolling, 12-month summation of the operating hours.

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



- (3) The amount of biodiesel fuel in the biodiesel/diesel fuel blend shall not exceed 10 percent by volume.

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

- (4) The permittee shall comply with the applicable operating restrictions required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6604	diesel fuel shall comply with 40 CFR 80.510(b) for non-road diesel fuel
63.6605(a) and (b)	general duty to minimize emissions
63.6625(h)	minimize idle and startup time, not to exceed 30 minutes

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)

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

- (1) The permittee shall maintain records of the fuel burned in this emissions unit in accordance with the following procedures:

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

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

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

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

- a. the percentage of biodiesel fuel in the biodiesel/diesel fuel blend combusted;



- b. the operating hours for each month;
- c. the rolling, 12-month summation of the operating hours;
- d. the total emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> for each month; and
- e. the updated rolling, 12-month summation of emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> (the total amount of emissions for the current month plus the total amount of emissions for the previous eleven calendar months).

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

- (3) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6625(b)	install, operate, and maintain a continuous parameter monitoring system (CPMS) for the catalyst inlet temperature in accordance with (b)(1) through (b)(5) and Table 5 of Subpart ZZZZ
63.6635	monitor continuously except for malfunctions, associated repairs, and required quality assurance activities
63.6640	monitoring methods and data collection for demonstrating continuous compliance in accordance with Table 6 of Subpart ZZZZ (catalyst inlet temperature, pressure drop, and performance tests)
63.6655(a)	required overall records to be maintained
63.6655(b)	records for each CPMS used to demonstrate compliance
63.6655(d)	records required in accordance with Table 6 of Subpart ZZZZ to show continuous compliance
63.6660	record format and retention requirements

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #P0105931, issued on 4/30/2010: d)(1)-d)(3). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these



requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. an identification of all exceedances of the rolling, 12-month limitation for annual operating hours;
  - b. an identification of all exceedances of the rolling, 12-month emission limitations for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>/PM<sub>2.5</sub>, and SO<sub>2</sub>;
  - c. an identification of all exceedances of the measured catalyst pressure drop limitation specified in b)(2)c.; and
  - d. an identification of all exceedances of the 4-hour rolling average catalyst inlet temperature as specified in b)(2)c.

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

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

- (2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable diesel fuel sulfur content limitation specified in c)(1) or in the percentage of biodiesel fuel in the biodiesel/diesel fuel blend specified in c)(3) of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

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

- (3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:

63.6630(c) and 63.6645	requirements for notification reports
63.6640(b) and (e)	submission of deviation reports
63.6650	submission of compliance reports in accordance with Table 7 of Subpart ZZZZ
63.6650(c) and (e)	content of compliance reports
63.6650(f)	Title V monitoring report allowance

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)



- (4) The permittee shall submit deviation reports within 30 days following the end of each calendar quarter documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances where the catalytic oxidation system did not comply with 40 CFR Part 63 or any limitation(s) specified in the terms and conditions of this permit, in units of the standard.

The permittee shall submit reports within 30 days following the end of each calendar quarter documenting any continuous monitoring system downtime and out-of-control time periods while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the continuous monitoring system while the emissions unit was on line shall be included in the quarterly report. The identification of each parameter monitored, a brief description of the emissions unit, a brief description of the continuous monitoring system, the date of the latest performance test, and a description of any changes in the continuous monitoring system, processes, or controls since the last reporting period shall also be included in the quarterly report.

If there are no deviations and no periods where the continuous monitoring system is out-of-control during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. Startup, shutdown, and malfunction information as specified in 40 CFR Part 63.10(d)(5)(i) shall be included in the report. The total operating time of the emissions unit and the total operating time of the continuous monitoring system while the emissions unit was on line shall also be included in the quarterly report. These quarterly compliance reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63.6580-6675)

- (5) The permittee shall submit annual reports that specify the total NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>/PM<sub>2.5</sub>, and SO<sub>2</sub> emissions from this emissions unit for the calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

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

- (6) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0105931, issued on 4/30/2010: e)(1)-e)(5). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.



f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

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

No visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

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

b. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 41.6 pounds per hour.

CO emissions shall not exceed 1.91 pounds per hour.

OC emissions shall not exceed 0.75 pound per hour.

PE and PM<sub>10</sub> emissions shall not exceed 1.71 pounds per hour.

SO<sub>2</sub> emissions shall not exceed 0.75 pound per hour.

Applicable Compliance Method:

The NO<sub>x</sub>, CO, OC, and PE/PM<sub>10</sub> emission limitations above are based upon the emissions unit's potential to emit and the manufacturer's emissions data provided with the application for PTI 14-05780, submitted October 18, 2005. Compliance with the CO emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in d)(3) and the performance testing requirements in f)(1)d. below. If required, compliance with the NO<sub>x</sub>, OC, PE, and PM<sub>10</sub> emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and the pollutant-specific Methods 7, 25, 5, and 201, respectively.

The SO<sub>2</sub> emission limitation above is based upon the emissions unit's potential to emit and the emission factor found in US EPA's AP-42, Section 3.4, Table 3.4-1, dated 10/1996. Compliance with the maximum sulfur content limitation for diesel fuel in c)(1) and the associated monitoring requirements in d)(1) will demonstrate



compliance with the SO<sub>2</sub> emission limitation. If required, compliance with the emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and Method 6.

Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

c. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 15.1 TPY\*.

CO emissions shall not exceed 0.69 TPY\*.

OC emissions shall not exceed 0.27 TPY\*.

PE and PM<sub>10</sub> emissions shall not exceed 0.62 TPY\*.

SO<sub>2</sub> emissions shall not exceed 0.27 TPY\*.

\*Based on rolling, 12-month summations.

Applicable Compliance Method:

The above emission limitations are based upon the operational restriction in c)(2) and the potential to emit, in lb/hr, for each pollutant. Compliance with the 12-month rolling emission limitations shall be assumed as long as compliance with the annual operating hours limitation in c)(2) is not exceeded as demonstrated by the record keeping requirements in d)(2).

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

d. Emission Limitation:

The mass emissions of CO from the emissions unit shall be reduced by 70 percent or more.

Applicable Compliance Methods:

The permittee shall demonstrate continuous compliance with the above emission limitations in accordance with the monitoring and record keeping requirements pursuant to Subpart ZZZZ and d)(3) of this permit.

The permittee shall comply with the applicable performance testing requirements required under 40 CFR Part 63, Subpart ZZZZ, including the following sections:



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63.6610	conduct initial performance test within 180 days of compliance date using test methods in Table 4 to Subpart ZZZZ
63.6615	conduct subsequent semiannual performance tests in accordance with Table 3 of Subpart ZZZZ except as specified by rule
63.6620	performance test methods and procedures to determine compliance in accordance with Table 4 of Subpart ZZZZ
63.6630(a) and (b)	initial performance test requirements
63.6640(b)	performance testing requirements after catalyst replacement
63.6645(g)	Notification of intent to conduct performance test

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR 63.6580-6675)

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #P0105931, issued on 4/30/2010: (f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.



8. Emissions Unit Group - CUP Package Boilers: B019 and B020

EU ID	Operations, Property and/or Equipment Description
B019	200 mmBtu/hour natural gas and No. 2 oil-fired boiler No. 1
B020	200 mmBtu/hour natural gas and No. 2 oil-fired boiler No. 2

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)  (PTI 14-2107, issued 1/24/1991)	<u>When combusting natural gas:</u>  PE shall not exceed 0.005 pound per mmBtu;  SO <sub>2</sub> emissions shall not exceed 0.6 pound per mmcf of natural gas burned;  CO emissions shall not exceed 0.03 pound per mmBtu;  VOC emissions shall not exceed 0.001 pound per mmBtu; and  NO <sub>x</sub> emissions shall not exceed 0.20 pound per mmBtu.  <u>When combusting No. 2 fuel oil:</u>  PE shall not exceed 0.02 pound per mmBtu;  SO <sub>2</sub> emissions shall not exceed 0.3 pound per mmBtu;  CO emissions shall not exceed 0.03 pound per mmBtu;



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>VOC emissions shall not exceed 0.001 pound per mmBtu; and</p> <p>NOx emissions shall not exceed 0.20 pound per mmBtu.</p> <p>See b)(2)a., b)(2)b., b)(2)c., and c)(1).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D), OAC rule 3745-17-07(A)(1), and 40 CFR Part 60, Subpart Db.</p>
b.	<p>OAC rule 3745-31-05(D)</p> <p>Synthetic Minor Limitations to Avoid Prevention of Significant Deterioration (PSD) New Source Review</p>	<p>PE from emissions units B019 and B020, combined, shall not exceed 5.08 TPY, based upon a rolling, 12-month summation.</p> <p>SO<sub>2</sub> emissions from emissions units B019 and B020, combined, shall not exceed 21.06 TPY, based upon a rolling, 12-month summation.</p> <p>CO emissions from emissions units B019 and B020, combined, shall not exceed 24.5 TPY, based upon a rolling, 12-month summation.</p> <p>VOC emissions from emissions units B019 and B020, combined, shall not exceed 0.82 TPY, based upon a rolling, 12-month summation.</p> <p>NOx emissions from emissions units B019 and B020, combined, shall not exceed 163.3 TPY, based upon a rolling, 12-month summation.</p> <p>See c)(2), c)(3), and c)(4).</p>
c.	<p>OAC rule 3745-17-07(A)(1)</p>	<p>When combusting No. 2 fuel oil, the visible emission limitations specified by this rule are less stringent than the visible emission limitations established pursuant to 40 CFR Part 60, Subpart Db.</p> <p>When combusting natural gas, visible</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	The emission limitations specified by this rule are less stringent than or equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-18-37(K)(3)	The emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3) for the combustion of No. 2 fuel oil.
f.	<p>40 CFR Part 60, Subpart Db (40 CFR 60.40b-60.49b)</p> <p>Standards of Performance (NSPS) for Industrial-Commercial- Institutional Steam Generating Units</p>	<p>When combusting No. 2 fuel oil, visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except for one six-minute period per hour of not more than 27 percent opacity, except as provided by 60.43b(g).</p> <p>The NO<sub>x</sub> emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>The SO<sub>2</sub> emission limitation for very low sulfur fuel specified by this rule is less stringent than the SO<sub>2</sub> emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
g.	<p>40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575)</p> <p>National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters</p> <p>[In accordance with 40 CFR 63.7499 and 63.7575, these emissions units are existing boilers designed to burn liquid fuel (No. 2 fuel oil) or natural gas. Therefore, the units may be subject to the subcategory requirements for units designed to burn liquid fuel, units designed to burn light liquid fuel, and/or units</p>	<p>Applicable Emission Limits in Table 2; Work Practice Standards in Table 3; and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63.</p> <p>Pursuant to 40 CFR 63.7495(b), the permittee shall comply with this subpart no later than January 31, 2016, except as provided in 63.6(i).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	designed to burn gas 1 fuel as defined in this subpart. The permittee shall comply with the emission limitations and operating limitations for the applicable fuel subcategory specified in this section.]	
h.	40 CFR Part 63.1-15 (40 CFR 63.7505)	Table 10 to 40 CFR Part 63, Subpart DDDDD – Applicability of General Provisions (Subpart A) to Subpart DDDDD shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply.

(2) Additional Terms and Conditions

- a. The permittee shall operate and maintain low NOx gas burners on emissions units B019 and B020.
- b. The pound per mmBtu emission limitations for PE, CO, and VOC are based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- c. The particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3) for No. 2 fuel oil combustion is less stringent than the emission limitation established pursuant to 40 CFR Part 63, Subpart DDDDD, Table 2. The permittee shall comply with all applicable emission limitations (including any less stringent emission limitation) after the compliance date in 40 CFR Part 63, Subpart DDDDD.
- d. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).
- e. The permittee shall maintain a written quality assurance/quality control plan for the continuous NOx and O<sub>2</sub> monitoring systems, designed to ensure continuous valid and representative readings of NOx and O<sub>2</sub> 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 NOx and O<sub>2</sub> monitoring systems 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.

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

- f. 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.

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

- g. The continuous emission monitoring systems consist 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, and Appendix F to 40 CFR Part 60)

- h. 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, and Appendix F to 40 CFR Part 60)

c) **Operational Restrictions**

- (1) The quality of the oil burned in these emissions units shall have a combination of heat content and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.3 pound of SO<sub>2</sub> per mmBtu of actual heat input on an "as received" basis and a maximum sulfur content of 0.39 percent by weight.

Compliance with the above-mentioned fuel oil specifications shall be determined by the record keeping requirements in d)(9).

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



- (2) The maximum annual No. 2 fuel oil usage rate for emissions units B019 and B020, combined, shall not exceed 983,802 gallons per rolling, 12-month period.

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

- (3) The maximum annual natural gas usage rate for emissions units B019 and B020, combined, shall not exceed 1,491,333,333 cubic feet per rolling, 12-month period.

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

- (4) The total annual heat input rate for emissions units B019 and B020, combined, shall not exceed 1,633,100 mmBtu per rolling, 12-month period.

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

- (5) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the fuel usage and heat input upon issuance of this permit.

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

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

- (1) The permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for distillate oil and natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

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

- (2) The permittee shall maintain monthly records of the following information:

- a. the total quantity of natural gas burned, in cubic feet per month, for emissions units B019 and B020 combined;
- b. the rolling, 12-month summation of the total quantity of natural gas burned, in cubic feet, for emissions units B019 and B020 combined;
- c. the total quantity of No. 2 fuel oil burned, in gallons per month, for emissions units B019 and B020 combined;
- d. the rolling, 12-month summation of the total quantity of No. 2 fuel oil burned, in gallons, for emissions units B019 and B020 combined;
- e. the total heat input of the natural gas and No.2 fuel oil burned, in mmBtu per month, for emissions units B019 and B020 combined ((average heat content of No. 2 fuel oil based upon the results of the analyses of the fuel burned that month X monthly gallons of fuel oil burned) + (1000 Btu/cubic foot X monthly cubic feet of natural gas burned))/1,000,000); and



- f. the rolling, 12-month summation of the total heat input, in mmBtu, for emissions units B019 and B020 combined.

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

- (3) The permittee shall operate and maintain equipment to continuously monitor and record NOx emissions from this emissions unit in units of the applicable standard(s). 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 NOx monitoring system including, but not limited to:

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

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)



- (4) The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO<sub>x</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. 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), OAC rule 3745-31-05(A)(3), 40 CFR 60.13, 40 CFR 60.48b(b), and 40 CFR Part 60, Appendix B)

- (5) The permittee shall operate and maintain equipment to continuously monitor and record O<sub>2</sub> emitted from this emissions unit in percent O<sub>2</sub>. 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 O<sub>2</sub> monitoring system including, but not limited to:

- a. the percent O<sub>2</sub> 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 O<sub>2</sub> monitoring system;
- f. the date, time, and hours of operation of the emissions unit without the continuous O<sub>2</sub> monitoring system;
- g. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous O<sub>2</sub> monitoring system; as well as,
- 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)



- (6) The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O<sub>2</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 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)

- (7) The permittee shall operate and maintain the continuous opacity monitoring system 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 continuous opacity monitoring system 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, continuous opacity monitoring system, and control equipment;
- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
- 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)

- (8) 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 continuous opacity monitoring system has been certified to meet the requirements of 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)



- (9) The permittee shall maintain records of the oil burned in this emissions unit in accordance with the following procedures:
- a. For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.
  - b. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

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

- (10) The PTI for this emissions unit was evaluated based on information contained in the PTI application associated with this emissions unit. Prior to any physical change or change in the method of operation (i.e. using an alternative fuel) associated with this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation, is (are) defined as a modification, then the permittee shall obtain a final PTI modification prior to performing such a change and shall incorporate such changes into the Title V permit following the procedures for a minor permit modification or significant permit modification, as appropriate.

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

- (11) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-2107, issued on 1/24/1991: d)(1)-d)(10). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.



e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. an identification of all exceedances of the rolling, 12-month natural gas usage limitation (combined total for B019 and B020);
  - b. an identification of all exceedances of the rolling, 12-month No. 2 fuel oil usage limitation (combined total for B019 and B020);
  - c. an identification of all exceedances of the rolling, 12-month heat input limitation (combined total for B019 and B020);
  - d. an identification of all exceedances of the SO<sub>2</sub> emission limitation in pound per mmBtu (based upon each shipment of oil); and
  - e. an identification of all exceedances of the sulfur content limitation in percent by weight (based upon each shipment of oil).

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

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

- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO<sub>x</sub> monitoring system:
  - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 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 NO<sub>x</sub> emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, 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 NO<sub>x</sub> and other associated monitors;



- iii. a description of any change in the equipment that comprises the continuous emission monitoring system (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)

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



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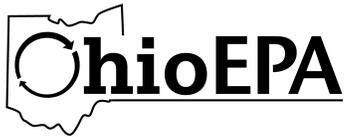
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- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of 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 continuous opacity monitoring system (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)

- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous O<sub>2</sub> 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 O<sub>2</sub> 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 O<sub>2</sub> and other associated monitors;
    - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (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 O<sub>2</sub> 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 O<sub>2</sub> 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 O<sub>2</sub> monitoring system while the emissions unit was in operation;
    - x. the date, time, and duration of any downtime\* of the continuous O<sub>2</sub> 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)

- (5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-2107, issued on 1/24/1991: e)(1)-e)(4). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) **Testing Requirements**

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

a. **Emission Limitations:**

When combusting natural gas, visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

When combusting No. 2 fuel oil, visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except for one six-minute period per hour of not more than 27 percent opacity, except as provided by 60.43b(g).

**Applicable Compliance Method:**

Ongoing compliance with the opacity limitations contained in this permit, including 40 CFR Part 60, Subpart Db, 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.

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

b. **Emission Limitations:**

PE shall not exceed 0.005 pound per mmBtu when combusting natural gas.

PE shall not exceed 0.02 pound per mmBtu when combusting No. 2 fuel oil.



Applicable Compliance Method:

The PE emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-2107, submitted June 21, 1990.

If required, the permittee shall demonstrate compliance with these emission limitations through separate emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 while firing natural gas and while firing No. 2 fuel oil.

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

c. Emission Limitations:

CO emissions shall not exceed 0.03 pound per mmBtu, when combusting natural gas or No. 2 fuel oil.

VOC emissions shall not exceed 0.001 pound per mmBtu, when combusting natural gas or No. 2 fuel oil.

Applicable Compliance Method:

The CO and VOC emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-2107, submitted June 21, 1990.

If required, the permittee shall demonstrate compliance with these emission limitations through separate emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, 7, and 10 while firing natural gas and while firing No. 2 fuel oil.

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

d. Emission Limitations:

SO<sub>2</sub> emissions shall not exceed 0.6 pound per mmcf of natural gas burned; and

SO<sub>2</sub> emissions shall not exceed 0.3 pound per mmBtu, when combusting No. 2 fuel oil.

Applicable Compliance Method:

For the combustion of natural gas, the SO<sub>2</sub> emission limitation above is based upon the emissions unit's potential to emit and a vendor-supplied emission factor taken from US EPA AP-42, dated 10/1986, and provided with the application for PTI 14-2107, submitted June 21, 1990. Compliance may be determined by using the most recent SO<sub>2</sub> emission factor found in AP-42 Section 1.4, Table 1.4-2, dated 7/1998.



For the combustion of No. 2 fuel oil, continuous compliance with the allowable sulfur dioxide emission limitation above shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation in accordance with the record keeping requirements in d)(9).

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

e. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 0.20 pound per mmBtu, when combusting natural gas or No. 2 fuel oil.

Applicable Compliance Method:

The NO<sub>x</sub> emission limitation above is based upon the allowable limit for natural gas and fuel oil-fired steam generating units in 40 CFR Part 60.44b.

Ongoing compliance with the NO<sub>x</sub> emission limitations contained in this permit, including 40 CFR Part 60, Subpart Db, 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.

(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 and F)

f. Emission Limitations:

PE from emissions units B019 and B020, combined, shall not exceed 5.08 TPY, based upon a rolling, 12-month summation;

SO<sub>2</sub> emissions from emissions units B019 and B020, combined, shall not exceed 21.06 TPY, based upon a rolling, 12-month summation;

CO emissions from emissions units B019 and B020, combined, shall not exceed 24.5 TPY, based upon a rolling, 12-month summation;

VOC emissions from emissions units B019 and B020, combined, shall not exceed 0.82 TPY, based upon a rolling, 12-month summation; and

NO<sub>x</sub> emissions from emissions units B019 and B020, combined, shall not exceed 163.3 TPY, based upon a rolling, 12-month summation.

Applicable Compliance Method:

The above emission limitations are based upon the operational restrictions in c)(2) - c)(4) and the short-term emission rates or potential to emit, in lb/mmBtu or lb/mmmcf, for each pollutant. Compliance with the 12-month rolling emission limitations for emissions units B019 and B020 shall be assumed as long as



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compliance with the short-term limitations are maintained, the fuel usages listed in c)(2) and c)(3) are not exceeded, and the combined heat input listed in c)(4) is not exceeded.

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

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-2107, issued on 1/24/1991: (f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.



9. Emissions Unit Group -Combustion Turbines: P003 and P004

EU ID	Operations, Property and/or Equipment Description
P003	13.5 MW Natural Gas/ No. 2 Fuel Oil-fired Turbines with 98.5 mmBtu/hr duct burner
P004	13.5 MW Natural Gas/ No. 2 Fuel Oil-fired Turbines with 98.5 mmBtu/hr duct burner

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) 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 14-05950, issued 6/12/2008)	<u>Emission Limitations During Normal Operation without Duct Burner Firing:</u>  PE shall not exceed 1.08 pounds per hour;  SO <sub>2</sub> emissions shall not exceed 0.10 pound per hour;  OC emissions shall not exceed 0.56 pound per hour; and  CO emissions shall not exceed 1.97 pounds per hour.  <u>Emission Limitations During Normal Operation with Duct Burner Firing:</u>  PE shall not exceed 2.07 pounds per hour;  SO <sub>2</sub> emissions shall not exceed 0.16 pound per hour;  OC emissions shall not exceed 0.78 pound per hour; and



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>CO emissions shall not exceed 2.84 pounds per hour.</p> <p><u>Emission Limitations During Backup Operation:</u></p> <p>PE shall not exceed 1.79 pounds per hour;</p> <p>SO<sub>2</sub> emissions shall not exceed 7.54 pounds per hour;</p> <p>OC emissions shall not exceed 0.55 pound per hour; and</p> <p>CO emissions shall not exceed 1.92 pounds per hour.</p> <p>See b)(2)a. through b)(2)d., c)(1), and c)(2).</p> <p>The requirements of this rule include compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D).</p>
b.	<p>OAC rules 3745-31-10 through 3745-31-20</p> <p>Prevention of Significant Deterioration</p>	<p><u>Emission Limitations During Normal Operation without Duct Burner Firing:</u></p> <p>Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 25 ppmvd at 15% oxygen and 14.71 pounds per hour; and</p> <p>Particulate matter 10 microns and less in diameter (PM<sub>10</sub>) emissions shall not exceed 0.0073 pound per mmBtu and 1.08 pounds per hour.</p> <p><u>Emission Limitations During Normal Operation with Duct Burner Firing:</u></p> <p>NO<sub>x</sub> emissions shall not exceed 0.10 pound per mmBtu and 24.56 pounds per hour; and</p> <p>PM<sub>10</sub> emissions shall not exceed 0.0084 pound per mmBtu and 2.07 pounds per hour.</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><u>Emission Limitations During Backup Operation:</u></p> <p>NO<sub>x</sub> emissions shall not exceed 96 ppmvd at 15% oxygen and 54.91 pounds per hour; and</p> <p>PM<sub>10</sub> emissions shall not exceed 0.013 pound per mmBtu and 1.79 pounds per hour.</p> <p><u>Emission Limitations from the Turbines and Duct Burners for Emissions Units P003 and P004, combined, at all load conditions, including startup, shutdown, normal operation, and backup operation:</u></p> <p>NO<sub>x</sub> emissions shall not exceed 183.0 TPY *;</p> <p>PM<sub>10</sub> emissions shall not exceed 14.0 TPY*; and</p> <p>Benzene emissions shall not exceed 0.0026 TPY*.</p> <p>*Based on a rolling, 12-month summation.</p> <p>PM<sub>10</sub> is assumed to be equivalent to PE.</p> <p>See c)(3) through c)(8).</p>
c.	OAC rule 3745-31-05(D)	<p><u>Emission Limitations from the Turbines and Duct Burners for Emissions Units P003 and P004, combined, at all load conditions, including startup, shutdown, normal operation, and backup operation:</u></p> <p>PE shall not exceed 14.0 TPY*;</p> <p>SO<sub>2</sub> emissions shall not exceed 3.3 TPY*;</p> <p>OC emissions shall not exceed 6.7 TPY*; and</p> <p>CO emissions shall not exceed 85.7</p>



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		TPY*.  *Based on a rolling, 12-month summation.  See c)(3) through c)(8).
d.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-11(B)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-18-06(F)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	40 CFR Part 75 and OAC Chapter 3745-103  Acid Rain	See b)(2)k.
h.	40 CFR Part 60, Subpart GG (40 CFR 60.330-60.335)  Standards of Performance (NSPS) for Stationary Gas Turbines	The emission standards specified by this rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and OAC rule 3745-31-10 through 3745-31-20.  See b)(2)j.
i.	40 CFR Part 60, Subpart Dc (40 CFR 60.40c-60.48c)  Standards of Performance (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units	The emission standards specified by this rule for natural gas combustion in the duct burners are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).  See b)(2)j.
j.	40 CFR Part 63, Subpart YYYY (40 CFR 63.6080-6175) [In accordance with 40 CFR 63.6090(a) and (a)(1), these emissions units are existing stationary combustion turbines constructed on or before January 14, 2003.]	Exempt from Subpart YYYY and Subpart A of 40 CFR Part 63 pursuant to 63.6090(b)(4).

(2) Additional Terms and Conditions



- a. The pound per hour emission limitations for PE, PM<sub>10</sub>, SO<sub>2</sub>, and OC are based on the emissions unit's potential to emit. Therefore, no hourly monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- b. Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average, except during periods of malfunction as provided in OAC rule 3745-17-07(A)(3)(c).
- c. When burning natural gas, during startup/shutdown cycle, the following emission limits shall not be exceeded for each emissions unit:
  - i. 30.0 pounds of NO<sub>x</sub> per startup/shutdown cycle; and
  - ii. 275 pounds of CO per startup/shutdown cycle.
- d. When burning diesel fuel, during startup/shutdown cycle, the following emission limits shall not be exceeded for each emissions unit:
  - i. 72.0 pounds of NO<sub>x</sub> per startup/shutdown cycle; and
  - ii. 275 pounds of CO per startup/shutdown cycle.
- e. "Normal Operation" shall be defined as the period when the combustion turbine achieves dry low NO<sub>x</sub> (SoLoNox) mode, burning natural gas at steady state operation, between an electrical output of 7.25 megawatts and full load.
- f. "Backup Operation" shall be defined as the period when the combustion turbine achieves dry low NO<sub>x</sub> (SoLoNox) mode, burning diesel fuel at steady state operation, between an electrical output of 9.43 megawatts and full load. Duct burners shall not operate during periods of backup operation.
- g. "Full Load" shall be defined as a load equal to the maximum actual electrical output of 13.5 megawatts (depending on the ambient temperature and relative humidity).
- h. "Startup" shall be defined as the period between initial fuel light-off in the combustion turbine until the combustion turbine reaches normal or backup operations.
- i. "Shutdown" shall be defined as the period beginning when the combustion turbine leaves normal or backup operations until combustion has ceased.
- j. Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting the applicable monitoring, record keeping, and reporting requirements of 40 CFR Part 60, Subpart GG and Subpart Dc.

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.

- k. If the permittee becomes subject to the requirements of OAC Chapter 3745-103 and 40 CFR Part 75 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.

- l. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO<sub>x</sub>, CO, and O<sub>2</sub> monitoring systems, designed to ensure continuous valid and representative readings of NO<sub>x</sub>, CO, and O<sub>2</sub> 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<sub>x</sub>, CO, and O<sub>2</sub> monitoring systems 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.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(A)(3), 40 CFR 60.13, 40 CFR Part 60, Subpart GG, and 40 CFR Part 60, Appendix F)

- m. The continuous emission monitoring systems consist 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, and Appendix F to 40 CFR Part 60)

c) **Operational Restrictions**

- (1) The permittee shall only burn natural gas in the duct burner portion of each emissions unit and, except as allowed in c)(3) below, the permittee shall only burn natural gas in the combustion turbine portion of each emissions unit. The maximum sulfur content of natural gas shall not exceed 2 grains per 100 standard cubic feet.

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

- (2) The sulfur content of the diesel fuel used in the combustion turbines shall not exceed 0.05 percent by weight.

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



- (3) The maximum annual operating hours while burning diesel fuel in the combustion turbines for emissions units P003 and P004, combined, shall not exceed 576 hours, based upon a rolling, 12-month summation of the operating hours.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (4) The maximum annual natural gas usage in the duct burners of emissions units P003 and P004, combined, shall not exceed 1000 million standard cubic feet, based upon a rolling, 12-month summation of the natural gas usage figures.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (5) Duct burners shall not operate during backup mode operation.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (6) The number of startup/shutdown cycles per year shall not exceed 480 cycles for emissions units P003 and P004, combined.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (7) A startup/shutdown cycle shall not exceed a maximum total duration of 60 minutes.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (8) The maximum annual heat input rate to the combustion turbines of emissions units P003 and P004, combined, shall not exceed 2,354,400 mmBtu, based upon a rolling, 12-month summation of the fuel usage figures.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

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

- (1) The permittee shall maintain daily records of the following information:

- a. the emissions unit's actual electrical output for each operating hour;
- b. the natural gas usage rate in the duct burner of each emissions unit; and
- c. for each day during which the permittee burns a fuel other than natural gas and/or diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in each emissions unit.

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



- (2) The permittee shall perform weekly checks, when the emissions unit is in operation, during daylight hours, and when weather conditions allow, for any visible particulate emissions from the stack/stacks serving this/these emissions unit(s). The presence or absence of any visible emissions shall be noted in an operation log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and,
  - e. any corrective actions taken to eliminate the visible emissions.

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

- (3) The permittee shall maintain monthly records of the following information from emissions units P003 and P004, combined:
- a. the natural gas usage rate in the combustion turbines for each month, in standard cubic feet;
  - b. the natural gas usage rate in the duct burners for each month, in standard cubic feet;
  - c. the diesel fuel usage rate in the combustion turbines for each month, in gallons;
  - d. the hours of operation of the combustion turbines;
  - e. the hours of operation of the duct burners and the fuel used during those hours of operation;
  - f. the hours of operation of the combustion turbines while burning diesel fuel;
  - g. the number of startup/shutdown cycles for each month;
  - h. the rolling, 12-month summation of the hours of operation of the combustion turbines while burning diesel fuel;
  - i. the rolling, 12-month summation of the natural gas usage rate in the duct burners;
  - j. the monthly emission rate for NO<sub>x</sub>, CO, SO<sub>2</sub>, PE, PM<sub>10</sub>, and OC, in tons;
  - k. the rolling, 12-month summation of NO<sub>x</sub>, CO, SO<sub>2</sub>, PE, PM<sub>10</sub>, and OC, in tons; and



- I. the rolling, 12-month summation of the actual heat input rate to the combustion turbines.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (4) The permittee shall maintain monthly records of the following information for each emissions unit in order to monitor compliance with the startup and shutdown emission limitations and operational restrictions:

- a. the date and duration, in minutes, of each startup and shutdown cycle;
- b. the emissions, in pounds, for NO<sub>x</sub> and CO when burning natural gas for each startup and shutdown cycle; and
- c. the emissions, in pounds, for NO<sub>x</sub> and CO when burning diesel fuel for each startup and shutdown cycle.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (5) The permittee shall use the continuous NO<sub>x</sub> and CO emissions monitoring data to determine the NO<sub>x</sub> and CO emissions for these emissions units. During any period when the NO<sub>x</sub> and/or the CO emissions monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine NO<sub>x</sub> and CO (although 40 CFR Part 75 pertains mainly to determining NO<sub>x</sub> and SO<sub>2</sub> emissions and not to determining CO emissions, the permittee may use the same procedures allowed in 40 CFR Part 75 to determine NO<sub>x</sub> emissions to determine CO emissions) emissions or an approved data substitution protocol. The data substitution values shall not be used to demonstrate compliance with the hourly NO<sub>x</sub> and CO emission limitations applicable during normal or backup operation of the emissions units.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (6) The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from the emissions units in units of the applicable standard(s). 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 NO<sub>x</sub> monitoring system including, but not limited to:

- a. emissions of NO<sub>x</sub> in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of NO<sub>x</sub> in pounds per hour, pounds per mmBtu, and in ppmvd@15% O<sub>2</sub> in the appropriate averaging periods;
- c. results of quarterly cylinder gas audits;



- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- f. hours of operation of the emissions unit, continuous NO<sub>x</sub> monitoring system, and control equipment;
- g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO<sub>x</sub> monitoring system;
- h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO<sub>x</sub> monitoring system; as well as,
- i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

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), OAC rules 3745-31-10 through 3745-31-20, 40 CFR Part 60, Subpart GG, 40 CFR 60.13, and 40 CFR Part 60, Appendices B & F)

- (7) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO<sub>x</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) 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), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, 40 CFR Part 60, Subpart GG, 40 CFR 60.13, and 40 CFR Part 60, Appendix B)

- (8) The permittee shall operate and maintain equipment to continuously monitor and record CO emissions from the emissions units in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60.

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

- a. emissions of CO in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of CO in pounds per hour and in units of the applicable standard(s) in the appropriate averaging period;



- c. results of quarterly cylinder gas audits;
- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- f. hours of operation of the emissions unit, continuous CO monitoring system, and control equipment;
- g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO monitoring system;
- h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO monitoring system; as well as,
- i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

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), OAC rule 3745-31-05(D), 40 CFR Part 60, Subpart GG, 40 CFR 60.13, and 40 CFR Part 60, Appendices B & F)

- (9) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous carbon monoxide (CO) monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 4 or 4a (as appropriate) and 6. The letter(s)/document(s) 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), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), 40 CFR Part 60, Subpart GG, 40 CFR 60.13, and 40 CFR Part 60, Appendix B)

- (10) The permittee shall operate and maintain equipment to continuously monitor and record O<sub>2</sub> emitted from the emissions units in percent O<sub>2</sub>. 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 O<sub>2</sub> monitoring system including, but not limited to:

- a. the percent O<sub>2</sub> 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 and continuous O<sub>2</sub> monitoring system;
- f. the date, time, and hours of operation of the emissions unit without the continuous O<sub>2</sub> monitoring system;
- g. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous O<sub>2</sub> monitoring system; as well as,
- 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), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, 40 CFR Part 60, Subpart GG, 40 CFR 60.13, and 40 CFR Part 60, Appendices B & F)

- (11) The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous O<sub>2</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 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), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, 40 CFR Part 60, Subpart GG, 40 CFR 60.13, and 40 CFR Part 60, Appendix B)

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



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

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

- (13) The permittee maintain records demonstrating that the natural gas fired in each emission unit meets the definition of natural gas in 40 CFR 60.331(u). The permittee shall use one of the following sources of information to make the required demonstration:
  - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content if the fuel is 2.0 grains/100 scf or less; or
  - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 2.0 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR 75 is required.

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

- (14) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements in this permit are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-05950, issued on June 12, 2008: d)(1) through d)(13). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. an identification of all exceedances of the NO<sub>x</sub> and CO emission limitations specified in b)(2)c. and b)(2)d. during startup/shutdown cycles;
  - b. an identification of all exceedances of the maximum sulfur content of natural gas specified in c)(1);
  - c. an identification of all exceedances of the rolling, 12-month limitation for annual operating hours while burning diesel fuel specified in c)(3);



- d. an identification of all exceedances of the rolling, 12-month limitation for natural gas usage in the duct burners specified in c)(4);
- e. an identification of all exceedances of the maximum number of startup/shutdown cycles per year specified in c)(6);
- f. an identification of all exceedances of the maximum total duration for each startup/shutdown cycle specified in c)(7); and
- g. an identification of all exceedances of the rolling, 12-month limitation for the annual heat input rate specified in c)(8).

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

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(D), and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO<sub>x</sub> monitoring system:

- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 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 NO<sub>x</sub> emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, 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).

These excess emission report requirements are more stringent than or equivalent to the reporting requirements pursuant to 40 CFR Part 60.334 and 60.7(c) and compliance with these requirements shall satisfy the reporting requirements of 40 CFR Part 60, Subpart GG.

- 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 NO<sub>x</sub> and other associated monitors;
  - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (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;



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University of Cincinnati

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**Effective Date:** To be entered upon final issuance

- 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), 40 CFR Part 60.7, 40 CFR Part 60, Subpart GG, OAC rules 3745-31-10 through 3745-31-20, and OAC Rule 3745-31-05(A)(3))

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO monitoring system:
  - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 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 CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-21, 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 CO and other associated monitors;
  - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (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 CO emissions for the calendar quarter (tons);
  - vi. the total operating time (hours) of the emissions unit;
  - vii. the total operating time of the continuous CO 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 CO 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 CO monitoring system, emissions unit, and/or control equipment;
  - xii. the date, time, and duration of any downtime\*\* of the continuous CO 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), 40 CFR Part 60.7, OAC rule 3745-31-05(D), and OAC rule 3745-31-05(A)(3))

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous O<sub>2</sub> 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 O<sub>2</sub> monitoring system downtime and malfunction while the emissions unit was on line.

These continuous monitoring system reporting requirements are more stringent than or equivalent to the reporting requirements pursuant to 40 CFR Part 60.334 and 60.7(c) and compliance with these requirements shall satisfy the reporting requirements of 40 CFR Part 60, Subpart GG.

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 O<sub>2</sub> and other associated monitors;
- iii. a description of any change in the equipment that comprises the continuous emission monitoring system (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 O<sub>2</sub> 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 O<sub>2</sub> 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 O<sub>2</sub> monitoring system while the emissions unit was in operation;
- x. the date, time, and duration of any downtime\* of the continuous O<sub>2</sub> 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 Part 60.7, 40 CFR Part 60, Subpart GG, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(A)(3))

- (5) The permittee shall submit semiannual written reports that identify:
  - a. all weeks during which any visible particulate emissions were observed from the stack(s) serving the emissions unit; and
  - b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

- (6) The permittee shall submit annual reports which specify the total NO<sub>x</sub>, SO<sub>2</sub>, OC, PE, PM<sub>10</sub> and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year. The Title V Fee Emission Report (FER) required to be submitted annually by April 15 for the facility will also satisfy the emission reporting requirement of this condition.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

- (7) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable diesel fuel sulfur content limitation specified in c)(2) of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.



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

- (8) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the reporting requirements in this permit are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-05950, issued on June 12, 2008: e)(1) through e)(7). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitations:

i. During Normal Operation without Duct Burner Firing:

PE shall not exceed 1.08 pounds per hour;

SO<sub>2</sub> emissions shall not exceed 0.10 pound per hour;

OC emissions shall not exceed 0.56 pound per hour;

CO emissions shall not exceed 1.97 pounds per hour;

NO<sub>x</sub> emissions shall not exceed 25 ppmvd at 15% oxygen and 14.71 pounds per hour; and

PM<sub>10</sub> emissions shall not exceed 0.0073 pound per mmBtu and 1.08 pounds per hour.

ii. During Normal Operation with Duct Burner Firing:

PE shall not exceed 2.07 pounds per hour;

SO<sub>2</sub> emissions shall not exceed 0.16 pound per hour;

OC emissions shall not exceed 0.78 pound per hour;

CO emissions shall not exceed 2.84 pounds per hour;

NO<sub>x</sub> emissions shall not exceed 0.10 pound per mmBtu and 24.56 pounds per hour; and

PM<sub>10</sub> emissions shall not exceed 0.0084 pound per mmBtu and 2.07 pounds per hour.



iii. During Backup Operation:

PE shall not exceed 1.79 pounds per hour;

SO<sub>2</sub> emissions shall not exceed 7.54 pounds per hour;

OC emissions shall not exceed 0.55 pound per hour;

CO emissions shall not exceed 1.92 pounds per hour;

NO<sub>x</sub> emissions shall not exceed 96 ppmvd at 15% oxygen and 54.91 pounds per hour; and

PM<sub>10</sub> emissions shall not exceed 0.013 pound per mmBtu and 1.79 pounds per hour.

iv. During Startup/Shutdown Cycle:

When burning natural gas, 30.0 pounds of NO<sub>x</sub> per startup/shutdown cycle and 275 pounds of CO per startup/shutdown cycle; and

When burning diesel fuel, 72.0 pounds of NO<sub>x</sub> per startup/shutdown cycle and 275 pounds of CO per startup/shutdown cycle.

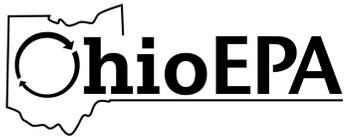
**Applicable Compliance Methods:**

The PE, OC, and PM<sub>10</sub> emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-05950, submitted May 23, 2007. All particulate emissions (PE) are assumed to be equivalent to PM<sub>10</sub> emissions. If required, compliance with these emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and the pollutant-specific Methods 5, 25, and 201, respectively.

The SO<sub>2</sub> emission limitations above are based upon the emissions unit's potential to emit and the US EPA AP-42 emission factors found in Section 3.1, Table 3.1-2a, dated 4/2000. Compliance with the maximum sulfur content limitations for natural gas and diesel fuel in c)(1) and c)(2) and the associated monitoring requirements in d)(12) and d)(13) will demonstrate compliance with the SO<sub>2</sub> emission limitations. If required, compliance with the emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and Method 6.

Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The NO<sub>x</sub> and CO emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-05950, submitted May 23, 2007.



**Preliminary Proposed Title V Permit**

University of Cincinnati

**Permit Number:** P0109189

**Facility ID:** 1431070849

**Effective Date:** To be entered upon final issuance

Ongoing compliance with the NO<sub>x</sub> emissions 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.

Ongoing compliance with the CO 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 requirements of 40 CFR Part 60.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, 40 CFR 60.13, and 40 CFR Part 60, Appendices B & F)

b. Emission Limitations:

During all load conditions, including startup, shutdown, normal operation, and backup operation, from the turbines and duct burners for emissions units P003 and P004, combined:

PE shall not exceed 14.0 TPY, as a rolling 12-month summation;

SO<sub>2</sub> emissions shall not exceed 3.3 TPY, as a rolling 12-month summation;

OC emissions shall not exceed 6.7 TPY, as a rolling 12-month summation;

CO emissions shall not exceed 85.7 TPY, as a rolling 12-month summation;

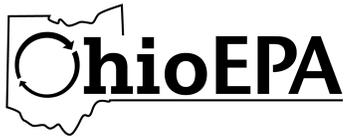
NO<sub>x</sub> emissions shall not exceed 183.0 TPY, as a rolling 12-month summation;

PM<sub>10</sub> emissions shall not exceed 14.0 TPY, as a rolling 12-month summation;  
and

Benzene emissions shall not exceed 0.0026 TPY, as a rolling 12-month summation.

Applicable Compliance Methods:

The PE, PM<sub>10</sub>, SO<sub>2</sub>, OC, CO, and NO<sub>x</sub> emission limitations above are based upon the emission factors used to establish the short-term potential to emit (pound per hour or pound per mmBtu) for each pollutant and the operational restrictions established in c)(3) through c)(8) of this permit. Compliance with the 12-month rolling PE, PM<sub>10</sub>, SO<sub>2</sub>, OC, CO, and NO<sub>x</sub> emission limitations above shall be demonstrated by the record keeping requirements in d)(3).



The benzene emission limitation above is based upon the potential to emit and US EPA AP-42 emission factors found in Section 3.1, Table 3.1-3, dated 4/2000, and the operational restrictions established in c)(3) through c)(8) of this permit. Compliance with the 12-month rolling benzene emission limitation shall be assumed as long as compliance with the operational restrictions in c)(3) through c)(8) of this permit are not exceeded.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(D))

c. Emission Limitation:

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

Applicable Compliance Method:

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

No Method 9 visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

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

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-05950, issued on 6/12/2008: (f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

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

(Authority for term: OAC rule 3745-77-01(C)(1) and ORC 3704.03(F)(3)(c) and F(4))



10. Emissions Unit Group - ECUP Chiller RICE: P001 and P002

EU ID	Operations, Property and/or Equipment Description
P001	12 mmBtu/hour natural gas-fired small bore stationary internal combustion engine, equipped with lean burn controls on chiller unit No. 1
P002	12 mmBtu/hour natural gas-fired small bore stationary internal combustion engine, equipped with lean burn controls on chiller unit No. 2

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)  (PTI 14-4484, issued 3/25/1998)	PE and PM <sub>10</sub> emissions shall not exceed 0.040 pound per mmBtu;  CO emissions shall not exceed 6.2 pounds per hour;  VOC emissions shall not exceed 2.2 pounds per hour; and  NOx emissions shall not exceed 6.75 pounds per hour.  See b)(2)a. and b)(2)b.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-07(A)(1).
b.	OAC rule 3745-31-05(D)  Synthetic Minor Limitations to Avoid Nonattainment New Source Review	PE and PM <sub>10</sub> emissions shall not exceed 1.39 TPY, based upon a rolling, 12-month summation.  CO emissions shall not exceed 18.3 TPY, based upon a rolling, 12-month summation.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>VOC emissions shall not exceed 6.49 TPY, based upon a rolling, 12-month summation.</p> <p>NOx emissions shall not exceed 19.9 TPY, based upon a rolling, 12-month summation.</p> <p>See c)(1).</p>
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving each emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)(5)(a)  Stationary Small Internal Combustion Engine	The particulate emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580-6675)  [In accordance with the definitions in 63.6590 and 63.6675, the emissions units are existing spark ignition 4-stroke lean burn stationary RICE with a site rating more than 500 hp.]	Exempt from Subpart ZZZZ and Subpart A of 40 CFR Part 63 pursuant to 63.6590(b)(3)(ii).

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) determination pursuant to OAC rule 3745-31-05(A)(3) includes the use of natural gas, operating hour restrictions, and lean burn combustion control to reduce NOx emissions on this emissions unit. Sulfur SO<sub>2</sub> emissions were determined to be negligible under the BAT determination for this emissions unit due to the use of natural gas as an inherently clean fuel.
- b. The pound per mmBtu emission limitations for PE and PM<sub>10</sub> and the pound per hour emission limitations for CO, NOx, and VOC are based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.

c) Operational Restrictions

- (1) The maximum annual operating hours for each emissions unit shall not exceed 5,900 hours, based upon a rolling, 12-month summation of the operating hours. The emissions



units have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit.

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

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

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

- a. the operating hours for each month; and
- b. the rolling, 12-month summation of the operating hours.

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

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements in this permit are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-4484, issued on 3/25/1998: d)(1). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) **Reporting Requirements**

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month restriction on the hours of operation for each emissions unit.

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

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

(2) The permittee shall submit annual reports which specify the total NO<sub>x</sub> and CO emissions from each emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year. The permittee may satisfy this reporting requirement by including and identifying the NO<sub>x</sub> and CO emission data for this emissions unit in the annual Title V Fee Emission Report (FER) due by April 15 of each year.

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



- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-4484, issued on 3/25/1998: e)(1)-e)(2). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitations:

PE and PM<sub>10</sub> emissions shall not exceed 0.040 pound per mmBtu;

CO emissions shall not exceed 6.2 pounds per hour;

VOC emissions shall not exceed 2.2 pounds per hour; and

NOx emissions shall not exceed 6.75 pounds per hour.

Applicable Compliance Methods:

The emission limitations above are based upon the emissions unit's potential to emit and vendor-supplied emission factors provided with the application for PTI 14-4484, submitted October 24, 1997.

If required, compliance with these emission limitations shall be determined through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and the pollutant-specific Methods 5, 7, 10 and 25. Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

b. Emission Limitations:

PE and PM<sub>10</sub> emissions shall not exceed 1.39 TPY, based upon a rolling, 12-month summation.

CO emissions shall not exceed 18.3 TPY, based upon a rolling, 12-month summation.

VOC emissions shall not exceed 6.49 TPY, based upon a rolling, 12-month summation.

NOx emissions shall not exceed 19.9 TPY, based upon a rolling, 12-month summation.



Applicable Compliance Method:

The above emission limitations are based upon the operational restriction in c)(1) and the potential to emit, in lb/mmBtu or lb/hour, for each pollutant. Compliance with the 12-month rolling emission limitations shall be assumed as long as compliance with the annual hours of operation listed in c)(1) is not exceeded.

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

c. Emission Limitation:

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

Applicable Compliance Method:

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

No visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

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

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-4484, issued on 3/25/1998: (f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.