



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

9/20/2013

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

RE: PROPOSED AIR POLLUTION TITLE V PERMIT  
Facility Name: Columbus Southerly Wastewater Treatment Plant  
Facility ID: 0125040420  
Permit Type: Minor Permit Modification  
Permit Number: P0114500

Dear Ms. Damico:

A proposed OAC Chapter 3745-77 Title V permit for the referenced facility has been issued for review by U.S. EPA. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. If U.S. EPA does not object to this proposed permit, the permit will be processed for issuance as a final action not less than 45 days from the date of this letter. Please contact me at (614) 644-3631 by the end of the 45 day review period if you wish to object to the proposed permit.

Sincerely,

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

Cc: Ohio EPA DAPC, Central District Office





**PROPOSED**

**Division of Air Pollution Control  
Title V Permit**

for

**Columbus Southerly Wastewater Treatment Plant**

Facility ID:	0125040420
Permit Number:	P0114500
Permit Type:	Minor Permit Modification
Issued:	9/20/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





**Division of Air Pollution Control**  
**Title V Permit**  
for  
Columbus Southerly Wastewater Treatment Plant

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**Proposed Title V Permit**  
Columbus Southerly Wastewater Treatment Plant  
**Permit Number:** P0114500  
**Facility ID:** 0125040420  
**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0125040420  
Facility Description: Sewerage systems  
Application Number(s): A0047533, A0048286  
Permit Number: P0114500  
Permit Description: Minor permit modification to update Title V to reflect newly permitted digester gas boilers and derating of the sewage sludge incinerators.  
Permit Type: Minor Permit Modification  
Issue Date: 9/20/2013  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Superseded Permit Number: P0105174

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

Columbus Southerly Wastewater Treatment Plant  
6977 South High Street  
Box 95C, Rt#3  
Lockbourne, OH 43137-9702

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

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

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 Ohio EPA DAPC, Central District Office. 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



**Proposed Title V Permit**  
Columbus Southerly Wastewater Treatment Plant  
**Permit Number:** P0114500  
**Facility ID:** 0125040420  
**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 Ohio EPA DAPC, Central District Office.

*(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 emission units at this facility must comply with all applicable State and Federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emission unit. The insignificant emissions units listed below are subject to one of 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:
  - a) B024 - McGraw Edison 125 KW Emergency Generator(PBR 07185) - Southerly WWTP
  - b) B051 – 475 HP Natural Gas Emergency Generator (PBR11021) – Southerly WWTP
  - c) F001 - Aeration with Biofiltration and Curing (PTI No. 01-12153) - Com- Til Facility
  - d) F002 - Paved roadways and Parking Areas (PTI No. 01-12153) - Com- Til Facility
  - e) F003 - Material Handling and Storage Piles(PTI No. 01-12153) - Com- Til Facility
  - f) F006 - Portable screening unit - 35 TPH (PBR 07766) - Com- Til Facility
  - g) F007 - Portable screening unit - 35 TPH(PBR 07767) - Com- Til Facility
  - h) F009 - Portable screening unit - 75 TPH (PBR 08690) - Com- Til Facility
  - i) G001 - Gasoline dispensing facility with Stage I controls (PBR 07184) - Southerly WWTP

Pursuant to 40 CFR Part 64, the permittee has submitted and Ohio EPA has approved a compliance assurance monitoring (CAM) plan for emissions units N003 and N004 located at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emission units.



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



**1. F008, Unpaved roads and parking**

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

Unpaved Roadways and Parking Areas

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)	7.4 tons/ year of fugitive particulate matter of 10 microns or less (PM10) 25.2 tons/year of fugitive particulate emissions (PE) No visible PE except for 3 minutes during any 60-minute period Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust (See b)(2)a. through b)(2)f.)
b.	OAC rule 3745-17-07(B)(5) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	See b)(2)a. through b)(2)f.

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the



permittee's application, the permittee has committed to treat the unpaved roadways and parking areas by application of chemical stabilization/dust suppressants and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- b. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for unpaved roadways and parking areas that are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- c. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- d. Any unpaved roadway or parking area that is subsequently paved, will require a General Permit for paved roadways and parking areas.
- e. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- f. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas in accordance with the following frequencies:

<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
all roads and parking areas	daily

- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.



Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

- (3) The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented; and
  - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(3)d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit deviation reports that identify any of the following occurrences:
- a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
- (2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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:
    - 7.4 tons/year of fugitive PM10
    - 25.2 tons/year of fugitive PE



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Applicable Compliance Method:

Compliance with fugitive PE and PM10 limitations shall be determined by using the emission factor equations in Section 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 12/03) for unpaved roadways. Should further updates in AP-42 occur, the most current equations for unpaved roads shall be used. These emission limits in the General Permit were based on a maximum of 120,000 vehicle miles traveled per year, and a 95% control efficiency for PE and PM10.

b. Emission Limitation:

No visible PE from unpaved roadways and parking areas except for a period of time not to exceed 3 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PE limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

- (1) None.



**2. F010, Paved Roads**

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

Paved Roadways and Parking Areas

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) (P0108256, issued 6/28/2011)	8.5 tons/year of fugitive particulate matter of 10 microns or less (PM10)  43.5 tons/year of fugitive particulate emissions (PE)  No visible PE except for one minute during any 60-minute period  Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust (See b)(2)a. through b)(2)f.)
b.	OAC rule 3745-17-07(B)(4) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	See b)(2)a. through b)(2)f.

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to treat the paved roadways and



parking areas by application of chemical stabilization/dust suppressants and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- b. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for paved roadways and parking areas that are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- c. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- d. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas in accordance with the following frequencies:

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
all roads and parking areas	daily

The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.



- (2) The permittee shall maintain records of the following information:
    - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
    - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
    - c. the dates the control measures were implemented; and
    - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.
  - (3) The information required in d)(2)d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.
- e) Reporting Requirements
- (1) The permittee shall submit deviation reports that identify any of the following occurrences:
    - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
    - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
  - (2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- 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:  
8.5 tons/year of fugitive PM10  
43.5 tons/year of fugitive PE  
Applicable Compliance Method:  
Compliance with fugitive PE and PM10 limitations shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant Emission Factors, AP 42, Fifth Edition, Volume 1 (revised 12/03) for paved roadways. Should further updates in AP-42 occur, the most current equations for



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paved roads shall be used. These emission limits in the General Permit were based on greater than 70,000 vehicle miles but less than or equal to 230,000 vehicle miles traveled per year, and a 95% control efficiency for PE and PM10.

b. Emission Limitation:

No visible PE from paved roadways and parking areas except for a period of time not to exceed one minute during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PE limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) None.



**3. Emissions Unit Group -Gas Digesters: B027,B028,B029,B030,B031,B032,B033,B034,B035,**

EU ID	Operations, Property and/or Equipment Description
B027	Acid Gas Digester number 1 controlled by a flare
B028	Acid Gas Digester number 2 controlled by a flare
B029	Acid Gas Digester number 3 controlled by a flare
B030	Gas Digester number 1 controlled by a flare
B031	Gas Digester number 2 controlled by a flare
B032	Gas Digester number 3 controlled by a flare
B033	Gas Digester number 4 controlled by a flare
B034	Gas Digester number 5 controlled by a flare
B035	Gas Digester number 6 controlled by a flare

- 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) See 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)	For emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035, emissions shall not exceed:  14.78 lbs/hr of carbon monoxide (CO)  7.20 lbs/hr of nitrogen oxide (NOx)  12.50 lbs/hr of sulfur dioxide (SO <sub>2</sub> )  1.71 lbs/hr of particulate emissions (PE)  0.38 lb/hr of volatile organic compounds (VOC)  See b)(1)c. below.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(D) and 3745-17-07(A).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D) (Synthetic Minor to avoid NSR)	51.74 tons CO per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035  25.20 tons NOx emissions per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035  43.75 tons SO <sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045  5.95 tons PE per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035  1.34 tons VOC emissions per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035  See c)(1), c)(2), d)(1), e)(1) and f)(1)f. – f)(1)j.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-11	See b)(2)a. below
e.	OAC rule 3745-18-06	See b)(2)b. below.

(2) Additional Terms and Conditions

- a. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, pursuant to OAC rule 3745-17-11(A)(2)(b)(i), Table I of OAC rule 3745-17-11 does not apply because the process weight rate cannot be ascertained "Process weight" is defined in OAC rule 3745-17-01(B)(14).



- b. The requirements of OAC rule 3745-18-06 do not apply to this emissions unit pursuant to OAC rule 3745-18-06(C).
  - c. The hourly allowable emission limitations for this emissions unit were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- c) Operational Restrictions
- (1) The combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045 shall not exceed  $700 \times (10^6 \text{scf})$  per rolling, 12-month period. **(Note that the digester gas usage for emission units B027, B028, B029, B030, B031, B032, B033, B034 and B035 corresponds to the gas flared)**
  - (2) The maximum rolling, 12-month digester gas production rate from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035 shall not exceed  $700 \times (10^6 \text{scf})$  per rolling, 12-month period, based upon the combined summation of the production rates.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain monthly records of the following information:
    - a. the digester gas production for each month, in scf;
    - b. the digester gas flared for each month, in scf;
    - c. CO, NO<sub>x</sub>, PE, and VOC emissions for emission units B027, B028, B029, B030, B031, B032, B033, B034 and B035 based on the quantity of digester gas flared each month;
    - d. SO<sub>2</sub> emissions for emission units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045 based on the combined digester gas usage recorded in d)(1)g.
    - e. the rolling, 12-month summation of the CO, NO<sub>x</sub>, SO<sub>2</sub>, PE, and VOC emissions recorded in d)(1)c. and d)(1)d.;
    - f. the digester gas production for each month for, in scf, B027, B028, B029, B030, B031, B032, B033, B034 and B035;
    - g. the rolling, 12-month summation of the digester gas production, in scf, for B027, B028, B029, B030, B031, B032, B033, B034 and B035;
    - h. the combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045; and



- i. the combined rolling 12-month digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045

The rolling, 12-month usage of digester gas is determined by adding the total usage of digester gas for the current month to the total usage of digester gas from the preceding 11 months. The rolling, 12-month digester gas production and the rolling, 12-month emission summations are determined similarly.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. all exceedances of the rolling, 12-month digester gas production;
  - b. all exceedances of the rolling, 12-month CO, NO<sub>x</sub>, SO<sub>2</sub>, PE, and VOC emissions limitations;
  - c. any exceedance of the rolling, 12-month digester gas usage limitation of 700 x (10<sup>6</sup>scf), combined, for emission units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045.

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

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  
14.78 lbs/hr of CO  
  
Applicable Compliance Method  
Compliance with the allowable mass emission rate for carbon monoxide may be determined by multiplying an emission factor of 147.84 lbs of carbon monoxide per million cubic feet of digester gas by the maximum hourly gas production of 100,000 standard cubic feet of digester gas per hour. This emission factor is provided by Varec, the manufacturer of the Westech EB244 enclosed burner and represents an engineering safety factor adjustment of 1.5.
  - b. Emission Limitation  
7.20 lbs/hr of NO<sub>x</sub>



Applicable Compliance Method

Compliance with the allowable mass emission rate for NO<sub>x</sub> may be determined by multiplying an emission factor of 72.0 lbs of NO<sub>x</sub> per million cubic feet of digester gas by the maximum hourly gas production of 100,000 standard cubic feet of digester gas per hour. This emission factor is provided by Varec, the manufacturer of the Westech EB244 Enclosed burner and represents an engineering safety factor adjustment of 1.5.

c. Emission Limitation

12.50 lbs/hr of SO<sub>2</sub>

Applicable Compliance Method

Compliance with the allowable mass emission rate for sulfur dioxide may be determined by multiplying an emission factor of 125 lbs of sulfur dioxide per million cubic feet of digester gas by the maximum hourly gas production of 100,000 standard cubic feet of digester gas per hour. The maximum hourly gas production includes all sour gas production from the acid-phase digesters and sweet gas production from the meso-phase digesters. The emission factor is based on a combined digester gas H<sub>2</sub>S content of 750 ppm and 100% stoichiometric conversion of H<sub>2</sub>S in the digester gas stream to SO<sub>2</sub>. The combined digester gas content of 750 ppm is based on operating data from the facility associated with worst-case flaring of both sweet and sour gas during the gas wasting operation.\*

(\*Gas wasting operation occurs when the sweet gas production exceeds consumption by downstream digester gas boilers and incinerators and excess sweet gas is flared along with all produced sour gas. During normal operation, digester gas composed primarily of sour gas (>750 ppm) is flared at a volumetric flow rate significantly lower than 100,000 scfh. Hourly SO<sub>2</sub> emission rates for normal operation are less than 12.5 lb/hr).

d. Emission Limitation

0.38 lb/hr VOC emissions

Applicable Compliance Method

Compliance with the allowable mass emission rate for VOC may be determined by multiplying an emission factor of 3.84 lbs of VOC per million cubic feet of digester gas by the maximum hourly gas production of 100,000 standard cubic feet of digester gas per hour. This emission factor is provided by Varec, the manufacturer of the Westech EB244 Enclosed burner and represents an engineering safety factor adjustment of 1.5.

e. Emission Limitation

1.71 lbs/hr PE



Applicable Compliance Method

Compliance with the allowable mass emission rate for particulate emissions may be determined by multiplying an emission factor of 17 lbs of particulate emissions per million cubic feet of digester gas by the maximum hourly gas production of 100,000 standard cubic feet of digester gas per hour. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 2.4, Table 2.4-5(11/98).

f. Emission Limitation

51.74 tons CO emissions per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035

Applicable Compliance Method

Compliance with the annual limitations shall be based upon the records maintained in section d)(1) and the emission calculation methodology referenced in f)(1)a.

g. Emission Limitation

1.34 tons VOC per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035

Applicable Compliance Method

Compliance with the annual limitations shall be based upon the records maintained in section d)(1) and the emission calculation methodology referenced in f)(1)d.

h. Emission Limitation

43.75 tons SO<sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045

Applicable Compliance Method

Compliance with the annual limitations shall be based upon the records maintained in section d)(1) and the emission calculation methodology referenced in f)(1)c. For digester gas flaring, an emission factor of 550 lbs of sulfur dioxide per million cubic feet of digester gas may be used during normal operation corresponding to flaring of digester gas composed primarily of sour gas.

i. Emission Limitation

25.20 tons NO<sub>x</sub> emissions per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035



Applicable Compliance Method

Compliance with the annual limitations shall be based upon the records maintained in section d)(1) and the emission calculation methodology referenced in f)(1)b.

j. Emission Limitation

5.95 tons PE per rolling, 12-month period from emissions units B027, B028, B029, B030, B031, B032, B033, B034 and B035

Applicable Compliance Method

Compliance with the annual limitations shall be based upon the records maintained in section d)(1) and the emission calculation methodology referenced in f)(1)e.

k. Emission Limitation

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

Applicable Compliance Method

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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 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.



**4. Emissions Unit Group -Headworks Boilers: B040,B041,B042,**

EU ID	Operations, Property and/or Equipment Description
B040	8.66 MMBtu/hr natural gas/digester gas boiler
B041	8.66 MMBtu/hr natural gas/digester gas boiler
B042	8.66 MMBtu/hr natural gas/digester gas 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) 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), as effective 11/30/01	Emissions from B040, B041 and B042, individually, shall not exceed:  1.21 pounds per hour and 5.31 tons per year carbon monoxide (CO) when burning digester gas  1.56 pounds per hour and 6.83 tons per year nitrogen oxide (NO <sub>x</sub> ) when burning natural gas  0.08 pound per hour and 0.35 tons per year volatile organic compounds (VOC) when burning digester gas  0.08 pound per hour and 0.36 tons per year particulate emissions (PE) when burning digester gas  1.80 pounds per hour and 7.90 tons per year sulfur dioxide (SO <sub>2</sub> ) when burning digester gas  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(D) (Synthetic minor to avoid PSD)	Emissions shall not exceed:  29.40 tons CO per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045  36.00 tons NO <sub>x</sub> per rolling, 12-month period when burning natural gas for emissions units B040, B041, B042, B043, B044 and B045  1.93 tons VOC per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045  2.01 tons PE per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045  43.75 tons SO <sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045  See c)(2), c)(3), d)(1), e)(1), and f)(1)h.
d.	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.
e.	OAC rule 3745-17-10(B)(1)	0.020 pound (PE) per million British thermal units (Btu) of actual heat input
f.	OAC rule 3745-18-06	Exempt from d), f), and g), as rated less than 10 MMBtu/hr

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (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 the Ohio Revised Code



(ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) 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 OAC rule 3745-31-05, then these emission limitations/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 CO, NO<sub>x</sub>, VOC, PE and SO<sub>2</sub> emissions from these air contaminant sources since the calculated annual emission rate for these pollutants is less than 10 tons/year individually. These emissions units are further restricted by a synthetic minor restriction on the usage of natural gas and digester gas to avoid PSD for NO<sub>x</sub> and SO<sub>2</sub>.

- c. The hourly allowable emission limitations for this emissions unit were established to reflect the hourly "worst case" potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- d. The maximum annual natural gas usage for these emissions units cannot exceed 75.86 (10<sup>6</sup>scf/yr), based upon their potential natural gas usage (these units are further restricted by a group synthetic minor limitation). To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table for emissions units B040, B041, and B042, individually:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Natural Gas Usage (10<sup>6</sup> scf)</u>
1	6.32
1-2	12.64
1-3	18.96
1-4	25.28
1-5	31.6
1-6	37.92
1-7	44.24
1-8	50.56
1-9	56.88
1-10	63.2
1-11	69.52
1-12	75.86

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual natural



gasusage limitation shall be based upon a rolling, 12-month summation of the natural gas usage figures.

- e. The maximum annual digester gas usage for these emissions units cannot exceed 126.44 (10<sup>6</sup>scf/yr), based upon their potential digester gas usage (these units are further restricted by a group synthetic minor limitation). To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the digester gas usage levels specified in the following table for emissions units B040, B041 and B042, individually:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Digester Gas Usage (10<sup>6</sup> scf)</u>
1	10.53
1-2	21.06
1-3	31.59
1-4	42.12
1-5	52.65
1-6	63.18
1-7	73.71
1-8	84.24
1-9	94.77
1-10	105.3
1-11	115.83
1-12	126.44

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

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or digester gas in these emissions units.
- (2) The combined natural gas usage for emissions units B040, B041, B042, B043, B044 and B045 shall not exceed 400 x (10<sup>6</sup>scf) per rolling, 12-month period.
- (3) The combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045 shall not exceed 700 x (10<sup>6</sup>scf) per rolling, 12-month period. (Note that the digester gas usage for emission units B027, B028, B029, B030, B031, B032, B033, B034 and B035 corresponds to the gas flared.)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
  - a. the combined natural gas usage for emissions units B040, B041, B042, B043, B044 and B045;



- b. the combined rolling 12-month natural gas usage for emissions units B040, B041, B042, B043, B044 and B045;
- c. the combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045;
- d. the combined digester gas usage for emissions units B040, B041, B042, B043, B044 and B045;
- e. the combined, rolling 12-month digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045; and
- f. the combined, rolling-12 month digester gas usage for emission units B040, B041, B042, B043, B044 and B045.

The rolling, 12-month usage of each fuel type is determined by adding the total usage of each fuel type for the current month to the total usage of each fuel type from the preceding 11 months.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. each period of time, (start date and time to end date and time), when the emissions unit burned a fuel other than natural gas and/or digester gas;
    - ii. any exceedance of the rolling, 12-month natural gas limitation of 400 x (10<sup>6</sup>scf), combined, for emissions units B040, B041, B042, B043, B044 and B045; and
    - iii. any exceedance of the rolling, 12-month digester gas limitation of 700 x (10<sup>6</sup>scf), combined, for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and



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

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

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

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 shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

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

b. Emission Limitation:

0.020 pound PE per MMBtu of actual heat input

Applicable Compliance Method:

If required, compliance with this PE limitation shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

c. Emission Limitation:

1.21 pounds per hour and 5.31 tons per year carbon monoxide

Applicable Compliance Method:

Compliance with the short term (hourly) CO limitation is demonstrated through the use of emissions factors published in AP-42, Volume 1, Fifth Edition, Section 1.4 "Natural Gas Combustion" (84 lbs/MMcu.ft.).

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).



If required, compliance with these limitations shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

d. Emission Limitation:

1.56 pounds per hour and 6.83 tons per year nitrogen oxide

Applicable Compliance Method:

Compliance with the short term (hourly) NO<sub>x</sub> limitation is demonstrated through the use of emissions factors derived from the March/April 2009 stack test conducted at the facility (180 lbs/MMcu.ft.).

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with these limitations shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7e.

e. Emission Limitation:

0.08 pound per hour and 0.35 ton per year volatile organic compounds

Applicable Compliance Method:

Compliance with the short term (hourly) VOC limitation is demonstrated through the use of emissions factors published in AP-42, Volume 1, Fifth Edition, Section 1.4 "Natural Gas Combustion" (5.50 lbs/MMcu.ft.).

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with the hourly VOC emission limitation shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Methods 18, 25 or 25A.

f. Emission Limitation:

0.08 pound per hour and 0.36 ton per year particulate emissions

Applicable Compliance Method:

Compliance with the short term (hourly) PE limitation is demonstrated through the use of emissions factors published in AP-42, Volume 1, Fifth Edition, Table 2.4-5, Section 2.4 "Municipal Solid Waste Landfills" (0.7 methane/digester gas ration, 8.2 lbs PE/MMcu.ft. \* 0.7 methane/digester gas = 5.74 lbs PE/MMcu.ft.).



Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with this PE limitation shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

g. Emission Limitation:

1.80 pounds per hour and 7.90 tons per year sulfur dioxide

Applicable Compliance Method:

Compliance with the short term (hourly) SO<sub>2</sub> limitation is demonstrated through the use of an emissions factor derived from use a stoichiometric conversion contained in permit application A0047626 using The Ideal Gas Law (PV = nRT) yielding a factor of 125 lbs SO<sub>2</sub>/MMcu.ft.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with these limitations shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

h. Emission Limitation:

29.40 tons CO per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045

36.00 tons NO<sub>x</sub> per rolling, 12-month period when burning natural gas for emissions units B040, B041, B042, B043, B044 and B045

1.93 tons VOC per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045

2.01 tons PE per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045

43.75 tons SO<sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045

Applicable Compliance Method:

Compliance with the rolling, 12-month limitations is determined by multiplying the actual natural gas/digester gas usage required in d)(1) by the following emission factors:



**Proposed Title V Permit**  
Columbus Southerly Wastewater Treatment Plant  
**Permit Number:** P0114500  
**Facility ID:** 0125040420  
**Effective Date:** To be entered upon final issuance

<u>Pollutant</u>	<u>Emission Factor</u>
CO	84lbs/MMcu.ft (digester gas)
NO <sub>x</sub>	180lbs/MMcu.ft (natural gas)
VOC	5.50lbs/MMcu.ft (digester gas)
PE	5.74lbs/MMcu.ft (digester gas)
SO <sub>2</sub>	125lbs/MMcu.ft (digester gas-B027 through B035 flaring to waste sweet gas (See, .3.f)(1)c.) and B036 through B045)
SO <sub>2</sub>	550lbs/MMcu.ft (digester gas-B027 through B035 flaring of sour gas. (See C.3.f)(1)h.)

g) Miscellaneous Requirements

- (1) None.



**5. Emissions Unit Group -Incinerators: N003,N004,**

EU ID	Operations, Property and/or Equipment Description
N003	multiple hearth incinerator
N004	multiple hearth incinerator

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

- (1) b)(1)h., b)(2)g., d)(20), d)(21), d)(22), d)(23), e)(5)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions shall not exceed:  1.3 pounds of particulate matter (PM) per ton of dry sludge incinerated  2.92 pounds per hour and 12.78 tons per year of particulate emissions (PE)  7.43 pounds per hour and 32.54 tons per year sulfur dioxide (SO <sub>2</sub> )  17.33 pounds per hour and 75.90 tons per year nitrogen oxide (NO <sub>x</sub> )  3.59 pounds per hour and 15.73 tons per year volatile organic compounds (VOC)  15.04 pounds per hour and 65.87 tons per year carbon monoxide (CO)  The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart O, OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), OAC rule 3745-17-09(B), and OAC rule 3745-18-06(C).
b.	OAC rule 3745-17-07(A)(1)	See b)(2)a.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-09(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
d.	OAC rule 3745-17-09(C)	Incinerators, including all associated equipment and grounds, shall be designed, operated, and maintained so as to prevent the emission of objectionable odors.
e.	OAC rule 3745-18-06(C)	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 60, Subpart O, New Source Performance Standards	<p>Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average. This requirement is equivalent to OAC rule 3745-17-07(A)(1).</p> <p>The particulate matter emission limitation specified by this rule is equivalent to the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>See b(2)e and b(2)f.</p>
g.	40 CFR 61, Subpart E, National Emission Standards for Hazardous Air Pollutants (NESHAP)	Mercury emissions from emission units N003 and N004 combined shall not exceed 7.1 pounds (3200 grams) of mercury per 24-hour period.
h.	ORC 3704.03(F)	See b)(2)g, d)(20), (21),(22), (23), and e)(5).
i.	40 CFR Part 64 Compliance Assurance Monitoring (CAM)	See d)(6), d)(7), d)(8), d)(9), d)(10), d)(24), e)(2), e)(4), e)(6), f)(1)b., f)(2)

(2) Additional Terms and Conditions

- a. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except:
  - i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any 60 minutes; but
  - ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and



- iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.
  
- b. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
  
- c. The application and enforcement of the provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.
  
- d. The emissions units are not subject to the beryllium NESHAP (40 CFR Part 61, Subpart C) because the sewage sludge processed in this emissions unit does not contain any "beryllium containing waste." As defined in 40 CFR 61.31(g), "Beryllium containing waste" means material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to this subpart (40 CFR Part 61, Subpart C). See e)(3).
  
- e. 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.
  
- f. The permittee shall maintain a written quality assurance/quality control plan for the continuous O<sub>2</sub> monitoring system, designed to ensure continuous valid and representative readings of 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 O<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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

- g. In order to demonstrate compliance with the "Toxic Air Contaminant Statute", the Director has established, per ORC 3704.03(F)(4)(c), a limit for sulfuric acid, which shall not exceed 14.64 pound(s) per day. This daily allowable emissions rate was calculated by multiplying the approved daily operating schedule submitted in the permit application, by the emission rate modeled (to determine the ground level concentration). In addition, the Director has established, per ORC 3704.03(F)(4)(c), a limit for mercury, which shall not exceed 410 grams per day. This daily allowable emissions rate was established at 80% of the Maximum Acceptable Ground Level Concentration for this compound.



- h. For the purposes of sections b)(2)c., d. and e., normal operation is defined as any period of time that sludge is in the incinerator except: a period of one hour after sludge has been introduced upon start-up, and a period of three hours after sludge feed has been discontinued upon shutdown. Also, normal operation does not include periods of warm-up, cool-down or warm standby when the incinerator is burning only auxiliary fuel.

c) Operational Restrictions

- (1) The incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
- (2) The emissions from each emissions unit shall be vented to the Venturi and Impingement wet scrubbers at all times the emissions unit is in normal operation.
- (3) No changes in the operation shall be made, which would potentially increase mercury emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to Ohio EPA, Central District Office.
- (4) Municipal solid waste shall not be fired in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 P0113695, issued on April 15, 2013:d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- (2) The permittee shall perform daily checks, when the emissions units are in normal operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the visible particulate emissions are representative of normal operations;
  - c. if the visible particulate emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible particulate emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible particulate emissions.



If visible particulate emissions are present, a visible particulate emission incident has occurred. The observer does not have to document the exact start and end times for the visible particulate emission incident under item d. above or continue the daily check until the incident has ended. The observer may indicate that the visible particulate emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible particulate emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible particulate emissions.

- (3) The permittee shall install, calibrate, maintain, and operate a flow measuring device which can be used to determine the mass of sludge charged to each incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of plus or minus 5 percent over its operating range. The flow measuring device shall be operated continuously and data recorded during all periods of operation of the incinerator.
- (4) The permittee shall record the daily total tons of dry sludge fed to each of the emissions units. This information shall be maintained for a period of not less than five (5) years.
- (5) The permittee shall provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained.
- (6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable pressure drop across the scrubber, that must be maintained in order to demonstrate compliance, shall not be less than 26.08 inches of water (column) for N003 and 28.32 inches of water (column) for N004.

These limit(s) are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted limit for the pressure drop based upon information obtained during future emission tests that demonstrate compliance with the allowable particulate emission rate for this/these emission unit(s).

- (7) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubbers (in water column inches) during normal operation of this/these emissions unit(s). The permittee shall record and maintain a continuous record of the pressure drop of the gas flow through the scrubbers. 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. The acceptable range or limit for the pressure drop across the scrubbers shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for this parameter is established to demonstrate compliance.



Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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; and
- d. 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- e. a description of the corrective action;
- f. the date the corrective action was completed;
- g. the date and time the deviation ended;
- h. the total period of time (in minutes) during which there was a deviation; and
- i. the pressure drop and flow rate readings immediately after the corrective action was implemented.

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.

These range(s) and/or limit(s) for the pressure drop are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted range or limit for the pressure drop based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). 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.

- (8) The permittee shall collect and record the following information and maintain in its files for a period of not less than five (5) years.



- a. a continuous record of the pressure drop of the gas flow through the scrubbers;
  - b. records of the downtimes for the monitoring equipment when the emissions units are in normal operation;
  - c. records of monitoring equipment calibration checks; and
  - d. records of a pressure drop reduction of:
    - i. more than 30 percent from the average pressure drop recorded during the most recent stack test which demonstrated the emissions units to be in compliance, or
    - ii. more than the value calculated using the equation in 40 CFR 60.155(a)(1)(ii) from the average pressure drop recorded during the most recent stack test which resulted in an average particulate matter emission rate of greater than 0.75 lb/ton (0.38 kg/Mg) dry sludge input.
- (9) The permittee shall properly install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas while the emissions units are in normal operation. The oxygen monitor shall be located upstream of any source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of plus or minus 5 percent over its operating range and shall be calibrated according to the methods prescribed by the manufacturer at least once each 24-hour operating period.

The permittee shall collect and record the following information and maintain in its files for a period of not less than five (5) years:

The permittee shall maintain records of data obtained by the continuous O<sub>2</sub> monitoring system including, but not limited to:

- a. percent O<sub>2</sub> on an instantaneous (one-minute) basis;
- 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 normal operation of the emissions unit, and hours of operation of the continuous O<sub>2</sub> monitoring system;
- f. the date, time, and hours of normal operation of the emissions unit without the continuous O<sub>2</sub> monitoring system;
- g. the date, time, and hours of normal operation of the emissions unit during any malfunction of the continuous O<sub>2</sub> monitoring system;



- h. the reason (if known) and the corrective actions taken (if any) for each such event in (f) and (g), and
  - i. records of the average oxygen content in the incinerator exhaust gas for each normal operational period of one-hour duration or more that the oxygen content of the incinerator exhaust gas exceeds the average oxygen content measured during the most recent performance test which demonstrated the emissions unit to be in compliance by more than three percent.
- (10) 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 (Ohio EPA, Central District Office) 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.
- (11) The permittee shall install, calibrate, maintain and operate continuous temperature measuring devices to measure and record temperatures in every hearth of the incinerators. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of plus or minus 5 percent over its operating range. The temperature monitoring devices shall be operated continuously and data recorded during all periods of operation in the incinerators.
- (12) The permittee shall collect and record the measured temperature of the incinerators and maintain this information for a period of not less than five (5) years.
- (13) The permittee shall install calibrate, maintain and operate continuous device to measure and record fuel flow to the incinerators. The flow measuring device shall be certified by the manufacturer to have an accuracy of plus or minus 5 percent over its operating range. The fuel flow monitoring device shall be operated continuously and data recorded during all periods of operation in the incinerators.
- (14) The permittee shall collect and record the fuel flow to the incinerators and maintain this information for a period of not less than five (5) years.
- (15) The permittee shall collect and analyze a grab sample of the sludge fed to the incinerator once per day. The dry sludge content and the volatile solids content of the sample shall be determined in accordance with the method specified under 60.154(b)(5) as referenced in 40 CFR 60.153(b)(5).
- (16) The permittee shall collect and record the total solids and volatile solids content of the sludge charged to the incinerator and maintain this information for a period of not less than five (5) years.



- (17) In the event that the particulate matter emission rate measured during the most recent performance test required under 60.154(d) is less than or equal to 0.75 lb/ton (0.38 g/kg) of dry sludge input, then the following requirements shall not be required:
- a. the continuous operation of the monitoring devices and data recorders in 60.153(a)(1), (b)(3), and (b)(4) which are listed in d)(3), d)(11), and d)(13) above,
  - b. daily sampling and analysis of sludge feed in 60.153(b)(5) which is listed in d)(15) above, and
  - c. record keeping requirements contained in d)(4), d)(12), and d)(14) above.
- (18) If mercury emissions exceed 3.5 lbs per 24-hour period from emission units N003 and N004, combined, the permittee shall monitor mercury emissions at intervals of at least once per year by use of Method 105 of Appendix B or the procedures specified in 40 CFR Part 61.53(d)(2) and (4). The results of monitoring shall be reported and retained according to 40 CFR Part 61.53(d)(5) and (6) or 40 CFR Part 61.54(f) and (g).
- (19) Whenever the monitored value for any parameter, such as sludge input rate, pressure drop of the gas flow through the wet scrubbing device, oxygen content of the incinerator exhaust gas, or hearth temperatures, deviates from the range(s) or minimum limit(s) 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; and
  - d. 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 control equipment parameters, including pressure drop of the gas flow through the wet scrubbing device, within the acceptable range(s), or at or above the minimum limit(s) 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:

- e. a description of the corrective action;
- f. the date the corrective action was completed;
- g. the date and time the deviation ended;
- h. the total period of time (in minutes) during which there was a deviation; and
- i. the pressure drop readings immediately after the corrective action was implemented.



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.

These range(s) and/or limit(s) are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted range or limit for the pressure drop based upon information obtained during future emission tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s).

- (20) The PTI application for this/these emissions unit(s), N003 and N004, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
    - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
  - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
  - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):



$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants or “worst case” toxic contaminant(s):
- i. Toxic Contaminant: sulfuric acid  
TLV (ug/m3): 200  
Maximum Hourly Emission Rate (lbs/hr): 0.61  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4.37  
MAGLC (ug/m3): 4.8
  - ii. Toxic Contaminant: mercury  
TLV (ug/m3): 10  
Maximum Hourly Emission Rate (lbs/hr): 0.37  
Maximum Hourly Emission Rate (g/day): 410  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.1905  
MAGLC (ug/m3): 0.2381
  - iii. Toxic Contaminant: aluminum  
TLV (ug/m3): 10000  
Maximum Hourly Emission Rate (lbs/hr): 1.08  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7.75  
MAGLC (ug/m3): 238
  - iv. Toxic Contaminant: benzene  
TLV (ug/m3): 1597  
Maximum Hourly Emission Rate (lbs/hr): 0.25  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.77  
MAGLC (ug/m3): 38

The permittee, having demonstrated that emissions of sulfuric acid, from emissions unit(s) N003 and N004, is estimated to be equal or greater than eighty per cent, but less than 100 percent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

The permittee, having demonstrated that emissions of mercury, from emissions unit(s) N003 and N004, is calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

The permittee, has demonstrated that emissions of aluminum and benzene, from emissions units N003 and N004, are calculated to be less than eighty percent of the



maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (21) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute", ORC 3704.03(F), 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 a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (22) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute":
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F),



initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (23) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- (24) The CAM plan for this emissions unit has been developed for PE. The CAM performance indicators for controlling these emission units are scrubber pressure drop and exhaust gas oxygen concentration, which are based upon the results of site-specific PE testing, and scrubber parametric data collected during the testing. When the pressure drop of the scrubber or the exhaust gas oxygen is operating outside of the indicator ranges, corrective action (including, but not limited to < an evaluation of the emission units and the control devices) will be required.

Upon detecting an excursion of any of the PE indicator ranges listed above, the owner or operator shall restore operation of the emission unit and/or its control equipment to its 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 necessary corrective actions to restore operation within the indicator range 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, or any necessary follow-up actions to return operation to within the indicator range.

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 54.8.

e) Reporting Requirements

- (1) The permittee shall identify the following information in the quarterly deviation report in accordance with the monitoring requirements for visible emissions contained in the monitoring and recordkeeping requirements in d)(2):
  - a. all days during which any visible particulate emissions were observed from the stacks serving these emissions units; and
  - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.



- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following information concerning the operation of the wet scrubber during normal operation of the emissions unit(s):
- a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubbers was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in normal operation and the process emissions were not vented to the scrubbers;
  - c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;
  - d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

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.

- (3) Except as provided below, the permittee shall submit an annual statement as part of its annual compliance certification report that indicates that sewage sludge processed in this emissions unit does not contain any "beryllium containing waste," as that term is defined in the Beryllium NESHAP, in 40 CFR Part 61, Subpart C. As the basis for this statement, the permittee shall annually review all of its permitted industrial dischargers to determine if any of the industrial dischargers discharge beryllium containing waste to the Columbus sanitary sewers.

If the permittee determines that it will not submit annual statement that its sewage sludge does not contain beryllium containing waste, the permittee shall so notify the Director (Ohio EPA, Central District Office) and, thereafter, the permittee shall be subject to and shall comply with the requirements of 40 CFR Part 61, Subpart C, including the emission limitation of 10 grams of beryllium in a twenty-four hour period. In addition, whenever particulate emission testing is performed for either incinerator, the permittee also shall demonstrate compliance with the emission limitation for beryllium by performing emission testing in accordance with Method 103 or 104 of 40 CFR Part 60, Appendix B.

- (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 Ohio EPA, Central District Office, documenting all instances of continuous O<sub>2</sub> monitoring system downtime and malfunction while the emissions unit was in normal operation.
- 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 in normal operation;
  - v. the total operating time of the continuous O<sub>2</sub> monitoring system while the emissions unit was in normal 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 normal 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 normal operation; and
  - xi. the reason (if known) and the corrective actions taken (if any) for each event in b.ix.andb.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.

- (5) The permittee shall submit quarterly deviation reports, to the Ohio EPA Central District Office, documenting any exceedance of the daily limitation on toxic air emissions or any



deviation from a restriction on the process or hours of operation, as established by the Director in order to maintain any toxic air contaminant below its MAGLC. The permittee shall also report any changes made, during the calendar quarter, to a parameter or value entered into the dispersion model that demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F). These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

- (6) The permittee shall submit semi-annual reports, to the appropriate Ohio EPA Central District Office, of the following:
  - a. A record of average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than, by a percentage specified below, the average scrubber pressure drop measured during the most recent performance test. The percent reduction in scrubber pressure drop for which a report is required shall be determined as follows:
    - i. For incinerators that achieved an average particulate matter emission rate of 0.75 lb/ton (0.38 kg/Mg) dry sludge input or less during the most recent performance test, a scrubber pressure drop reduction of more than 30 percent from the average scrubber pressure drop recorded during the most recent performance test shall be reported.
    - ii. For incinerators that achieved an average particulate matter emission rate of greater than 0.75 lb/ton (0.38 kg/Mg) dry sludge input during the most recent performance test, a percent reduction in pressure drop greater than that calculated according to the equation in 40 CFR 60.155(a)(ii) shall be reported.
  - b. A record of average oxygen content in the incinerator exhaust gas for each period of one-hour duration or more that the oxygen content of the incinerator exhaust gas exceeds the average oxygen content measured during the most recent performance test by more than three percent.
- 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/the stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.



Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using methods and procedures specified in U.S. EPA Method 9 and as specified in term f)(3).

b. Emission Limitation:

1.3 pounds of particulate emissions per ton of dry sewage sludge, 2.92 pounds of PE per hour and 12.78 tons PE per year from each emission unit, N003 and N004

Applicable Compliance Method(s):

Compliance with the long term particulate emissions limitation shall be demonstrated by using the following equation and 40 CFR Part 60, Subpart O emission factor:  $1.3 \text{ lbs PE/ton} * 2.24 \text{ dry tons/hr} * 8760 \text{ hrs/yr} / 2,000 \text{ lbs/ton}$

Compliance with the short term PE limitation shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 5, 201 and 202 and as specified in term f)(3). The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

c. Emission Limitation:

7.43 pounds per hour and 32.54 tons per year sulfur dioxide (SO<sub>2</sub>) from each emission unit N003 and N004

Applicable Compliance Method(s):

Compliance with the long term SO<sub>2</sub> emissions limitation shall be demonstrated by using the following equation and 2012 emission factor:  $3.31 \text{ lbs SO}_2\text{/ton} * 2.24 \text{ dry tons/hr} * 8760 \text{ hrs/yr} / 2,000 \text{ lbs/ton}$ .

Compliance with the short term SO<sub>2</sub> limitation shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6, and as specified in term f)(3). The results of the emissions tests shall be reported in terms of pounds per ton and pounds per hour.

d. Emission Limitation:

3.59 pounds volatile organic compound (VOC) emissions per hour and 15.73 tons per year from each emission unit N003 and N004

Applicable Compliance Method(s):

Compliance with the long term VOC emissions limitation shall be demonstrated by using the following equation and AP-42, Section 2.2 emission factor:  $1.6 \text{ lbs VOC/ton} * 2.24 \text{ dry tons/hr} * 8760 \text{ hrs/yr} / 2,000 \text{ lbs/ton}$ .



Compliance with the short term VOC limitation shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 25 or 25a and as specified in term f)(3). The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

e. Emission Limitation:

17.33 pounds nitrogen oxide (NO<sub>x</sub>) emissions per hour and 75.90 tons per year from each emission unit, N003 and N004

Applicable Compliance Method(s):

Compliance with the long term NO<sub>x</sub> emissions limitation shall be demonstrated by using the following equation and 2012 stack testing emission factor: 7.72 lbs NO<sub>x</sub>/ton \* 2.24 dry tons/hr \* 8760 hrs/yr / 2,000 lbs/ton.

Compliance with the short term NO<sub>x</sub> limitation shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 and as specified in term f)(3). The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

f. Emission Limitation:

15.04 pounds carbon monoxide (CO) emissions per hour and 65.87 tons per year from each emission unit, N003 and N004

Applicable Compliance Method(s):

Compliance with the long term CO emissions limitation shall be demonstrated by using the following equation and AP-42, Section 2.2 emission factor: 6.7 lbs CO/ton \* 2.24 dry tons/hr \* 8760 hrs/yr / 2,000 lbs/ton.

Compliance with the short term CO limitation shall be demonstrated through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10 and as specified in term f)(3). The results of the emissions test shall be reported in terms of pounds per ton and pounds per hour.

g. Emission Limitation:

Mercury emissions from emissions units N003 and N004 combined shall not exceed 7.1 pounds of mercury per 24 hour period and 1.29 tons per year.

Applicable Compliance Method(s):

Compliance with the 24 hour mercury limitation shall be demonstrated by the emissions testing or sludge sampling as described in f)(6)a. and f)(6)b. below.

The tons per year limitation can be calculated by multiplying the emission factor derived from the most recent stack or sludge test that demonstrated compliance in terms of pounds of mercury per ton dry sludge times the actual tons dry sludge per year incinerated and divided by 2000 pounds per ton.



- (2) Ongoing compliance with the O<sub>2</sub> monitoring requirements 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 demonstration of compliance with the quality assurance/quality control plan, which shall meet all of the testing and recertification requirements of 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendices B & F]

- (3) The permittee shall conduct emissions testing for emissions units N003 and N004 in accordance with the following requirements:

- a. The emissions testing shall be conducted within six (6) months of permit expiration.
- b. The emissions testing shall be conducted to demonstrate compliance with the PE, SO<sub>2</sub>, VOC, NO<sub>x</sub>, CO and visible opacity emission limitations.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Particulate: Methods 1-4, 5, 201 and 202 of 40 CFR Part 60, Appendix A;

SO<sub>2</sub>: Methods 1-4 and 6 of 40 CFR Part 60, Appendix A;

VOC: Methods 1-4 and 25 or 25a of 40 CFR Part 60, Appendix A;

NO<sub>x</sub>: Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;

CO: Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and

Visible emissions: Method 9 of 40 CFR Part 60, Appendix A.

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

- d. The test(s) shall be conducted under representative sewage sludge incinerator conditions at or near its highest expected sewage sludge feed rate within the design capacity of the sewage sludge incinerator, unless otherwise specified or approved by Ohio EPA, Central District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office. 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 Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).
- f. Personnel from Ohio EPA, Central District Office 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 Ohio EPA, Central District Office within 60 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 Ohio EPA, Central District Office.

[Authority for term: OAC rule 3745-31-05]

- (4) As specified in 40 CFR 60.8, each performance test shall consist of at least three separate runs under the same operating conditions.

[Authority for term: 40 CFR 60.8]

- (5) All continuous monitoring systems and monitoring devices shall be operational, and calibrated prior to conducting performance test.

[Authority for term: 40 CFR 60]

- (6) The permittee shall conduct, or have conducted, emissions testing for emissions units N003 and N004 for mercury to comply with 40 CFR 61, Subpart E by either performing an emissions test or by performing sludge sampling:

- a. An emissions test using Method 101A in Appendix B of 40 CFR 61;
  - i. Ohio EPA, Central District Office shall be notified at least 30 days prior to an emissions test.
  - ii. Samples shall be taken over such a period or periods as are necessary to determine accurately the maximum emissions which will occur in a 24-hour period.
  - iii. Samples shall be analyzed and emissions determined within 30 days after the emissions unit performance stack test. All determinations shall be reported to Ohio EPA, Central District Office by a registered letter dispatched before the close of business day following such determination. Records of emissions test results and other data needed to determine total emissions shall be retained at the source and shall be made available for inspection for a minimum of five years.

[Authority for term: 40 CFR 61.53(d)]

or;

- b. A sludge sampling test using Method 105 of Appendix B and paragraph 61.54 of 40 CFR 61.



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- i. Ohio EPA, Central District Office shall be notified at least 30 days prior to the sludge test.
  - ii. Sludge shall be sampled, the sludge charging rate shall be determined and the sludge analysis shall be performed according to 40 CFR 61.54(c).
  - iii. Mercury emissions shall be determined according to 40 CFR 61.54(d).
  - iv. All sludge samples shall be analyzed for mercury content within 30 days after the sludge sample is collected.
  - v. Records of sludge sampling, sludge charging rate and other data needed to determine mercury content of the wastewater treatment plant sludge shall be retained at the source and shall be made available for inspection of a minimum of five years.
- g) Miscellaneous Requirements
- (1) None.



**6. Emissions Unit Group -Service Building Boilers: B043,B044,B045,**

EU ID	Operations, Property and/or Equipment Description
B043	9.4 MMBtu/hr natural gas/digester gas boiler
B044	9.4 MMBtu/hr natural gas/digester gas boiler
B045	9.4 MMBtu/hr natural gas/digester gas 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) 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), as effective 11/30/01	Emissions from B043, B044 and B045, individually, shall not exceed:  1.32 pounds per hour and 5.77 tons per year carbon monoxide (CO) when burning digester gas  1.69 pounds per hour and 7.42 tons per year nitrogen oxide (NO <sub>x</sub> ) when burning natural gas  0.09 pound per hour and 0.38 tons per year volatile organic compounds (VOC) when burning digester gas  0.09 pound per hour and 0.39 tons per year particulate emissions (PE) when burning digester gas  1.96 pounds per hour and 8.59 tons per year sulfur dioxide (SO <sub>2</sub> ) when burning digester gas  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(D) (Synthetic minor to avoid PSD)	<p>Emissions shall not exceed:</p> <p>29.40 tons CO per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045</p> <p>36.00 tons NO<sub>x</sub> per rolling, 12-month period when burning natural gas for emissions units B040, B041, B042, B043, B044 and B045</p> <p>1.93 tons VOC per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045</p> <p>2.01 tons PE per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045</p> <p>43.75 tons SO<sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045</p> <p>See c)(2), c)(3), d)(1), e)(1), and f)(1)h.</p>
d.	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.
e.	OAC rule 3745-17-10(B)(1)	0.020 pound (PE) per million British thermal units (Btu) of actual heat input
f.	OAC rule 3745-18-06	Exempt from d), f) and g), as rated less than 10 MMBtu/hr

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (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 the Ohio Revised Code



(ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) 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 OAC rule 3745-31-05, then these emission limitations/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 of OAC rule 3745-31-05(A)(3) do not apply to the CO, NO<sub>x</sub>, VOC, PE and SO<sub>2</sub> emissions from these air contaminant sources since the calculated annual emission rate for these pollutants is less than 10 tons/year individually. These emission units are further restricted by a synthetic minor restriction on the usage of natural gas and digester gas to avoid PSD for NO<sub>x</sub> and SO<sub>2</sub>.

- c. The hourly allowable emission limitations for this emissions unit were established to reflect the hourly "worst case" potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- d. The maximum annual natural gas usage for these emissions units cannot exceed 82.48 (10<sup>6</sup>scf/yr), based upon their potential natural gas usage (these units are further restricted by a group synthetic minor limitation). To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table for emissions units B043, B044, and B045, individually:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Natural Gas Usage (10<sup>6</sup> scf)</u>
1	6.87
1-2	13.74
1-3	20.61
1-4	27.48
1-5	34.35
1-6	41.22
1-7	48.09
1-8	54.96
1-9	61.83
1-10	68.7
1-11	75.57
1-12	82.48

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual natural



gasusage limitation shall be based upon a rolling, 12-month summation of the natural gas usage figures.

- e. The maximum annual digester gas usage for these emissions units cannot exceed 137.46 (10<sup>6</sup>scf/yr), based upon their potential digester gas usage (these units are further restricted by a group synthetic minor limitation). To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the digester gas usage levels specified in the following table for emissions units B043, B044 and B045, individually:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Digester Gas Usage (10<sup>6</sup> scf)</u>
1	11.45
1-2	22.9
1-3	34.35
1-4	45.8
1-5	57.25
1-6	68.87
1-7	80.15
1-8	91.6
1-9	103.05
1-10	114.5
1-11	125.95
1-12	137.46

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

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or digester gas in these emissions units.
- (2) The combined natural gas usage for emissions units B040, B041, B042, B043, B044 and B045 shall not exceed 400 x (10<sup>6</sup>scf) per rolling, 12-month period.
- (3) The combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045 shall not exceed 700 x (10<sup>6</sup>scf) per rolling, 12-month period. (Note that the digester gas usage for emission units B027, B028, B029, B030, B031, B032, B033, B034 and B035 corresponds to the gas flared.)

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
  - a. the combined natural gas usage for emissions units B040, B041, B042, B043, B044 and B045;



- b. the combined rolling 12-month natural gas usage for emissions units B040, B041, B042, B043, B044 and B045;
- c. the combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045;
- d. the combined digester gas usage for emission units B040, B041, B042, B043, B044 and B045;
- e. the combined rolling 12-month digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045; and
- f. the combined, rolling 12-month digester gas usage for emission units B040, B041, B042, B043, B044 and B045.

The rolling, 12-month usage of each fuel type is determined by adding the total usage of each fuel type for the current month to the total usage of each fuel type from the preceding 11 months.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. each period of time, (start date and time to end date and time), when the emissions unit burned a fuel other than natural gas and/or digester gas;
    - ii. any exceedance of the rolling, 12-month natural gas limitation of 400 x (10<sup>6</sup>scf), combined, for emissions units B040, B041, B042, B043, B044 and B045; and
    - iii. any exceedance of the rolling, 12-month digester gas limitation of 700 x (10<sup>6</sup>scf), combined, for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and



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

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

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

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 shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

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

b. Emission Limitation:

0.020 pound PE per MMBtu of actual heat input

Applicable Compliance Method:

If required, compliance with this PE limitation shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

c. Emission Limitation:

1.32 pounds per hour and 5.77 tons per year carbon monoxide

Applicable Compliance Method:

Compliance with the short term CO limitation is demonstrated through the use of emissions factors published in AP-42, Volume 1, Fifth Edition, Section 1.4 "Natural Gas Combustion" (84 lbs/MMcu.ft.).

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).



If required, compliance with these limitations shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

d. Emission Limitation:

1.69 pounds per hour and 7.42 tons per year nitrogen oxide

Applicable Compliance Method:

Compliance with the short term NO<sub>x</sub> limitation is demonstrated through the use of emissions factors derived from the March/April 2009 stack test conducted at the facility (180 lbs/MMcu.ft.).

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with these limitations shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7e.

e. Emission Limitation:

0.09 pound per hour and 0.38 ton per year volatile organic compounds

Applicable Compliance Method:

Compliance with the short term VOC limitation is demonstrated through the use of emissions factors published in AP-42, Volume 1, Fifth Edition, Section 1.4 "Natural Gas Combustion" (5.50 lbs/MMcu.ft.).

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with the hourly VOC emission limitation shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Methods 18, 25 or 25A.

f. Emission Limitation:

0.09 pound per hour and 0.39 ton per year particulate emissions

Applicable Compliance Method:

Compliance with the short term PE limitation is demonstrated through the use of emissions factors published in AP-42, Volume 1, Fifth Edition, Table 2.4-5, Section 2.4 "Municipal Solid Waste Landfills" (0.7 methane/digester gas ration, 8.2 lbs PE/MMcu.ft. \* 0.7 methane/digester gas = 5.74 lbs PE/MMcu.ft.).



Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with this PE limitation shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

g. Emission Limitation:

1.96 pounds per hour and 8.59 tons per year sulfur dioxide

Applicable Compliance Method:

Compliance with the short term SO<sub>2</sub> limitation is demonstrated through the use of an emissions factor derived from use a stoichiometric conversion contained in permit application A0047626 using The Ideal Gas Law (PV = nRT) yielding a factor of 125 lbs SO<sub>2</sub>/MMcu.ft.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, compliance with these limitations shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

h. Emission Limitation:

29.40 tons CO per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045

36.00 tons NO<sub>x</sub> per rolling, 12-month period when burning natural gas for emissions units B040, B041, B042, B043, B044 and B045

1.93 tons VOC per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045

2.01 tons PE per rolling, 12-month period when burning digester gas for emissions units B040, B041, B042, B043, B044 and B045

43.75 tons SO<sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045

Applicable Compliance Method:

Compliance with the rolling, 12-month limitations is determined by multiplying the actual natural gas/digester gas usage required in d)(1) by the following emission factors:



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<u>Pollutant</u>	<u>Emission Factor</u>
CO	84lbs/MMcu.ft (digester gas)
NO <sub>x</sub>	180lbs/MMcu.ft (natural gas)
VOC	5.50lbs/MMcu.ft (digester gas)
PE	5.74lbs/MMcu.ft (digester gas)
SO <sub>2</sub>	125lbs/MMcu.ft (digester gas-B027 through B035 flaring to waste sweet gas (See C.3.f)(1)c.)and B036 through B045)
SO <sub>2</sub>	550lbs/MMcu.ft (digester gas-B027 through B035 flaring of sour gas (See C.3.f)(1)h.)

g) Miscellaneous Requirements

- (1) None.



**7. Emissions Unit Group -Sludge Control Bldg./ DG Boilers: B036,B037,B038,B039,**

EU ID	Operations, Property and/or Equipment Description
B036	Digester gas / natural gas boiler number 1
B037	Digester gas / natural gas boiler number 2
B038	Digester gas / natural gas boiler number 3
B039	Digester gas / natural gas boiler number 4

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), as effective 11/30/01	Emissions from B036, B037, B038, and B039, individually, shall not exceed:  0.09 lb/hr and 0.40 ton per year particulate emissions (PE) while burning digester gas  1.96 lbs/hr and 8.58 tons per year of sulfur dioxide (SO <sub>2</sub> ) while burning digester gas  1.69 lbs/hr and 7.42 tons per year nitrogen oxide (NO <sub>x</sub> ) while burning natural gas  1.32 lbs/hr and 5.78 tons per year carbon monoxide (CO) while burning digester gas  0.05 lb/hr and 0.23 ton per year volatile organic compounds (VOC) while burning natural gas  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3),	See b)(2)b.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	as effective 12/01/06	
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD	Emissions shall not exceed:  43.75 tons SO <sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045  See b)(2)c., c)(1), d)(2), e)(1), and f)(1)g.
d.	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.
e.	OAC rule 3745-17-10(B)(1)	0.020 pound PE per million Btu of actual heat input.
f.	OAC rule 3745-18-06(B)	Exempt from d), f) and g), as rated less than 10 MMBtu/hr

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (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 the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) 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 OAC rule 3745-31-05, then these emission limitations/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 CO, NO<sub>x</sub>, VOC, PE and SO<sub>2</sub> emissions from these air contaminant sources since the calculated annual emission rate for these pollutants is less than 10 tons/year individually. These emissions units are further restricted by a synthetic minor restriction on the usage of digester gas to avoid PSD for SO<sub>2</sub>.



- c. These 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 emissions, upon issuance of this permit. The emissions of SO<sub>2</sub> from B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045 shall not exceed 43.75 ton, based upon a rolling, 12-month summation of the emissions.
- d. The hourly allowable emission limitations for these emissions units were established to reflect the hourly “worst case” potential to emit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.

c) Operational Restrictions

- (1) The combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045 shall not exceed 700 x (10<sup>6</sup>scf) per rolling, 12-month period. **(Note that the digester gas usage for emission units B027, B028, B029, B030, B031, B032, B033, B034 and B035 corresponds to the gas flared)**
- (2) The permittee shall burn only natural gas and/or digester gas in these emissions units.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas and/or digester gas, the permittee shall maintain a record of the type and quantity of fuel burned in these emissions units.
- (2) The permittee shall maintain monthly records of the following information:
  - a. the combined digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045; and
  - b. the combined rolling 12-month digester gas usage for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045

The rolling, 12-month usage of digester gas is determined by adding the total usage of digester gas for the current month to the total usage of digester gas from the preceding 11 months.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. all exceedances of the rolling, 12-month SO<sub>2</sub> emissions limitation for emission units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045.;



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- b. any day when a fuel other than natural gas and/or digester gas was burned in these emission units;
- c. any exceedance of the rolling, 12-month digester gas usage limitation of 700 x (10<sup>6</sup>scf), combined, for emission units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045.

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

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 shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method:

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

- b. Emission Limitation

0.09lb/hr and 0.4 ton per year PM while burning digester gas

Applicable Compliance Method

Compliance with the allowable mass emission rate for particulate emissions may be determined by multiplying the maximum digester gas usage of 15,667scf/hr by an emission factor of 8.2 lbs per million scf and a 0.7 methane/digester gas ratio. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 2.4 Table 2.4-5(11/98).

Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

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



c. Emission Limitation

1.96lbs/hr and 8.58 tons per year SO<sub>2</sub> while burning digester gas

Applicable Compliance Method

Compliance with the allowable mass emission rate for sulfur dioxide may be determined by multiplying the maximum digester gas usage of 15,667 scf/hr by an emission factor of 125.0 lbs per million scf. This emission factor is specified in the permit application submitted for PTI 01-01305 as issued final on January 12, 2006.

Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

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

d. Emission Limitation

1.69lbs/hr and 7.42 tons per year NO<sub>x</sub> while burning natural gas

Applicable Compliance Method

Compliance with the allowable mass emission rate for nitrogen oxide emissions may be determined by multiplying the maximum gas usage of 9,415 scf/hr by an emission factor of 180lbs per million scf. This emission factor was established by stack tests performed on these emissions units March 31 through April 1 2009.

Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, the permittee shall demonstrate compliance with the emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7 or 7E.

e. Emission Limitation

1.32lbs/hr and 5.78 tons per year CO while burning digester gas

Applicable Compliance Method

Compliance with the allowable mass emission rate for carbon monoxide may be determined by multiplying the maximum digester gas usage of 15,667 scf/hr by an emission factor of 84.0lbs per million scf. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4 Table 1.4-1 (7/98).



Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, the permittee shall demonstrate compliance with the emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6 and 10.

f. Emission Limitation

0.05 lb/hr and 0.23ton per year VOC while burning natural gas

Applicable Compliance Method

Compliance with the allowable mass emission rate for VOC emissions may be determined by multiplying the maximum gas usage of 9,415 scf/hr by an emission factor of 5.5lbs per million scf. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4 Tables 1.4-1 and 1.4-2(7/98).

Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

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

g. Emission Limitation

43.75 tons SO<sub>2</sub> per rolling, 12-month period when burning digester gas for emissions units B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B037, B038, B039, B040, B041, B042, B043, B044 and B045

Applicable Compliance Method

Compliance with the rolling, 12-month limitation shall be based upon the records maintained in section d)(2) and the following emission factors:

SO<sub>2</sub> 125lbs/MMcu.ft (digester gas-B027 through B035 flaring to waste sweet gas (See C.3.f)(1)c.)and B036 through B045)

SO<sub>2</sub> 550lbs/MMcu.ft (digester gas-B027 through B035 flaring of sour gas (See C.3.f)(1)h.)

h. Emission Limitation:

0.020 pound PE per MMBtu of actual heat input



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Applicable Compliance Method:

If required, compliance with this PE limitation shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

- g) Miscellaneous Requirements
  - (1) None.