



Environmental  
Protection Agency

John R. Kasich, Governor

Mary Taylor, Lt. Governor

Scott J. Nally, Director

6/19/2012

Pamela Blakley *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: City of Toledo, Division of Water Reclamation  
Facility ID: 0448010737  
Permit Type: Initial  
Permit Number: P0108922

Dear Ms. Blakley:

A proposed OAC Chapter 3745-77 Title V permit for the referenced facility has been issued for review by U.S. EPA. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.ohio.gov/dapc> in Microsoft Word and Adobe Acrobat format. 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, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Toledo Department of Environmental Services





## **PROPOSED**

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

for

City of Toledo, Division of Water Reclamation

Facility ID:	0448010737
Permit Number:	P0108922
Permit Type:	Initial
Issued:	6/19/2012
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





Division of Air Pollution Control
Title V Permit
for
City of Toledo, Division of Water Reclamation

Table of Contents

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

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations .....	15
B. Facility-Wide Terms and Conditions.....	16
C. Emissions Unit Terms and Conditions .....	18
1. P109, Co-Generation turbine .....	19
2. Emissions Unit Group - P105 & P106 nat gas/digester gas generators.....	37
3. Emissions Unit Group - Waste Gas Burners 1 & 2: P110, P111,.....	52



## Authorization

Facility ID: 0448010737  
Facility Description: Waster water treatment plant  
Application Number(s): A0042998, A0043113  
Permit Number: P0108922  
Permit Description: Waster water treatment plant initial Title V permit  
Permit Type: Initial  
Issue Date: 6/19/2012  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Superseded Permit Number:

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

City of Toledo, Division of Water Reclamation  
3900 North Summit St.  
Toledo, OH 43611

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services  
348 South Erie Street  
Toledo, OH 43604  
(419)936-3015

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 Toledo Department of Environmental Services. 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



## **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 Toledo Department of Environmental Services.

*(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.

- (1) 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: 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.

## **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) B.3.
2. The following emissions units contained in this permit are subject to the applicable requirements of 40 CFR Part 60, Subparts A and KKKK: P109. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Toledo Division of Environmental Services.
3. The following emissions units contained in this permit are subject to the applicable requirements of 40 CFR Part 63, Subparts A and ZZZZ: P105 and P106. The complete MACT requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Toledo Division of Environmental Services.
4. Emergency electrical generators, water pumps, or air compressors:
  - a) Effective December 19, 2008 the permittee was authorized to install/operate a source of air pollution according to the permit-by-rule provisions of OAC 3745-31-03(A)(4)(a) and (b). The permittee agreed to operate and maintain the facility and equipment in accordance with the applicable permit-by-rule provisions.
    - P101 – diesel-fired emergency generator - Emergency generator 1
    - P102 – natural-gas fired emergency generator - Emergency generator 2
    - P103 – natural-gas fired emergency generator - Emergency generator 3
    - P104 – natural-gas fired emergency generator - Emergency generator 4
    - P108 – diesel-fired emergency generator - Emergency generator 8
  - b. The following emissions units contained in this permit are subject to the applicable requirements of 40 CFR Part 63, Subpart ZZZZ: P101, P102, P103, P104 and P108 per 63.6590(a)(1)(iii). The complete MACT requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Toledo Division of Environmental Services.
5. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:
  - B001 – SH Boiler 1 (permit exempt)
  - B002 – SH Boiler 2 (permit exempt)
  - B003 – SH Boiler 3 (permit exempt)

## C. Emissions Unit Terms and Conditions



**1. P109, Co-Generation turbine**

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

P109 - Natural Gas/Digester Gas/Landfill Gas powered combustion turbine for combined cycle cogeneration system

- 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
<i>56.1 mmBtu/hr natural gas/digester gas/landfill gas combustion turbine</i>		
a.	OAC rule 3745-31-05(A)(3)  (established in PTI 04-01485, issued 2/18/2008)	Carbon monoxide (CO) emissions shall not exceed 29.2 lb/hr and 127.9 tpy.  Nitrogen oxide (NOx) emissions shall not exceed 18.0 lb/hr and 78.9 tpy.  Volatile organic compound (VOC) emissions shall not exceed 3.3 lb/hr and 14.5 tpy.  See b)(2)a. through b)(2)c.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Particulate matter emissions of 10 microns or less (PM <sub>10</sub> ) shall not exceed 1.29 pounds per hour and 5.7 tons per year.  Visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown.  See b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)e.
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 3745-17-11(B)(4)	Particulate emissions (PE) from the turbine's exhaust shall not exceed 0.040 pound per million Btu of actual heat input.
f.	OAC rule 3745-18-06(F)	The emissions limitation specified by this rule is less stringent than the emissions limitation established by OAC rule 3745-31-05(A)(3).
g.	40 CFR Part 60, Subpart KKKK (40 CFR Part 60.4300 – 60.4420)  [In accordance with 40 CFR 60.4305(a), this emissions unit has a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 mmBtu) per hour, based on the higher heating value of the fuel.]	SO <sub>2</sub> emissions shall not exceed 110 nanograms per Joule (0.90 pounds per mega-Watt hour) or 26 ng SO <sub>2</sub> /J (0.060 lb SO <sub>2</sub> /mmBtu).  SO <sub>2</sub> emissions shall not exceed 65 nanograms per Joule (0.15 pound per mmBtu) heat input when burning at least 50 percent biogas on a calendar month basis.  NO <sub>x</sub> emissions shall not exceed 25 ppm at 15 percent oxygen or 150 ng/J of useful output (1.2 lb/MWh) while firing natural gas.  NO <sub>x</sub> emissions shall not exceed 74 ppm at 15 percent oxygen or 460 ng/J of useful output (3.6 lb/MWh) while firing fuels other than natural gas.
<i>65.3 mmBtu/hr natural gas/digester gas/landfill gas heat recovery steam generator (hrsg)</i>		
h.	OAC rule 3745-31-05(A)(3) (PTI 04-01485, issued 2/18/2008)	Carbon monoxide (CO) emissions shall not exceed 7.31 lb/hr and 32.0 tpy.  Nitrogen oxide (NO <sub>x</sub> ) emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 12.3 lb/hr and 53.9 tpy.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 1.40 lb/hr and 6.13 tpy.</p> <p>See b)(2)a. through b)(2)c.</p>
i.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Particulate matter emissions of 10 microns or less (PM<sub>10</sub>) shall not exceed 0.49 pound per hour and 2.14 tons per year.</p> <p>Visible particulate emissions from all egress points shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown.</p> <p>See b)(2)d.</p>
j.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)e.
k.	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.
l.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the hrsg's exhaust shall not exceed 0.020 pound per million Btu of actual heat input.
m.	OAC rule 3745-18-06(A)	Exemption for fuel burning equipment during any calendar day in which natural gas is the only fuel burned.
n.	<p>40 CFR Part 60, Subpart KKKK            (40 CFR Part 60.4300 – 60.4420)</p> <p>[In accordance with 40 CFR 60.4305(a), this emissions unit has a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 mmBtu) per hour, based on the</p>	<p>SO<sub>2</sub> emissions shall not exceed 110 nanograms per Joule (0.90 pounds per mega-Watt hour) or 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/mmBtu).SO<sub>2</sub> emissions shall not exceed 65 nanograms per Joule (0.15 pound per mmBtu) heat input when burning at least 50 percent biogas on a calendar month basis.</p> <p>NOx emissions shall not exceed 25 ppm</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	higher heating value of the fuel.]	<p>at 15 percent oxygen or 150 ng/J of useful output (1.2 lb/MWh) while firing natural gas.</p> <p>NOx emissions shall not exceed 74 ppm at 15 percent oxygen or 460 ng/J of useful output (3.6 lb/MWh) while firing fuels other than natural gas.</p> <p>NOx emissions shall not exceed 54 ppm at 15 percent oxygen or 110 ng/J of useful output (0.86 lb/MWh) when operating independent of the turbine.</p>
<i>Natural Gas/Digester Gas/Landfill Gas powered combustion and natural gas/digester gas/landfill gas hrsg</i>		
o.	OAC rule 3745-31-05(D)	<p>The combined annual emissions of CO from the use of P105, P106, and P109 shall not exceed 197.5 tons as a rolling, 12-month summation.</p> <p>See b)(2)f.</p>

(2) Additional Terms and Conditions

- a. The combined emissions of sulfur dioxide (SO<sub>2</sub>) from the turbine and heat recovery steam generator shall not exceed 7.28 pounds per hour and 32.0 tons per year
- b. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
- c. The requirements of this rule also includes compliance with 40 CFR Part 60 Subpart KKKK and OAC rule 3745-17-07(A)(1)
- d. 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)(1)b., b)(1)i., f)(1)a., f)(1)h., f)(1)i., f)(1)q., and f)(1)r.

- e. 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 PM10 emissions from this air contaminant source since the uncontrolled potential to emit for PM10 is less than 10 tons/year.

- f. This annual emissions limitation for CO was established for PTI purposes to avoid PSD review and represents the combined annual potential to emit of emissions units P105, P106 and P109 with a restriction on P109 to 2,500 hours of simultaneous operation with P105 and P106.

c) Operational Restrictions

- (1) The permittee shall only burn natural gas, digester gas or landfill gas in the combustion turbine or hrsg.

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

- (2) The maximum annual operating hours for this emissions unit while operating simultaneously with P105 or P106 shall not exceed 2500 hours as a rolling, 12-month summation.

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

- (3) The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart KKKK, including the following sections:

Table with 2 columns: Reference (60.4333(a)) and Description (Minimize emissions at all times including during startup, shutdown, and malfunction)

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, digester gas or landfill gas in the combustion turbine or hrsg, the permittee shall maintain a record of the type and quantity of fuel burned in the combustion turbine.

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

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

- a. the number of hours during which emissions unit P109 and either P105 or P106 are in simultaneous use, and
- b. the rolling, 12-month summation of the those operating hours.

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

- (3) The permittee shall perform daily checks, when the emissions unit is in 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 emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

- (4) For emission points for which the daily checks show emissions that are representative of normal operation for 30 consecutive operating days, the required frequency of visible emissions checks may be reduced to weekly (once per week, when the emissions unit is in operation). If a subsequent check of such emission point by the permittee or an Ohio EPA inspector indicates abnormal emissions, the frequency of emissions checks shall revert to daily for that emission point until such time as there are 30 consecutive operating days of normal visible emissions.

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

- (5) At the frequencies prescribed in 40 CFR 60.4370, the permittee shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 60.4365. The sulfur content of the fuel shall be determined using total sulfur methods described in 60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 60.17), which measure the major sulfur compounds, may be used.

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



- (6) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 60, Subpart KKKK, including the following sections:

Table with 2 columns: Regulatory Reference (60.4370(c)(1)(i) through (iv)) and Description (Sulfur monitoring custom schedules).

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, digester gas and/or landfill gas was burned in the combustion turbine or hrsg. Each report shall be submitted within 30 days after the deviation(s) occurs.

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

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
a. alleceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit while operating simultaneously with P105 and/or P106.

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

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

- (3) The permittee shall submit semiannual written reports that identify:
a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

- (4) The permittee shall submit notifications and reports to the Toledo Division of Environmental Services as are required pursuant to 40 CFR Part 60, Subpart KKKK, including the following sections:



Table with 2 columns: ID and Description. Rows include 60.4375(a) through 60.4395 with descriptions of sulfur content emissions, performance test results, and reporting requirements.

(5) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

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

(6) The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

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

(7) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit.

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

f) Testing Requirements

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

a. Emission Limitation:

Visible particulate emissions from any stack serving the combustion turbine and hrsg shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions readings performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures of Method 9 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA

approved test methods may be used with prior written approval from the Ohio EPA.

b. Emission Limitation:

Visible particulate emissions from any stack serving the combustion turbine and hrsg shall not exceed 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions readings performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures of Method 9 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

c. Emission Limitation:

CO emissions from the combustion turbine shall not exceed 29.2 pounds per hour

Applicable Compliance Method:

This emissions limitation was developed utilizing the manufacturer's supplied worst case emission factor of 29.2 pounds per hour.

A test conducted on 7/6/2011 and 7/7/2011 resulted in a combined CO emission rate of 0.4 pound per hour from the turbine and hrsg fired with biogas and natural gas.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

d. Emissions Limitation:

CO emissions from the combustion turbine shall not exceed 127.9 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 29.2 pounds of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

e. Emission Limitation:

NOx emissions from the combustion turbine shall not exceed 18.0 pounds per hour

**Applicable Compliance Method:**

This emissions limitation was developed based on a one-time worst case emissions calculation utilizing the emission factor listed in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-1, rev. 10/00, Large Stationary Turbines (0.32 lbNO<sub>x</sub>/mmBtu) multiplied by the maximum rated capacity of the combustion turbine (56.1 MMBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1-4 and Method 7 of 40 CFR, Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

**f. Emissions Limitation:**

NO<sub>x</sub> emissions from the combustion turbine shall not exceed 78.9 tons per year

**Applicable Compliance Method:**

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 18.0 pounds of NO<sub>x</sub> per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

**g. Emissions Limitation:**

PE from the combustion turbine's exhaust shall not exceed 0.040 pound per million Btu of actual heat input.

**Applicable Compliance Method:**

Compliance may be determined by a one-time worst case emissions calculation utilizing the emission factor listed in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2b, rev. 10/00, Large Stationary Turbines (0.023 lb PM<sub>10</sub>/mmBtu for landfill gas), multiplied by the ratio of PE to PM<sub>10</sub> in Table 3.1-2a (1.9:6.6).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1-4 and Method 5 of 40 CFR, Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

**h. Emission Limitation:**

PM<sub>10</sub> emissions from the combustion turbine's exhaust shall not exceed 1.29 pounds per hour

**Applicable Compliance Method:**

This emissions limitation was developed based on a one-time worst case emissions calculation utilizing the emission factor listed in USEPA reference

document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2b, rev. 10/00, Large Stationary Turbines (0.023 lb PM<sub>10</sub>/mmBtu for landfill gas), multiplied by the maximum rated capacity of the combustion turbine (56.1 MMBtu/hr).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

i. Emissions Limitation:

PM<sub>10</sub> emissions from the combustion turbine's exhaust shall not exceed 5.7 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 1.29 pounds of PM<sub>10</sub> per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

j. Emission Limitation:

VOC emissions from the combustion turbine shall not exceed 3.3 pounds per hour

Applicable Compliance Method:

This emissions limitation was developed utilizing the manufacturer's supplied worst case emission factor of 3.3 pounds per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 or 25A of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

k. Emission Limitation:

VOC emissions from the combustion turbine shall not exceed 14.5 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 3.3 pounds of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

I. Emission Limitation:

CO emissions from the heat recovery steam generator shall not exceed 7.31 pounds per hour

Applicable Compliance Method:

This emissions limitation was developed utilizing the manufacturer's supplied worst case emission factor of 7.31 pounds per hour.

A test conducted on 7/6/2011 and 7/7/2011 resulted in a combined CO emission rate of 0.4 pound per hour from the turbine and hrsg fired with biogas and natural gas.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

m. Emissions Limitation:

CO emissions from the heat recovery steam generator shall not exceed 32.0 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 7.31 pounds of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

n. Emission Limitation:

NOx emissions from the heat recovery steam generator shall not exceed 12.3 pounds per hour

Applicable Compliance Method:

This emissions limitation was developed utilizing the manufacturer's supplied worst case emission factor of 12.3 pounds per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1-4 and Method 7 of 40 CFR, Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

o. Emissions Limitation:

NOx emissions from the heat recovery steam generator shall not exceed 53.9 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 12.3 pounds of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

p. Emissions Limitation:

PE from the heat recovery steam generator exhaust shall not exceed 0.020 pound per million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

q. Emission Limitation:

PM<sub>10</sub> emissions from the heat recovery steam generator shall not exceed 0.49 pounds per hour

Applicable Compliance Method:

This emissions limitation was developed based on a one-time worst case emissions calculation utilizing the emission factor listed in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2, rev. 7/98, Natural Gas Combustion (7.6 lb PM<sub>10</sub>/mmft<sup>3</sup> for natural gas), divided by 1,020 mmBtu/mmft<sup>3</sup> and multiplied by the maximum rated capacity of the combustion turbine (65.3 MMBtu/hr).

If required, the permittee shall demonstrate compliance with this emissions limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

r. Emissions Limitation:

PM<sub>10</sub> emissions from the heat recovery steam generator shall not exceed 2.14 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.49 pound of PM<sub>10</sub> per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

s. Emission Limitation:

VOC emissions from the heat recovery steam generator shall not exceed 1.40 pounds per hour

Applicable Compliance Method:

This emissions limitation was developed utilizing the manufacturer's supplied worst case emission factor of 1.4 pounds per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 or 25A of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

t. Emission Limitation:

VOC emissions from the heat recovery steam generator shall not exceed 6.13 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 1.40 pounds of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

u. Emission Limitation:

The NOx emissions from the turbine and heat recovery steam generator shall not exceed shall not exceed 25 ppm at 15 percent oxygen or 150 ng/J of useful output (1.2 lb/MWh) while firing natural gas, or 74 ppm at 15 percent oxygen or 460 ng/J of useful output (3.6 lb/MWh) while firing fuels other than natural gas.

Applicable Compliance Method:

A test conducted on 7/6/2011 and 7/7/2011 resulted in a combined NOx emission rate of 38.8 ppmvd @ 15% O<sub>2</sub> from the turbine and hrsg fired with biogas and natural gas.

The permittee shall demonstrate compliance through monitoring of the total NOx concentrations performed in accordance with 40 CFR 60.4340 and 60.4400.

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

v. Emission Limitation:

The combined emissions of SO<sub>2</sub> from the turbine and heat recovery steam generator shall not exceed 7.28 pounds per hour.

Applicable Compliance Method:

The actual digester gas sulfur content as measured on 7/6/2011 and 7/7/2011 was 0.017 lb SO<sub>2</sub>/mmBtu. Multiply the most recent actual sulfur heat content (lb/mmBtu) by the summation of the maximum rated capacities of the combustion turbine (56.1 mmBtu/hr) and the hrsg (65.3 mmBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

w. Emission Limitation:

The combined emissions of SO<sub>2</sub> from the turbine and heat recovery steam generator shall not exceed 32.0 tons per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 7.28 pounds of SO<sub>2</sub> per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

x. Emission Limitation:

The combined emissions of SO<sub>2</sub> from the turbine and heat recovery steam generator shall not exceed 110 nanograms per Joule (0.90 pounds per mega-Watt hour) or 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/mmBtu)..

Applicable Compliance Method:

A test conducted on 7/6/2011 and 7/7/2011 resulted in a combined SO<sub>2</sub> emission rate of 0.017 pound per mmBtu from the turbine and hrsg fired with digester gas and a combined SO<sub>2</sub> emission rate of 0.006 pound per mmBtu from the turbine and hrsg fired with landfill gas.

The permittee shall demonstrate compliance through monitoring of the total sulfur content of the fuel combusted in this emission unit performed in accordance with 40 CFR 60.4360. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

y. Emission Limitation:

The combined emissions of SO<sub>2</sub> from the turbine and heat recovery steam generator shall not exceed 65 nanograms per Joule (0.15 pound per mmBtu) heat input when burning at least 50 percent biogas on a calendar month basis.

Applicable Compliance Method:

The permittee shall demonstrate compliance through monitoring of the total sulfur content of the fuel combusted in this emission unit performed in accordance with 40 CFR 60.4360. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

z. Emission Limitation:

The NO<sub>x</sub> emissions from the heat recovery steam generator shall not exceed shall not exceed 54 ppm at 15 percent oxygen or 110 nanograms per Joule of useful output (0.86 lb/MWh) when operating independent of the combustion turbine.

Applicable Compliance Method:

A test conducted on 7/6/2011 and 7/7/2011 resulted in a NO<sub>x</sub> emission rate of 25.2 ppmvd @ 15% O<sub>2</sub> when operating the hrsg independent of the combustion turbine.

The permittee shall demonstrate compliance through monitoring of the total NO<sub>x</sub> concentrations performed in accordance with 40 CFR 60.4340 and 60.4400. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

aa. Emissions Limitation:

The combined annual emissions of CO from P109 and either P105 and P106 shall not exceed 197.5 tons as a rolling, 12-month summation.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for the combined emissions from P105, P106 and P109 utilizing the worst-case operating scenario when restricted to 2500 hours of simultaneous operation. Annual CO emissions may be calculated as the summation of the short-term CO emission rate of P109 (36.51 pounds per hour) multiplied by the maximum annual number of hours of operation (8760 hours), plus the short-term CO emission rate of P105 (15.02 pounds per hour) multiplied by the maximum number of hours of simultaneous operation (2,500 hours), plus the short-term CO emission rate of P106 (15.02 pounds per hour) multiplied by the maximum number of hours of simultaneous operation (2,500 hours), divided by 2,000 pounds per ton.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted at the following frequencies:
    - i. for SO<sub>2</sub>, at the frequencies prescribed in 40 CFR 60.4415(a); and
    - ii. for NO<sub>x</sub>, at the frequency prescribed in 40 CFR 60.4340(a).
  - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emissions rate for SO<sub>2</sub> [nanograms per Joule, pounds per mega-Watt hour, or pounds per million Btu] and NO<sub>x</sub> [ppm at 15 percent oxygen, or ng/J of useful output (lb/MWh)].
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emissions rate(s)
    - i. SO<sub>2</sub>: The sulfur content of the fuel shall be determined using total sulfur methods described in 60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 60.17), which measure the major sulfur compounds, may be used. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.
    - ii. NO<sub>x</sub>: 40 CFR 60.4333(b) and 60.4400
  - d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
  - f. Personnel from the Toledo Division of Environmental Services 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 provides 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 submitted to the Toledo Division of Environmental Services within 60 days following completion of the test(s).

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

g) Miscellaneous Requirements

- (1) None.



**2. Emissions Unit Group - P105 & P106 nat gas/digester gas generators**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P105	2889 HP(natural gas) and 2233 HP(digester gas) generator, Engine Generator No. 5
P106	2889 HP(natural gas) and 2233 HP(digester gas) generator, Engine Generator No. 6

- 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.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01475 issued 11/27/2007)	Carbon monoxide (CO) emissions shall not exceed 15.02 lb/hr and 65.79 tons per year.  Nitrogen oxides (NOx) emissions shall not exceed 6.36 lb/hr and 27.86 tons per year.  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 6.72 lb/hr and 29.43 tons per year.  Volatile organic compound (VOC) emissions shall not exceed 3.88 lb/hr and 16.99 tons per year.  See b)(2)a.
b.	OAC rule 3745-31-05(D) (PTI 04-01475 issued 11/27/2007 Synthetic Minor Limitations to avoid New Source Review)	The combined emissions from P105 and P106 shall not exceed 67.59 tons per year CO as a rolling, 12-month summation of the monthly emissions.  The combined emissions from P105 and P106 shall not exceed 28.64 tons per year NOx as a rolling, 12-month summation of the monthly emissions.  The combined emissions from P105 and P106 shall not exceed 30.24 tons per year SO <sub>2</sub> as a rolling, 12-month

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>summation of monthly emissions.</p> <p>The combined emissions from P105 and P106 shall not exceed 17.46 tons per year VOC as a rolling, 12-month summation of the monthly emissions.</p> <p>See c)(3).</p>
c.	OAC rule 3745-31-05(A)(3) as effective 11/30/01	<p>Particulate emissions (PE) shall not exceed 0.002 pound per hour and 0.01 ton per year.</p> <p>See b)(2)b.</p>
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)c.
e.	OAC rule 3745-17-07(A)(1)	Visible emissions of particulate shall not exceed 20% opacity as a 6-minute average, unless otherwise specified by the rule.
f.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 pound per mmBtu of actual heat input.
g.	OAC rule 3745-18-06(G)	Sulfur Dioxide emissions shall not exceed 0.5 lb/MMBtu
h.	40 CFR Part 60 subpart JJJJ	Exempt - see b)(2)d.
i.	40 CFR Part 63 subpart A (40 CFR Part 63.1-15)	Table 8 to subpart ZZZZ of 40 CFR 63 – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
j.	<p>40 CFR Part 63 subpart ZZZZ (40 CFR Part 63.6580 – 63.6675)</p> <p>[In accordance with 40 CFR 63.6585 this emissions unit is an existing, spark ignition four stroke, lean burn (4SLB) stationary reciprocating internal combustion engine (RICE) greater than 500 Hp at an area source of HAP.</p>	see b)(2)e. and b)(2)f.

(2) Additional Terms and Conditions

- a. The requirements of this rule also include compliance with OAC rule 3745-17-07(A)(1), OAC rule 3745-17-11(B)(5)(b) and OAC rule 3745-18-06(G).
- b. 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)(1)c., f)(1)i., and f)(1)j.
- c. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled PE emissions from this air contaminant source since the potential to emit for PE is less than 10 tons per year.
- d. The P105 and P106 engines were manufactured prior to July 1, 2007 and are not subject to the requirements of 40 CFR Part 60 subpart JJJJ.
- e. The compliance date is October 19, 2013, for existing 4 stroke, lean burn RICE.
- f. In accordance with 40 CFR 63.6603(a), the permittee must comply with the requirements of Table 2d:
  - i. limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O<sub>2</sub>; or
  - ii. reduce CO emissions by 93 percent or more.
- g. In accordance with 40 CFR 63.6595(b), if you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, then meet the compliance dates in paragraphs 63.6595(b)(1) and (2) of this section.

c) Operational Restrictions

- (1) The permittee shall only burn digester gas and/or natural gas in this emissions unit.

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

- (2) The quality of digester gas burned in this emissions unit shall meet on an "as burned" basis a sulfur content which is sufficient to comply with the allowable sulfur dioxide limitation of 0.5 pound of sulfur dioxide per million Btu of actual heat input.

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

- (3) The maximum combined annual operating rate for P105 & P106 shall not exceed 9000 hours, based upon a rolling, 12-month summation of the monthly operating hours.

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

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

63.6603(a)	Comply with the operational limitations listed in Table 2b that apply to you.
<i>63.6605 – General Requirements</i>	
63.6605(a)	Comply with the emission limitations and operating limitations that apply to you at all times.
63.6605(b)	Requirements for operating the source safely & with good air pollution control practices to minimize emissions.
63.6630(a)	Demonstrate initial compliance according to Table 5 of this subpart (options 3 or 4).

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

- (1) The permittee shall perform daily checks, when the emissions unit is in 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 emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission

incident under item d. above or continue the daily check until the incident has ended. The observer may indicate that the visible 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 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 emissions.

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

- (2) For emission points for which the daily checks show emissions that are representative of normal operation for 30 consecutive operating days, the required frequency of visible emissions checks may be reduced to weekly (once per week, when the emissions unit is in operation). If a subsequent check of such emission point by the permittee or an Ohio EPA inspector indicates abnormal emissions, the frequency of emissions checks shall revert to daily for that emission point until such time as there are 30 consecutive operating days of normal visible emissions.

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

- (3) The permittee shall install and maintain a device (hour meter) capable of tracking the total hours of operation of the engine.

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

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

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

- (5) The permittee shall collect a representative sample for the digester gas that is burned in this emissions unit.

Sampling shall be performed initially on a quarterly basis. (The permittee may petition the Director to reduce testing frequency based on sampling records.) The permittee shall perform analyses of each digester gas sample for sulfur content, heat content and density in accordance with the appropriate ASTM methods. Alternate, equivalent test methods may be used upon written approval by the Toledo Division of Environmental Services.

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

- (6) The permittee shall maintain monthly records of the following information:
  - a. the operating hours of P105 and of P106 for each month; and

- b. the rolling, 12-month summation of the combined operating hours for P105 and P106.

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

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

<i>63.6625 - Monitoring, collection, operation and maintenance requirements.</i>	
63.6625(b)	Requirements for installation and maintaining a continuous parameter monitoring system (CPMS)
63.6625(h)	Requirement to minimize the engine's time spent at idle during startup and states when the emissions standards apply after startup.
<i>63.6630 – How to demonstrate initial compliance with emission limitations and operating limits.</i>	
63.6630(a)	Demonstrate initial compliance with each emission and operating limitation that applies to you from Table 5.
<i>63.6635 – Monitor and collect data to demonstrate continuous compliance.</i>	
63.6635(a)	Monitor and collect data according to this section.
63.6635(b)	Monitor continuously at all times when RICE is operating except for monitor malfunctions.
63.6635(c)	Information regarding valid and invalid recorded data.
<i>63.6640 – Demonstrating continuous compliance with the emission limitations and operating limitations.</i>	
63.6640(a)	Demonstrate continuous compliance with the emission limitations and operating limitations in Tables 2b and 2d. according to the methods specified in Table 6.
<i>63.6655 – Recordkeeping requirements</i>	
63.6655(a), (a)(1) through (a)(5)	Recordkeeping requirements.
63.6655(b), (b)(1) through (b)(3)	Recordkeeping requirements for the CPMS.
63.6655(d)	Recordkeeping requirements from Table 6 to show continuous compliance (i.e., # 11).

63.6655(e)	Recordkeeping requirements regarding maintenance on the stationary RICE.
<i>63.6660 – Form and length of record retention</i>	
63.6660(a)	Keep records in a suitable form and readily available for expeditious review according to 63.10(b)(1).
63.6660(b)	Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record, as specified in 63.10(b)(1).
63.6660(c)	Keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 63.10(b)(1).

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. the rolling, 12-month limitation on the combined hours of operation for P105 and P106; and
  - ii. 0.5 pound of sulfur dioxide per million Btu of actual heat input.
- 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 (the appropriate District Office or local air agency).

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

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or digester gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation(s) occurs.

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

- (3) The permittee shall submit semiannual written reports that identify:
- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
  - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

- (4) The permittee shall submit semiannual reports and such other notifications and reports to the appropriate Ohio EPA District office or local air agency as are required pursuant to 40 CFR Part 63, Subpart ZZZZ, per the following sections:

63.6595(c)	Meet the notification requirements in 63.6645 and 40 CFR 63, Subpart A.
63.6630(c)	Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to 63.6645.
63.6640(b)	Permittee must report each instance where the emission limitation or operating limitation was not met as deviations according to the reporting requirements in 63.6650.
63.6640(e)	Reporting deviations or instances when the requirements of Table 8 were not met.
<i>63.6645 – Notification Requirements</i>	
63.6645(a) and (a)(2)	Submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified.
63.6645(a)(5)	The above requirement does not apply if the permittee is not subject to any numerical emission standards (i.e., if only digester gas is combusted).

63.6645(g)	If you are required to conduct a performance test, submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 63.7(b)(1).
63.6645(h), (h)(1) and (h)(2)	If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, submit a Notification of Compliance Status according to 63.9(h)(2)(ii).
<b>63.6650 – Reporting Requirements</b>	
63.6650(a)	Submit each report in Table 7 that applies to you (i.e., option 1)
63.6650(b), (b)(1) through (b)(5)	Date requirements for submittal of the semiannual compliance report.
63.6650(c), (c)(1) through (c)(6)	Information that must be in the compliance report.
63.6650(d), (e) and 63.6650(f)	Requirements for reporting deviations in the compliance report.

- (5) The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

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

- (6) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

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

f) **Testing Requirements**

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

a. Emissions Limitation:

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

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions readings performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures of Method 9 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

b. Emission Limitation:

CO emissions shall not exceed 15.02 pounds per hour

Applicable Compliance Method

This emission limitation was established to reflect the potential to emit for this emissions unit at the maximum operating load based on calculations as follows: multiply the manufacturer's supplied emission factor (2.36 g/hp-hr) by the maximum horsepower (2889 hp) and divide by 454 g/lb.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

c. Emission Limitation:

CO emissions shall not exceed 65.79 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at a maximum total operating rate of 8760 hours per year. Compliance may be demonstrated through calculations performed as follows: multiply the hourly allowable emissions rate (15.02 lbs/hr CO) by 8,760 hours per year of operation and divide by 2,000 pounds per ton.

d. Emission Limitation:

The combined emissions from P105 and P106 shall not exceed 67.59 tons per year of CO as a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the actual combined hours of operation of P105 and P106 as recorded under Section d)(6) by the allowable hourly emissions rate (15.02 lb/hr) and dividing by 2,000 pounds per ton.

e. Emissions Limitation:

NOx emissions shall not exceed 6.36 pounds per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at the maximum operating load based on calculations as follows: multiply the manufacturer's supplied emission factor (1 g/hp-hr) by the maximum horsepower (2889 hp) and divide by 454 g/lb.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

f. Emissions Limitation:

NOx emissions shall not exceed 27.86 tons per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at a maximum operating rate of 8760 hours per year. Compliance may be demonstrated through calculations performed as follows: multiply the hourly allowable emissions rate (6.36 lbs/hrNOx) by 8,760 hours per year of operation and divide by 2,000 pounds per ton.

g. Emission Limitation:

The combined emissions from P105 and P106 shall not exceed 28.64 tons per year of NOx as a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the actual combined hours of operation of P105 and P106 as recorded under d)(6) by the manufacturer's supplied emission factor (1 g/hp-hr), multiplying by the maximum horsepower rating (2,889 hp), dividing by 454 grams per pound, and dividing by 2,000 pounds per ton.

h. Emissions Limitation:

PE emissions shall not exceed 0.062 pound per mmBtu of actual heat input.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

i. Emissions Limitation:

PE emissions shall not exceed 0.002 pound per hour

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 3.2-2 dated 7/00, as follows: multiply the maximum natural gas usage rate (19,642 cubic feet per hour) by a heating value of 1,020 Btus per standard cubic foot multiplied by the emission factor of 7.71 E-05 pounds of PE per mmBtu and divide by a heating value of 10E06 Btus per mmBtu.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

j. Emissions Limitation:

PE emissions shall not exceed 0.01 ton per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at a maximum operating rate of 8760 hours per year. Compliance may be demonstrated through calculations performed as follows: multiply the hourly allowable emissions rate (0.002 lbs/hr PE) by 8,760 hours per year of operation and divide by 2,000 pounds per ton.

k. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.5 lb/mmBtu

Applicable Compliance Method

If required, the permittee shall demonstrate compliance using the procedures specified in OAC rule 3745-18-04(E) and 3745-18-04(F)(3). Alternative U.S.

EPA approved test methods may be used with prior written approval from the Ohio EPA.

I. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 6.72 pounds per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at the maximum operation load while burning digester gas based on calculations as follows: Multiply the maximum heat input for digester gas, 13.43 mmBtu/hr by the maximum sulfur content, 0.5 lb/mmBtu.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

m. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 29.43 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at a maximum total operating rate of 8760 hours per year. Compliance may be demonstrated through calculations performed as follows: multiply the hourly allowable emissions rate (6.72 lbs/hr SO<sub>2</sub>) by 8,760 hours per year of operation and divide by 2,000 pounds per ton.

n. Emission Limitation:

The combined emissions from P105 and P106 shall not exceed 30.24 tons per year of SO<sub>2</sub> as a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the actual combined hours of operation of P105 and P106 as recorded under Section d)(6) by the allowable hourly emissions rate (6.72 lb/hr) and dividing by 2,000 pounds per ton.

o. Emission Limitation:

VOC emissions shall not exceed 3.88 pounds per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at the maximum operating load based on calculations as follows:

multiply the manufacturer's supplied emission factor (0.61 g/hp-hr) by the maximum horsepower (2889 hp) and divide by 454 g/lb.

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 25 or 25A of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

p. Emission Limitation:

VOC emissions shall not exceed 16.99 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit at a maximum operating rate of 8760 hours per year. Compliance may be demonstrated through calculations performed as follows: multiply the hourly allowable emissions rate (3.88 lbs/hr VOC) by 8,760 hours per year of operation and divide by 2,000 pounds per ton.

q. Emission Limitation:

The combined emissions from P105 and P106 shall not exceed 17.46 tons per year of VOC as a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the actual combined hours of operation of P105 and P106 as recorded under Section d)(6) by the allowable hourly emissions rate (3.88 lb/hr) and dividing by 2,000 pounds per ton.

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

63.6603	Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 63.6620 and Table 4 to this subpart.
63.6612(a)	Requirements for initial performance test, performed within 180 days after the compliance date.
63.6615	Frequency of performance tests as specified in Table 3.
63.6620, 63.6620(a) through (i)	Lists required performance tests and procedures.

- g) Miscellaneous Requirements
  - (1) None.

**3. Emissions Unit Group - Waste Gas Burners 1 & 2: P110, P111,**

EU ID	Operations, Property and/or Equipment Description
P110	Waste Gas Burner No. 1
P111	Waste Gas Burner No. 2

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-18-06(E)(2)	Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 600 lb/hr.

(2) Additional Terms and Conditions

a. The uncontrolled potential to emit for SO<sub>2</sub> is 0.23 pounds per hour per flare. Therefore, monitoring, recordkeeping, and reporting is not necessary to demonstrate compliance with this emission limitation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

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:

SO<sub>2</sub> emissions shall not exceed 600 pounds per hour

Applicable Compliance Method:

This emission limitation was established using the calculations as follows:

$$\text{AER} = 30\text{P}^{0.67}$$

where:

AER = allowable emissions rate, lb SO<sub>2</sub>/hr

P = process weight rate, tph (EAC form indicates a maximum production rate of 87.48 tons/hr sludge loading)

On July 6 and 7, 2011, the permittee conducted sampling and analysis of the digester gas for total sulfur and heat content and determined that the sulfur dioxide emission rate from combustion of digester gas was 0.017 lb/mmBtu. The maximum digester gas flow rate to each flare is 22,250 scf/hr at a heating value of 600 Btu/cf. The maximum SO<sub>2</sub> emission rate based on the testing is 0.23 pound SO<sub>2</sub> per hour, per flare, based on the following calculation:

$$22,250 \text{ ft}^3/\text{hr} (600 \text{ Btu}/\text{ft}^3) (\text{mmBtu}/\text{hr}/10^6 \text{ Btu})(0.017 \text{ lb SO}_2/\text{mmBtu}) = 0.23 \text{ lb SO}_2/\text{hr}$$

If required, the permittee shall demonstrate compliance with this emissions limitation using Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

g) Miscellaneous Requirements

(1) None.