

Facility ID: 0640000002 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 064000002 Emissions Unit ID: P901 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P901 - Pretreatment Digester controlled by a 3.5 MMBTU/hr Biogas Flare	OAC rule 3745-31-05(A)(3) (PTI 06-07816 issued 3/2/06)	Emissions from the stack shall not exceed the following: Particulate emissions (PE) from the flare shall not exceed 40 ug/L, 0.082 TPY. Nitrogen Oxides (NOx) emissions from the stack shall not exceed 0.24 lb/hr, 1.1 TPY. Carbon Monoxide (CO) emissions from the stack shall not exceed 1.3 lb/hr, 5.7 TPY. Organic Compounds (OC) emissions from the stack shall not exceed 0.49 lb/hr, 2.2 TPY. Sulfur Dioxide (SO2) emissions from the stack shall not exceed 1.34 lb/hr, 5.9 TPY Visible particulate emissions from the boiler stack shall not exceed 0% opacity as a six-minute average, while burning biogas. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(1), 3745-18-06(B), and 3745-21-08(B).
	OAC rule 3745-17-11(B)(1)	The emission limit specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-18-06(B)	Exempt. See A.2.b.
	OAC 3745-21-08(B)	See A.2.c.

2. Additional Terms and Conditions

- (a) The permittee shall burn only digester gas (biogas) in this emissions unit with a hydrogen sulfide (H2S) concentration no greater than 1000 ppmv. OAC rule 3745-18-06(B) exempts fuel burning sources which have rated heat input capacities equal to, or less than, 10 million Btu/hr total rated capacity are exempt from paragraphs (D), (F) and (G) of this rule and from rules 3745-18-07 to 3745-18-94 of the Administrative Code. This emissions unit has a rated heat input of 3.5 million Btu/hr. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision

occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

1. The permittee shall burn only digester gas in this emissions unit with a percent sulfur content no greater than 0.1 (1000ppm).

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the percent sulfur content of the biogas daily.
2. 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. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when the percent sulfur content of the biogas exceeded 0.1 percent. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semiannual written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
Emission Limitation : Particulate emissions (PE) from the flare shall not exceed 40 ug/L, 0.082 TPY.

Compliance Method: Compliance may be demonstrated using the following equations based on the emission factor in AP-42, Table 13.5-1 (9/91):

$$65,700,000 \text{ cf/yr biogas } (28.32 \text{ L/cf})(40 \text{ ug/L})(2.2046 \times 10^{-3} \text{ lb/g})(1/1,000,000 \text{ ug/g}) = 164.07 \text{ lb/yr PE.} \\ (164.07 \text{ lb/yr})(0.0005 \text{ lb/ton}) = 0.082 \text{ TPY}$$

If required, Particulate emissions shall be determined according to test Methods 1 - 4, and 5 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Emission Limitation: Nitrogen Oxides (NOx) emissions from the stack shall not exceed 0.24 lb/hr, 1.1 TPY.

Compliance Method: Compliance may be demonstrated using the following equations based on the emission factor in AP-42, Table 13.5-1 (9/91):

$$(0.068 \text{ lb/MMBtu})(3.5 \text{ MMBtu/hr}) = 0.238 \text{ lb/hr} \\ (0.24 \text{ lb/hr})(8760 \text{ hrs/hr})(0.0005 \text{ lb/ton}) = 1.05 \text{ TPY}$$

If required, nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Emission Limitation: Carbon Monoxide (CO) emissions from the stack shall not exceed 1.3 lb/hr, 5.7 TPY.

Compliance Method: Compliance may be demonstrated using the following equations based on the emission factor in AP-42, Table 13.5-1 (9/91):

$$(0.37 \text{ lb/MMBtu})(3.5 \text{ MMBtu/hr}) = 1.295 \text{ lb/hr} \\ (1.295 \text{ lb/hr})(8760 \text{ hrs/hr})(0.0005 \text{ lb/ton}) = 5.67 \text{ TPY}$$

If required, carbon monoxide emissions shall be determined according to test Methods 1 - 4, and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Emission Limitation: Organic Compounds (OC) emissions from the stack shall not exceed 0.49 lb/hr, 2.2 TPY.

Compliance Method: Compliance may be demonstrated using the following equations based on the emission factor in AP-42, Table 13.5-1 (9/91):

$$(0.14 \text{ lb/MMBTU})(3.5 \text{ MMBTU/hr}) = 0.49 \text{ lb/hr} \\ (0.49 \text{ lb/hr})(8760 \text{ hrs/hr})(0.0005 \text{ lb/ton}) = 2.146 \text{ TPY}$$

If required, organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New

Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Emission Limitation: Sulfur Dioxide (SO₂) emissions from the stack shall not exceed 1.34 lb/hr, 5.9 TPY.

Compliance Method: Compliance may be demonstrated using the following equations based on the emission factor in the PTI application:

$$(0.383 \text{ lb/MMBTU})(3.5 \text{ MMBTU/hr}) = 1.34 \text{ lb/hr}$$
$$(1.34 \text{ lb/hr})(8760 \text{ hrs/hr})(0.0005 \text{ lb/ton}) = 5.869 \text{ TPY}$$

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Emission Limitation: Visible particulate emissions from the boiler stack shall not exceed 0% opacity as a six-minute average, while burning biogas.

Compliance Method: If required, visible particulate emissions shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources".

F. Miscellaneous Requirements

1. None