



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL
SUMMIT COUNTY
Application No: 16-02431
Fac ID: 1677010255**

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 1/19/2006

City of Akron WPC-Composting Facility
Annette Berger
2677 Riverview Rd
Akron, OH 44313

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern
Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

REC'D. ARAQMD
2006 JAN 26 PM 12: 52

CC: USEPA

ARQMD



**Permit To Install
Terms and Conditions**

**Issue Date: 1/19/2006
Effective Date: 1/19/2006**

FINAL PERMIT TO INSTALL 16-02431

Application Number: 16-02431
Facility ID: 1677010255
Permit Fee: \$400
Name of Facility: City of Akron WPC-Composting Facility
Person to Contact: Annette Berger
Address: 2677 Riverview Rd
Akron, OH 44313

Location of proposed air contaminant source(s) [emissions unit(s)]:
**2677 Riverview Rd
Akron, Ohio**

Description of proposed emissions unit(s):
Fuel Burning Equipment NG/Biogas Fired, Flare Back-up.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) 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. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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.)

3. Records Retention Requirements

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.

4. 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.

5. 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).

6. 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.

7. 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.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions

may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this

permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. 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. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	20.6
NOx	7.45

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
<p>B001 (CHPU) combined heat/power unit burns biogas [rated energy value 650 Btu/cubic foot], which is primarily methane, from WWTP anaerobic sewage sludge digestion system -- stationary small internal combustion engine [GE Jenbacher, Model JMS 208 GS-B.L, 468 bhp rated power output, 3.156 mmBtu/hr rated heat input] driving a 335 kW electrical generator; particulate emissions (PE), and emissions of carbon monoxide (CO) and nitrogen oxides (NOx) uncontrolled; all other emissions uncontrolled and de minimis per OAC rule 3745-15-05.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>3.20 lbs/hr & 14.0 TPY CO; and 1.20 lbs/hr & 5.26 TPY NOx</p>
	<p>OAC rule 3745-17-11(B)(5)(a)</p>	<p>10% opacity from the stack, as a 6-minute average</p>
	<p>OAC rule 3745-21-08(B)</p>	<p>The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-08(B).</p>
	<p>OAC rule 3745-17-07(A) OAC 3745-23-06(B)</p>	<p>See sections A.2 and B.1 below for other requirements of OAC rule 3745-31-05(A)(3).</p>
		<p>0.310 pound of PE per million Btu actual heat input for a stationary small internal combustion engine</p>
		<p>See A.2.b below.</p>
		<p>The emissions limitations and control requirements specified by these rules are less stringent than the emissions limitations and control requirements established pursuant to OAC rule 3745-31-05(A)(3).</p>

2. Additional Terms and Conditions

- 2.a** The hourly NOx and CO emissions limitations established pursuant to OAC rule 3745-31-05(A)(3), and the PE limitation from OAC rule 3745-17-11(B)(5)(a) are greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emissions limitations.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed change such as equipment modification or change in the fuels burned that would increase the potential to emit for any air pollutant.

- 2.b** The permittee satisfies the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

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 the fuel specified by the application in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than the type specified by the application, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day, type and quantity of fuel when a fuel other than the type specified by the application was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods using applicable emission factors, as noted:

- a. Emission Limitation: 10% opacity, as a 6-minute average

Applicable Compliance Method: If required, compliance shall be determined by visible particulate emissions evaluations performed using the procedures specified in USEPA Method 9.

- b. Emission Limitation: 0.310 pound of PE per million Btu actual heat input

Applicable Compliance Method:

The permittee may use the AP-42, 7/00, Table 3.2-3 emission factor of 0.00950 pound of particulates (filterable) per million Btu of actual heat input to demonstrate compliance. This assumes all particulates emitted are of aerodynamic diameter of 10 micrometers or under.

If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

- c. Emission Limitation: 1.20 lbs/hr & 5.26 TPY NO_x

Applicable Compliance Method: The permittee may demonstrate compliance with the above limitations based upon the following calculations of the potential to emit:

$$H = PN(1 \text{ pound}/453.6 \text{ grams}) = 1.13 \text{ lbs/hr NO}_x$$
$$(1.13 \text{ lbs/hr NO}_x)(8760 \text{ hrs/yr})(1 \text{ ton}/2000 \text{ lbs}) = 4.95 \text{ TPY NO}_x$$

where:

H = hourly potential to emit;

P = 468 bhp [internal combustion engine maximum rated output power]; and

N = 1.1 grams/bhp-hr [manufacturer's NO_x emission factor].

If required, compliance with the hourly NO_x emissions limit shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 7E.

- d. Emission Limitation: 3.20 lbs/hr & 14.0 TPY CO

Applicable Compliance Method: The permittee may demonstrate compliance with the above limitations based upon the following calculations of the potential to emit:

$$H = PC(1 \text{ pound}/453.6 \text{ grams}) = 3.10 \text{ lbs/hr CO}$$
$$(3.10 \text{ lbs/hr CO})(8760 \text{ hrs/yr})(1 \text{ ton}/2000 \text{ lbs}) = 13.6 \text{ TPY CO}$$

where:

H = hourly potential to emit;

P = 468 bhp [internal combustion engine maximum rated output power]; and

C = 3.0 grams/bhp-hr [manufacturer's CO emission factor].

If required, compliance with the hourly CO emissions limit shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 10.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
P001 (Flare) burns biogas [rated energy value 650 Btu/cubic foot], which is primarily methane, from WWTP anaerobic sewage sludge digestion system -- gas-burning flare [Varec Biogas] 11,600 cubic feet/hr rated input capacity, 7.54 mmBtu/hr rated heat input; particulate emissions (PE), and emissions of carbon monoxide (CO) and nitrogen oxides (NOx) uncontrolled; all other emissions uncontrolled and de minimis per OAC rule 3745-15-05.	OAC rule 3745-31-05(A)(3)	1.50 lbs/hr & 6.57 TPY CO; and 0.500 lb/hr & 2.19 TPY NOx
	OAC rule 3745-21-08(B)	10% opacity from the stack, as a 6-minute average
	OAC 3745-23-06(B)	The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-21-08(B).
		See sections A.2 and B.1 below for other requirements of OAC rule 3745-31-05(A)(3).
		See A.2.b below.
		The emissions control requirements specified by this rule are less stringent than the emissions control requirements established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The hourly NOx and CO emissions limitations established pursuant to OAC rule 3745-31-05(A)(3) are greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emissions limitations.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed change such as equipment

modification or change in the fuels burned that would increase the potential to emit for any air pollutant.

- 2.b The permittee satisfies the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

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 the fuel specified by the application in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than the type specified by the application, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day, type and quantity of fuel when a fuel other than the type specified by the application was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods using applicable emission factors, as noted:
- a. Emission Limitation: 10% opacity, as a 6-minute average

Applicable Compliance Method: If required, compliance shall be determined by visible particulate emissions evaluations performed using the procedures specified in USEPA Method 9.

- b. Emission Limitation: 0.500 lb/hr & 2.19 TPY NO_x

Applicable Compliance Method: The permittee may demonstrate compliance with the above limitations based upon the following calculations of the potential to emit:

$$H = PN = 0.452 \text{ lb/hr NO}_x$$
$$(0.452 \text{ lb/hr NO}_x)(8760 \text{ hrs/yr})(1 \text{ ton}/2000 \text{ lbs}) = 1.98 \text{ TPY NO}_x$$

where:

H = hourly potential to emit;
P = 7.54 mmBtu/hr [rated heat input]; and
N = 0.06 lb/mmBtu [manufacturer's NO_x emission factor].

If required, compliance with the hourly NO_x emissions limit shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 7E or other appropriate USEPA-approved NO_x emissions testing method.

- c. Emission Limitation: 1.50 lbs/hr & 6.57 TPY CO

Applicable Compliance Method: The permittee may demonstrate compliance with the above limitations based upon the following calculations of the potential to emit:

$$H = PC = 1.39 \text{ lbs/hr CO}$$
$$(1.39 \text{ lbs/hr CO})(8760 \text{ hrs/yr})(1 \text{ ton}/2000 \text{ lbs}) = 6.01 \text{ TPY CO}$$

where:

H = hourly potential to emit;
P = 7.54 mmBtu/hr [rated heat input]; and
C = 0.185 lb/mmBtu [manufacturer's CO emission factor].

If required, compliance with the hourly CO emissions limit shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 10 or other appropriate USEPA-approved CO emissions testing method.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.