



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
50 West Town Street, Suite 700
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
GREENE COUNTY
Application No: 08-04922
Fac ID: 0829040591**

CERTIFIED MAIL

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

DATE: 4/15/2008

Pyrograf Products, Inc.
David Burton
154 West Xenia Ave
Cedarville, OH 45314-9529

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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. 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, OH 43215

Sincerely,

Michael W. Ahern 

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

CC: USEPA

RAPCA



Permit To Install
Terms and Conditions

Issue Date: 4/15/2008
Effective Date: 4/15/2008

FINAL PERMIT TO INSTALL 08-04922

Application Number: 08-04922
Facility ID: 0829040591
Permit Fee: **\$400**
Name of Facility: Pyrograf Products, Inc.
Person to Contact: David Burton
Address: 154 West Xenia Ave
Cedarville, OH 45314-9529

Location of proposed air contaminant source(s) [emissions unit(s)]:
154 West Xenia Ave.
Cedarville, Ohio

Description of proposed emissions unit(s):
Chapter 31 modification replacing PTI 08-04670 issued 3/22/05 to remove the flare and increase emissions.

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

Chris Korleski
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 (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.)

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	27.4
Methane	56.8

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.

Operations, Property, and/or Equipment - (P001) - Carbon Nanofiber Production Reactor A with Settling Chambers and Baghouse (Modification)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Carbon monoxide (CO) emissions from this emissions unit shall not exceed 3.9 lbs/hr and 13.7 tons per year (TPY). Methane emissions from this emissions unit shall not exceed 8.0 lbs/hr and 28.4 TPY.
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

2. Additional Terms and Conditions

- 2.a** The hourly emissions limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.
- 2.b** The 13.7 tons CO per year and 28.4 tons methane per year annual emissions limits were established to reflect the actual operations described in the PTI application for this emissions unit during a calendar year. This calendar year emissions limitation does not reflect the potential to emit for this emissions unit and it is not a practically enforceable restriction of the potential to emit to avoid any additional permitting requirements. Record keeping and reporting requirements are included in this permit to demonstrate compliance with this annual emissions limitation.

B. Operational Restrictions

1. Carbon nanofiber production shall not exceed 15,250 lbs/yr.
2. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the carbon nanofiber production for this emissions unit.
2. In order to maintain compliance with the applicable emission limitation contained in this permit, the acceptable range for the pressure drop across the baghouse shall be between 0.1 to 5 inches of water.
3. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

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

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

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

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

- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

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

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit:
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly 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.

2. The permittee shall submit annual reports which specify the total CO and methane emissions from this emissions unit in tons per year for the previous calendar year. This report shall be submitted by April 15 of each year.

Page 9 of 13

Pyrograf Products, Inc.

PTI Application: 08-04922

Issued: 4/15/2008

Facility ID: 0829040591

Emissions Unit ID: P001

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:
 - a. Emissions Limitation
CO emissions from this emissions unit shall not exceed 3.9 lbs/hr.

Applicable Compliance Method
Compliance is based on the maximum hourly CO generation rate.
 - b. Emissions Limitation
CO emissions from this emissions unit shall not exceed 13.7 TPY.

Applicable Compliance Method
Compliance shall be determined by multiplying the annual carbon nanofiber production by the appropriate CO emissions factor(s).
 - c. Emissions Limitation
Methane emissions from this emissions unit shall not exceed 8.0 lbs/hr.

Applicable Compliance Method
Compliance is based on the maximum hourly methane generation rate.
 - d. Emissions Limitation
Methane emissions from this emissions unit shall not exceed 28.4 TPY.

Applicable Compliance Method
Compliance shall be determined by multiplying the annual carbon nanofiber production by the appropriate methane emissions factor(s).
 - e. Emissions Limitation
Visible PE from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method
Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

F. Miscellaneous Requirements

1. The requirements of this permit supercede the requirements of PTI 08-04670 issued March 22, 2005 and represent a 34.4 TPY increase in methane emissions and a 27.4 TPY increase in CO emissions for this emissions unit.

Page 11 of 13

Pyrograf Products, Inc.

PTI Application: 08-04922

Issued: 4/15/2008

Facility ID: 0829040591

Emissions Unit ID: P001

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.

Operations, Property, and/or Equipment - (P002) - Carbon Nanofiber Production Reactor B with Settling Chambers and Baghouse (Modification)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Carbon monoxide (CO) emissions from this emissions unit shall not exceed 3.9 lbs/hr and 13.7 tons per year (TPY). Methane emissions from this emissions unit shall not exceed 8.0 lbs/hr and 28.4 TPY.
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

2. Additional Terms and Conditions

- 2.a** The hourly emissions limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.
- 2.b** The 13.7 tons CO per year and 28.4 tons methane per year annual emissions limits were established to reflect the actual operations described in the PTI application for this emissions unit during a calendar year. This calendar year emissions limitation does not reflect the potential to emit for this emissions unit and it is not a practically enforceable restriction of the potential to emit to avoid any additional permitting requirements. Record keeping and reporting requirements are included in this permit to demonstrate compliance with this annual emissions limitation.

B. Operational Restrictions

1. Carbon nanofiber production shall not exceed 15,250 lbs/yr.
2. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the carbon nanofiber production for this emissions unit.
2. In order to maintain compliance with the applicable emission limitation contained in this permit, the acceptable range for the pressure drop across the baghouse shall be between 0.1 to 5 inches of water.
3. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

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

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

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

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

- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

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

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit:
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly 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.

2. The permittee shall submit annual reports which specify the total CO and methane emissions from this emissions unit in tons per year for the previous calendar year. This report shall be submitted by April 15 of each year.

Pyrograf Products, Inc.

PTI Application: 08-04922

Issued: 4/15/2008

Facility ID: 0829040591

Emissions Unit ID: P002

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:
 - a. Emissions Limitation
CO emissions from this emissions unit shall not exceed 3.9 lbs/hr.

Applicable Compliance Method
Compliance is based on the maximum hourly CO generation rate.
 - b. Emissions Limitation
CO emissions from this emissions unit shall not exceed 13.7 TPY.

Applicable Compliance Method
Compliance shall be determined by multiplying the annual carbon nanofiber production by the appropriate CO emissions factor(s).
 - c. Emissions Limitation
Methane emissions from this emissions unit shall not exceed 8.0 lbs/hr.

Applicable Compliance Method
Compliance is based on the maximum hourly methane generation rate.
 - d. Emissions Limitation
Methane emissions from this emissions unit shall not exceed 28.4 TPY.

Applicable Compliance Method
Compliance shall be determined by multiplying the annual carbon nanofiber production by the appropriate methane emissions factor(s).
 - e. Emissions Limitation
Visible PE from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method
Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

F. Miscellaneous Requirements

1. The requirements of this permit supercede the requirements of PTI 08-04670 issued March 22, 2005 and represent a 34.4 TPY increase in methane emissions and a 27.4 TPY increase in CO emissions for this emissions unit.

Pyrograf Products, Inc.

PTI Application: 08-04922

Issued: 4/15/2008

Facility ID: 0829040591

Emissions Unit ID: P002

SIC CODE 3624 SCC CODE 3-19-999-99 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION Carbon Nanofiber Production Reactor A with Settling Chambers and Baghouse

DATE INSTALLED 1/1/2000

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide	Attainment			3.9 lbs/hr	13.7
Lead					
Other: Air Toxics					
Other	Methane			8.0 lbs/hr	28.4

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Compliance with OAC rules and allowables, record keeping, reporting and operation of the baghouse.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: N/A

Pyrograf Products, Inc.
PTI Application: 08-04922
Issued: 4/15/2008

Facility ID: 0829040591

SIC CODE 3624 SCC CODE 3-19-999-99 EMISSIONS UNIT ID P002

EMISSIONS UNIT DESCRIPTION Carbon Nanofiber Production Reactor B with Settling Chambers and Baghouse

DATE INSTALLED 1/1/2003

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide	Attainment			3.9 lbs/hr	13.7
Lead					
Other: Air Toxics					
Other	Methane			8.0 lbs/hr	28.4

APPLICABLE FEDERAL RULES:

NSPS? N/A NESHAP? N/A PSD? N/A OFFSET POLICY? N/A

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
 Compliance with OAC rules and allowables, record keeping, reporting and operation of the baghouse.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: N/A