Ohio Environmental Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

Certified Mail

6/28/2010

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Joe Gummel
TRUTEC INDUSTRIES, INC.
4700 Gateway Blvd.
Springfield, OH 45502

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0812100458
Permit Number: P0106218
Permit Type: Renewal
County: Clark

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director 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, made payable to "Ohio Treasurer Kevin Boyce," 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

If you have any questions, please contact Regional Air Pollution Control Agency at (937)225-4435 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern

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

Cc: RAPCA

Ohio Environmental Protection Agency

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
TRUTEC INDUSTRIES, INC.

Facility ID:	0812100458
Permit Number:	P0106218
Permit Type:	Renewal
Issued:	6/28/2010
Effective:	6/28/2010
Expiration:	6/28/2020

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install and Operate
for
TRUTEC INDUSTRIES, INC.

Table of Contents

Authorization

Facility ID: 0812100458
Application Number(s): A0038939, A0038963, A0038977, A0038985, A0038986, A0038987, A0038989, A0038990, A0039066, A0039068, A0039076, A0039352, A0039354, A0039356, A0039359, A0039361
Permit Number: P0106218
Permit Description: Renewal permit for 9 gas carburizing furnaces, Isonite nitriding process controlled by a series of 3 scrubbers and wastewater treatment process controlled by a scrubber.
Permit Type: Renewal
Permit Fee: $0.00
Issue Date: 6/28/2010
Effective Date: 6/28/2010
Expiration Date: 6/28/2020
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

TRUTEC INDUSTRIES, INC.
4700 Gateway Blvd.
Springfield, OH 45502

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

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

Regional Air Pollution Control Agency
117 South Main Street
Dayton, OH 45422-1280
(937)225-4435

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Authorization (continued)

Permit Number: P0106218
Permit Description: Renewal permit for 9 gas carburizing furnaces, Isonite nitriding process controlled by a series of 3 scrubbers and wastewater treatment process controlled by a scrubber.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	**P009**
Company Equipment ID:	Isonite Pots
Superseded Permit Number:	08-3863
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P015**
Company Equipment ID:	WWTP Sludge Remover
Superseded Permit Number:	08-04483
General Permit Category and Type:	Not Applicable

Group Name: Electric Carburizing Furnaces

Emissions Unit ID:	**P031**
Company Equipment ID:	Carburizing TKM #10
Superseded Permit Number:	08-04537
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P032**
Company Equipment ID:	Carburizing TKM #11
Superseded Permit Number:	08-04537
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P033**
Company Equipment ID:	Carburizing TKM #12
Superseded Permit Number:	08-04537
General Permit Category and Type:	Not Applicable

Group Name: Gas Carburizing Furnaces

Emissions Unit ID:	**P026**
Company Equipment ID:	Carburizing Process #7
Superseded Permit Number:	08-04588
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P027**
Company Equipment ID:	Carburizing Process #6
Superseded Permit Number:	08-04588
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P028**
Company Equipment ID:	Carburizing Furnace #8
Superseded Permit Number:	08-04588
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P029**
Company Equipment ID:	Carburizing Furnace #9
Superseded Permit Number:	08-04588
General Permit Category and Type:	Not Applicable

Group Name: gas carburizing furnace

Emissions Unit ID:	**P001**
Company Equipment ID:	Carburizing Process #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	Carburizing Process #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.
The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

  You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).
The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Regional Air Pollution Control Agency in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed

permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.
If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit 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.
You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting[1] a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.
You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.
Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated

[1] Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. 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).

   a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

      (1) None.

   b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

      (1) None.

2. On May 9, 2010 Trutec permanently ceased to use any of the halogenated solvents listed in 40 CFR 63.460(a). The vapor degreaser (L001) is no longer be subject to 40 CFR, Part 63, Subpart T, for Halogenated Solvent Cleaning and the MACT standard will no longer apply to Trutec. Therefore, the facility will no longer be subject to TV permit requirements.

C. Emissions Unit Terms and Conditions

1. P009, Isonite Pots

Operations, Property and/or Equipment Description:

Nitriding Process which includes 4 Isonite pots, 1 Melonite pot, water and oil quench and 2 wastewater holding tanks. The air emissions from this source are controlled by scrubbers Nos. 1, 2 and 3.

a) 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.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 08-3066	Particulate emission (PE) from this emissions unit shall not exceed 2.41 tons per year (TPY). Cyanide (CN) emissions from this emissions unit shall not exceed 0.6 lb/hour and 2.63 TPY. Ammonia (NH_3) emissions from this emissions unit shall not exceed 1.11 lbs/hour and 4.86 TPY. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(1) and 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20 percent opacity, as a six-minute average, except

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		as provided by rule.
	OAC rule 3745-17-11(B)(1)	PE from this emissions unit shall not exceed 0.551 lb/hr.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to wet scrubbers Nos. 1, 2 and 3 at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The pH of the scrubber liquor for packed-bed scrubber Nos. 1 and 2 shall be maintained at or above 12.

(2) The scrubber pressure drop for packed-bed scrubber Nos. 1 and 2 shall be continuously maintained at a value of not less than 2.5 inches of water at all times while the emissions unit is in operation.

(3) The pH of the scrubber liquor for packed-bed scrubber No. 3 shall be maintained at or below 4.0.

(4) The scrubber pressure drop for packed-bed scrubber No. 3 shall be continuously maintained at a value of not less than 1.5 inches of water at all times while the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid pH during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's pH on an hourly 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 any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date the corrective action was completed;

c. the date and time the deviation ended;

d. the total period of time (in minutes) during which there was a deviation;

e. the pressure drop and pH readings immediately after the corrective action was implemented; and

f. 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.

These range(s) and/or limit(s) for the pressure drop and pH are 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 or limit for the pressure drop or pH based upon information obtained during future emission tests that demonstrate compliance with the allowable PE, CN and NH_3 emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(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. 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.

e) Reporting Requirements

(1) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the wet scrubbers during the 12-month reporting period for this/these emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubbers or the liquid pH was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubbers;

c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the pressure drop and/or scrubber liquid pH into compliance with the appropriate range or limit contained in this permit, was determined to be necessary and was not taken; and

e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

(3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2):

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.

(4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.

f) Testing Requirements

(1) Compliance with the emission limitation(s) of b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

Visible (PE) from any/the stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

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

b. Emission Limitation

The PE from this emissions unit shall not exceed 0.551 lb/hour.

Applicable Compliance Method

When requested by the Ohio EPA, compliance shall be based upon the results of emission testing for all the stacks conducted pursuant to OAC rule 3745-17-03(B)(10).

c. Emission Limitation

The PE from this emissions unit shall not exceed 2.41 TPY.

Applicable Compliance Method

The 2.41 TPY limitation was developed by multiplying the 0.551 lb/hour limitation by 8760 hours, and then dividing by 2000 lbs. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

d. Emission Limitation

The CN emissions from this emissions unit shall not exceed 0.6 lb/hour.

Applicable Compliance Method

The permittee shall demonstrate compliance with this limitation based upon the results of emissions testing conducted in accordance with the methods and procedures specified in f)(2) of this permit.

e. Emission Limitation

The CN emissions from this emissions unit shall not exceed 2.63 TPY.

Applicable Compliance Method

The 2.63 TPY limitation was developed by multiplying the 0.6 lb/hour limitation by 8760 hours, and then dividing by 2000 lbs. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

f. Emission Limitation

The NH_3 emissions from this emissions unit shall not exceed 1.11 lbs/hour.

Applicable Compliance Method

The permittee shall demonstrate compliance with this limitation based upon the results of emissions testing conducted in accordance with the methods and procedures specified f)(2) of this permit.

g. Emission Limitation

The NH_3 emissions from this emissions unit shall not exceed 4.86 TPY.

Applicable Compliance Method

The 4.86 TPY limitation was developed by multiplying the 1.11 lb/hour limitation by 8760 hours, and then dividing by 2000 lbs. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

(2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within 6 months after issuance of the permit and approximately 5 years after permit issuance and within 6 months prior to permit expiration.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rates for CN and NH_3.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rates: for CN, CARB Test Method 426; for NH_3, USEPA Draft Methods 206 or Conditional Test Method (CTM) 027 or its equivalent.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 60 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) The permittee shall follow the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) submitted to the Regional Air Pollution Control Agency (RAPCA) November 24, 1998 for emissions unit P009 and the associated emissions control system, as may from time to time be amended with prior notification and approval from RAPCA.

(2) The terms and conditions in this permit to install and operate shall supersede all terms and conditions for emissions unit P009 in PTI 08-3066 issued December 15, 1999 and represents no increase in emissions.

2. P015, WWTP Sludge Remover

Operations, Property and/or Equipment Description:

Wastewater Treatment Process (sludge remover, NH_3 absorption tank, flash-off cooling tank, oil/water separator, tanks 1 and 2, holding tank and reactor, piping, pumps, appurtenances) controlled by scrubber #4.

a) 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.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 08-04483	Ammonia (NH_3) emissions from this emissions unit shall not exceed 4.69 lbs/hr and 5.13 tons per year (TPY).

(2) Additional Terms and Conditions

a. The 4.69 pounds per hour and 5.13 TPY NH_3 limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

c) Operational Restrictions

(1) The static pressure drop across the scrubber shall be continuously maintained at a value of not less than one inch of water at all times while the emissions unit is in operation.

(2) The pH of the scrubber liquor shall be maintained at less than 3 while the emission unit is in operation.

(3) The scrubber fresh water flow rate shall be continuously maintained at a value of not less than one (1) gallon per minute at all times, while the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid pH during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's pH. 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 any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date the corrective action was completed;

c. the date and time the deviation ended;

d. the total period of time (in minutes) during which there was a deviation;

e. the pressure drop and pH readings immediately after the corrective action was implemented; and

f. 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.

These range(s) and/or limit(s) for the pressure drop and pH are 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 or limit for the pressure drop or pH based upon information obtained during future emission tests that demonstrate compliance with the allowable NH_3 emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(2) The permit to install for this emissions unit P015 was evaluated based on the actual materials (typically coatings and cleanup materials) for emissions units P015, P019, P025, P030, P031, P032 and P033 and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approval model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarized the results of the modeling for the "worst-case" pollutant(s).

Pollutant: Ammonia

TLV(mg/m3): 17

Maximum Hourly Emission Rate (lbs/hr): 6.52

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 197

MAGLC(ug/m3): 415

Physical changes to or changes in the method of operation of the emissions unit after its installation of modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the Permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of the new materials, that would result in the emission of a compound with a lower Threshold Limit Value(TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

(3) The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

a. description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

e) Reporting Requirements

(1) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the wet scrubber during the 12-month reporting period for this/these emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber, the liquid flow rate, or the liquid pH was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in “a” or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” or “b” where prompt corrective action, that would bring the pressure drop, liquid flow rate, and/or scrubber liquid pH into compliance with the appropriate range or limit contained in this permit, was determined to be necessary and was not taken; and

e. each incident of deviation described in “a” or “b” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

The NH_3 emissions from this emissions unit shall not exceed 4.69 lbs/hour.

Applicable Compliance Method

Compliance shall be based upon the results of emissions testing conducted in accordance with the methods and procedures specified in f)(2) of this permit.

b. Emission Limitation

The ammonia emissions from this emissions unit shall not exceed 5.13 TPY.

Applicable Compliance Method

Compliance with the limitation above shall be determined by multiplying the results from f)(1)a. (lb of NH_3 / hr) by 2190 hours per year (maximum number of hours scrubber #4 can discharge per year), and divide by 2,000 lbs per ton.

(2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within 6 months after issuance of the permit and approximately 5 years after permit issuance and within 6 months prior to permit expiration.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rates and control efficiency for ammonia.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for ammonia, USEPA Draft Method 206 or Conditional Test Method (CTM) 027 or its equivalent.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 60 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) The terms and conditions in this permit to install and operate shall supersede all terms and conditions for emissions unit P015 in PTI 08-04483 issued July 13, 2004 and represents no increase in emissions.

3. Emissions Unit Group - Electric Carburizing Furnaces: P031, P032, P033,

EU ID	Operations, Property and/or Equipment Description
P031	Electric heated carburizing process furnace No. 10, with oil quench
P032	Electric heated carburizing process furnace No.11, with oil quench
P033	Electric heated carburizing process furnace No. 12, with oil quench

a) 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.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 08-04537	Particulate emissions (PE) from this emissions unit shall not exceed 0.04 lb/hr and 0.18 tons per year (TPY). Sulfur dioxide (SO_2) emissions from this emissions unit shall not exceed 0.05 lb/hr and 0.22 TPY. Organic compound (OC) emissions from this emissions unit shall not exceed 0.05 lb/hr and 0.22 TPY. Nitrogen oxide (NOx) emissions from this emissions unit shall not exceed 0.02 lb/hr and 0.10 TPY. Carbon monoxide (CO) emissions from this emissions unit shall not exceed 0.50

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		lb/hr and 2.18 TPY. Ammonia (NH_3) emissions from this emissions unit shall not exceed 0.04 lb/hr and 0.19 TPY. Visible PE from this emissions unit shall not exceed 5 percent opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
b.	OAC rule 3745-17-07(A)	The emission limitation based on this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The hourly PE, SO_2, OC, NOx, CO and NH_3 emissions limits 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 this short term emissions limitation.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in the burner to produce the flame curtain and stack flame for this emissions unit.

(2) The permittee shall burn only Nitriding Gas (NH_3), Propane and Endothermic Gas (CO, H2 and N2) in the Carburizing Chamber for this emission unit.

d) Monitoring and/or Recordkeeping Requirements

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

(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. 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 emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

(3) The permit to install for this emissions unit P031 was evaluated based on the actual materials (typically coatings and cleanup materials) for emissions units P031, P032 and P033 and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approval model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarized the results of the modeling for the "worst-case" pollutant(s).

Pollutant: Ammonia

TLV(mg/m3): 17

Maximum Hourly Emission Rate (lbs/hr): 6.60

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m3): 200.86

MAGLC(ug/m3): 415

Physical changes to or changes in the method of operation of the emissions unit after its installation of modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the Permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of the new materials, that would result in the emission of a compound with a lower Threshold Limit Value(TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

(4) The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

e) Reporting Requirements

(1) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(3):

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 eliminate the visible particulate emissions.

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitation</u>

PE shall not exceed 0.04 lb/hr

Applicable Compliance Method

Compliance with the hourly limitation above shall be determined by the following:

i. multiply the maximum hourly natural gas burning capacity of the emissions unit (20.7 cu ft/hour) by the emission factor of 7.6 lbs PE/mm cu ft as specified in AP-42 Chapter 1.4-2 (7/98).

ii. multiply the maximum amount of propane used (7 cu.ft./hour) by the AP-42 Chapter 1.5-1 (7/08) emission factor of 0.7 lbs PE/10^3, after converting to lbs/cu. ft. by multiplying 0.7 lbs PE / 10^3 gallons by 7.48 gals / cu. ft. to get 5.2^{-3} lb PE/cu. ft.

iii. Sum i. and ii. above to determine the pound of particulate emissions per hour.

If required, the permittee shall demonstrate compliance with the limitations above in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

b. Emission Limitation

PE shall not exceed 0.18 TPY.

Applicable Compliance Method

Compliance with the annual limitation above shall be determined by multiplying the results from f)(1)a.iii. (lb of PE/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

c. Emission Limitation

OC emissions shall not exceed 0.05 lb/hour.

Applicable Compliance Method

Compliance with the hourly limitation above shall be determined as follows:

i. multiply the maximum amount of natural gas used (20.7 cu. ft/hour) by AP-42 Section 1.4, table 1.4-2 (7/98) emission factor of 5.5 lbs OC/10^6 cu. ft.

ii. multiply the maximum amount of propane used (7 cu. ft./hour) by AP-42 Section 1.5 table 1.5-1 (7/08) emission factor of 1.0 lbs OC / 10^3 gallons, after converting to lbs/cu. ft. by multiplying 1.0 lbs OC / 10^3 gallons by 7.48 gals / cu. ft. to get 7.48^{-3} lb/cu. ft.

iii. Sum i. and ii. above to determine the pound of organic compounds per hour.

If required, the permittee shall demonstrate compliance in accordance with Method 25 of 40 CFR, Part 60, Appendix A.

d. Emission Limitation

OC emissions shall not exceed 0.22 TPY.

Applicable Compliance Method

Compliance with the annual limitation above shall be determined by multiplying the results from f)(1)c.iii. (lb of OC/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

e. Emission Limitation

NOx emissions shall not exceed 0.02 lb/hour.

Applicable Compliance Method

Compliance with the hourly limitation above shall be determined by multiplying the maximum field-measured exhaust flow rate (216,000 cu. ft/hour) by the facility-derived emission factor of 9.55E-8 lbs NOx/cu. ft.

If required, the permittee shall demonstrate compliance in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

f. Emission Limitation

NOx emissions shall not exceed 0.10 TPY.

Applicable Compliance Method

Compliance with the annual limitation above shall be determined by multiplying the results from f)(1)e. (lb of NOx / hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

g. Emission Limitation

CO emissions shall not exceed 0.50 lbs/hour.

Applicable Compliance Method

Compliance with the hourly limitation above shall be determined by multiplying the maximum field-measured exhaust flow rate (216,000 cu. ft/hour) by the facility-derived emission factor of 2.09E-6 lbs CO/cu. ft.

If required, the permittee shall demonstrate compliance in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A.

h. Emission Limitation

CO emissions shall not exceed 2.18 TPY.

Applicable Compliance Method

Compliance with the annual limitation above shall be determined by multiplying the results from f)(1)g. (lb of CO / hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

i. Emission Limitation

SO_2 emissions shall not exceed 0.05 lb/hour.

Applicable Compliance Method

Compliance with the hourly limitation above shall be determined by multiplying the maximum field-measured exhaust flow rate (216,000 cu. ft/hour) by the facility-derived emission factor of 2.16E-07 lbs of SO_2/cu. ft.

If required, the permittee shall demonstrate compliance in accordance with Method 6 or 6c of 40 CFR 60, Appendix A.

j. Emission Limitation

SO_2 emission shall not exceed 0.22 TPY.

Applicable Compliance Method

Compliance with the annual limitation above shall be determined by multiplying the results from f)(1)i. (lb of SO_2 / hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

k. Emission Limitation

NH_3 emissions shall not exceed 0.04 lb/ hour.

Applicable Compliance Method

Compliance with the hourly limitation above shall be determined by multiplying the maximum field-measured exhaust flow rate (216,000 cu. ft/hour) by the facility-derived emission factor of 1.81E-07 lbs of NH_3/cu. ft.

l. Emission Limitation

NH_3 emissions shall not exceed 0.19 TPY.

Applicable Compliance Method

Compliance with the annual limitation above shall be determined by multiplying the results from f)(1)k. (lb of NH_3/ hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

m. Emission Limitation

Visible particulate emissions from the stack serving this emissions unit shall not exceed 5 percent opacity as a six-minute average.

Applicable Compliance Method

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

(2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within 5 years after permit issuance.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rates for ammonia.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for ammonia, USEPA Draft Method 206 or Conditional Test Method (CTM) 027 or its equivalent.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. A single representative unit from the group of identical emissions units (P031, P032 and P033) may be tested.

Not later than 60 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) The terms and conditions of this permit to install and operate shall supersede all terms and conditions for emissions units P031, P032 and P033 in PTI 08-04537 issued 10/21/2003 and represents 0.27 TPY increase in PE, a 0.3 TPY increase in OC emissions for emissions unit P031, P032 and P033 combined due to revised AP-42 Chapter 1.5-1 (7/08) emission factors for LPG combustion.

4. Emissions Unit Group - Gas Carburizing Furnaces: P026, P027, P028, P029

EU ID	Operations, Property and/or Equipment Description
P026	No. 7 Natural Gas Carburizing process furnace with oil quench
P027	No. 6 Natural Gas Carburizing process furnace with oil quench
P028	No. 8 Natural Gas Carburizing process furnace with oil quench
P029	No. 9 Natural Gas Carburizing process furnace with oil quench

a) 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.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 08-04588	Particulate emissions (PE) from this emissions unit shall not exceed 0.02 lbs/hr and 0.09 ton per year (TPY). Sulfur dioxide (SO_2) emissions from this emissions unit shall not exceed 0.002 lb/hr and 0.008 TPY. Organic compound (OC) emissions from this emissions unit shall not exceed 0.04 lb/hr and 0.16 TPY. Nitrogen oxide (NOx) emissions from this emissions unit shall not exceed 1.21 lb/hr and 5.29 TPY. Carbon monoxide (CO) emissions from

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		this emissions unit shall not exceed 0.94 lb/hr and 4.14 TPY. Ammonia (NH_3) emissions from this emissions unit shall not exceed 0.78 lbs/hr and 3.40 TPY. Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-10(B)(1).
b.	OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1)	The emission limitation based on these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The hourly PE, SO_2, OC, NOx, CO and NH_3 emissions limits 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 short term emissions limitations.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in the burner to produce the flame curtain and stack flame for this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

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

(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. 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 eliminate the visible emissions.

(3) The permit to install for this emissions unit P028 was evaluated based on the actual materials (typically coatings and cleanup materials) for emissions units P015, P026, P027, P028 and P029 and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approval model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarized the results of the modeling for the "worst-case" pollutant(s).

Pollutant: Ammonia

TLV(mg/m3): 17

Maximum Hourly Emission Rate (lbs/hr): 9.63

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m3): 254

MAGLC(ug/m3): 415

Physical changes to or changes in the method of operation of the emissions unit after its installation of modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the Permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of the new materials, that would result in the emission of a compound with a lower Threshold Limit Value(TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

(4) The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

a. description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

e) Reporting Requirements

(1) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2):

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.

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. <u>Emission Limitation</u>

Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average.

Applicable Compliance Method

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

b. Emission Limitations

The PE from this emissions unit shall not exceed 0.02 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.0024 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.0206 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 0.7 lb particulates/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.0007 mm cu. ft/hour) by the facility-derived emission factor of 1.9 lbs particulates/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance with the limitations above in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

c. Emission Limitation

The PE from this emissions unit shall not exceed 0.09 TPY.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from section f)(1)b.iv. (lb of PE/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

d. Emission Limitation

The OC emissions from this emissions unit shall not exceed 0.04 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.0024 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.0206 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 1.0 lb OC/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.00055 mm cu. ft/hour) by the facility-derived emission factor of 5.5 lbs OC/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Method 25 of 40 CFR, Part 60, Appendix A.

e. Emission Limitation

The OC emissions from this emissions unit shall not exceed 0.16 TPY.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from f)(1)d.iv. (lb of OC/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

f. Emission Limitation

The NOx emissions from this emissions unit shall not exceed 1.21 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.0024 mm cu. ft/hour) by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.0206 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 13 lbs NOx/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.0007 mm cu. ft/hour) by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

g. Emission Limitation

The NOx emissions from this emissions unit shall not exceed 5.29 TPY.

Applicable Compliance Method

Compliance with this annual limitation above shall be determined by multiplying the results from f)(1)f.iv. (lb of NOx/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

h. Emission Limitation

The CO emissions from this emissions unit shall not exceed 0.94 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.0024 mm cu. ft/hour) by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.0206 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 7.5 lb CO/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.0007 mm cu. ft/hour) by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A.

i. Emission Limitation

The CO emissions from this emissions unit shall not exceed 4.14 TPY.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from f)(1)h.iv. (lb of CO/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

j. Emission Limitation

The NH_3 emissions from this emissions unit shall not exceed 0.78 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined by multiplying the maximum hourly ammonia usage rate (17 cu.ft/hr) by the facility derived emission factor of 0.0456 lbs NH_3/cu.ft.

When requested, the permittee shall demonstrate compliance in accordance with U.S. EPA Draft Method 206 or Conditional Test Method (CTM) 027 or its equivalent.

k. Emission Limitation

The NH_3 emissions from this emissions unit shall not exceed 3.40 TPY.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from section f)(1)j. (lb of NH_3/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

l. Emission Limitation

The SO_2 emissions from this emissions unit shall not exceed 0.002 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.0024 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 2/98) emission factor of 0.6 lb SO_2/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.0206 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 0.1 lb $SO_2/10^3$ gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.0007 mm cu. ft/hour) by the facility-derived emission factor of 0 lb SO_2/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Method 6 of 40 CFR, Part 60, Appendix A.

m. Emission Limitation

The SO_2 emissions from this emissions unit shall not exceed 0.008 ton/year.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from f)(1)l.iv. (lb of SO_2/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

The permittee shall use formulation data provided by the manufacturer or USEPA Method 24 to determine the organic composition of each liquid organic material employed in this emissions unit.

(2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within 5 years after permit issuance.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rates for ammonia.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for ammonia, USEPA Draft Method 206 or Conditional Test Method (CTM) 027 or its equivalent.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. A single representative unit from the group of identical emissions units (P026, P027, P028 and P029) may be tested.

Not later than 60 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) The terms and conditions in this permit to install and operate shall supersede all terms and conditions for emissions units P026, P027, P028 and P029 in PTI 08-04588 issued April 27, 2004 and represents a 0.12 TPY increase in PE, a 0.16 TPY increase in OC, a 0.4 TPY decrease in NOx emissions and a 2.0 TPY increase in CO emissions for emissions units P026, P027, P028 and P029 combined due to revised AP-42 Chapter 1.5-1 (7/08) emission factors for LPG combustion.

5. Emissions Unit Group - gas carburizing furnace: P001, P004,

EU ID	Operations, Property and/or Equipment Description
P001	Natural Gas Carburizing Process #1 with Oil Quench
P004	Natural Gas Carburizing Process #4 with Oil Quench

a) 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.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 08-03066	Particulate emissions (PE) from this emissions unit shall not exceed 0.002 lb/hr and 0.01 tons per year (TPY). Nitrogen oxide (NOx) emissions from this emissions unit shall not exceed 0.63 lb/hr and 2.76 TPY. Carbon monoxide (CO) emissions from this emissions unit shall not exceed 0.53 lb/hr and 2.31TPY. Ammonia (NH_3) emissions from this emissions unit shall not exceed 0.50 lb/hr and 2.18 TPY. Sulfur dioxide (SO_2) emissions from this emissions unit shall not exceed 0.0004 lb/hr and 0.002 TPY.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Organic compound (OC) emissions from this emissions unit shall not exceed 0.01 lbs/hr and 0.04 TPY. Visible PE from this emissions unit shall not exceed 5 percent opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-17-10(B)(1).
b.	OAC rule 3745-17-07(A) OAC rule 3745-17-10(B)(1)	The emission limitation based on these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The hourly PE, NOx, CO, SO_2, OC and NH_3 emissions limits 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 short term emissions limitations.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in the burner to produce the flame curtain and stack flame for this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas in the burner the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(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. 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 emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

(1) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term d)(2):

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 eliminate the visible particulate emissions.

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average.

Applicable Compliance Method

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

b. Emission Limitations

PE from this emissions unit shall not exceed 0.01 lb/hr.

Applicable Compliance Method

Compliance with the hourly limitation above may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000741 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.00067 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 0.7 lb particulates/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.00055 mm cu. ft/hour) by the facility-derived emission factor of 1.9 lbs particulates/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

If required, the permittee shall demonstrate compliance with the limitations above in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

c. Emission Limitations

0.020 lb particulates/mmBtu actual heat input

Applicable Compliance Method

Compliance with the 0.020 lb/mmBtu limitation may be determined by dividing the result from f)(1)b.iv. by the maximum hourly heat input capacity of this emissions unit (0.71 mmBtu/hour).

If required, the permittee shall demonstrate compliance with the limitations above in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

d. Emission Limitation

PE emissions from this emissions unit shall not exceed 0.03 TPY.

Applicable Compliance Method

Compliance with this annual limitation above shall be determined by multiplying the results from f)(1)b.iv. (lb of PE/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

e. Emission Limitation

NOx emissions from this emissions unit shall not exceed 0.63 lb/hr

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000741 mm cu. ft/hour) by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.00067 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 13 lbs NOx/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.00055 mm cu. ft/hour) by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

f. Emission Limitation

The NOx emissions from this emissions unit shall not exceed 2.76 TPY.

Applicable Compliance Method

Compliance with this annual limitation above shall be determined by multiplying the results from f)(1)e.iv. (lb of NOx/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

g. Emission Limitation

The CO emissions from this emissions unit shall not exceed 0.53 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000741 mm cu. ft/hour) by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.00067 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 7.5 lb CO/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.00055 mm cu. ft/hour) by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A.

h. Emission Limitation

The CO emissions from this emissions unit shall not exceed 2.31 TPY.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from f)(1)g.iv. (lb of CO/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

i. Emission Limitation

The OC emissions from this emissions unit shall not exceed 0.01 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000741 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.00067 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 1.0 lb OC/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.00055 mm cu. ft/hour) by the facility-derived emission factor of 5.5 lbs OC/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Method 25 of 40 CFR, Part 60, Appendix A.

j. Emission Limitation

The OC emissions from this emissions unit shall not exceed 0.04 TPY.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from f)(1)i.iv. (lb of OC/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

k. Emission Limitation

The SO_2 emissions from this emissions unit shall not exceed 0.0004 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000741 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 2/98) emission factor of 0.6 lb SO_2/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.00067 10^3 gallon/hour) by the AP-42, Table 1.5-1 (revised 7/08) emission factor of 0.16 lb SO_2/10^3 gallons;

iii. multiply the maximum hourly atmospheric gas usage rate (0.00055 mm cu. ft/hour) by the facility-derived emission factor of 0 lb SO_2/mm cu. ft; and

iv. sum the results of i, ii, and iii above.

When requested, the permittee shall demonstrate compliance in accordance with Method 6 of 40 CFR, Part 60, Appendix A.

l. Emission Limitation

The SO_2 emissions from this emissions unit shall not exceed 0.002 ton/year.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from f)(1)k.iv. (lb of SO_2/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

The permittee shall use formulation data provided by the manufacturer or USEPA Method 24 to determine the organic composition of each liquid organic material employed in this emissions unit.

m. Emission Limitation

The NH_3 emissions from this emissions unit shall not exceed 0.48 lb/hr.

Applicable Compliance Method

Compliance with this hourly limitation may be determined by multiplying the maximum hourly ammonia usage rate (10.5 cu.ft/hr) by the facility derived emission factor of 0.0456 lbs NH_3/cu.ft.

When requested, the permittee shall demonstrate compliance in accordance with U.S. EPA Draft Method 206 or Conditional Test Method (CTM) 027 or its equivalent.

n. Emission Limitation

The NH_3 emissions from this emissions unit shall not exceed 2.10 TPY.

Applicable Compliance Method

Compliance with this annual limitation shall be determined by multiplying the results from section f)(1)m. (lb of NH_3/hr) by 8760 hours per year, and dividing by 2,000 lbs per ton.

(2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within 5 years after permit issuance.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rates for ammonia.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for ammonia, USEPA Draft Method 206 or Conditional Test Method (CTM) 027 or its equivalent.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. A single representative unit from the group of identical emissions units (P001 and P004) may be tested.

Not later than 60 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) The terms and conditions in this permit to install and operate shall supersede all terms and conditions for emissions units P001 and P004 in PTI 08-3066 issued December 15, 1999 and represents a 0.34 TPY decrease in NOx emissions and a 0.06 increase in CO emissions for emissions units P001 and P004 combined due to revised AP-42 Chapter 1.5-1 (7/08) emission factors for LPG combustion.