State of Ohio Environmental Protection Agency

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

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

03/31/00

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

08-12-10-0458
TRUTEC INDUSTRIES, INC.
Greg Smith
4700 Gateway Blvd.
Springfield, OH 45502

Dear Greg Smith:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by RAPCA within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions or comments concerning this draft Title V permit, please contact RAPCA.

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA (electronic)
Jim Orlemann, DAPC Engineering
Michael Ahern, DAPC PMU
RAPCA
Indiana

Ohio EPA
State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 03/31/00

Effective Date:

Expiration Date:

The duration of this permit will be five years.

This document constitutes issuance to:

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

of a Title V permit for Facility ID: 08-12-10-0458

Emissions Unit ID (Company ID)/
Emissions Unit Activity Description:
L001 (Carburizing Vapor Degreaser)
TCE Vapor Degreaser (Carburizing Area)

L002 (Tufftride Vapor Degreaser)
TCE Vapor Degreaser (Tufftride Area)

L003 (Carburizing Vapor Degreaser)
TCE Vapor Degreaser

P001 (Carburizing Process #1)
Carburizing Process #1 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z004 are included in the total emissions from this process.

P002 (Carburizing Process #2)
Carburizing Process #2 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z005 are included in the total emissions from this process.

P003 (Carburizing Process #3)
Carburizing Furnace #3 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z006 are included in the total emissions from this process.

P004 (Carburizing Process #4)
Carburizing Process #4 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z007 are included in the total emissions from this process.

P009 (Tufftride Pots)
Nitriding Process- 4 tufftride pots, water and oil quench, wash booth, and 2 wastewater holding tanks. Emissions from Z011 are included in the total emissions from this process.

P016 (Goff Barrel Blast Unit #1)
Goff Barrel Blast Unit #1

P017 (Goff Spinner Hanger)
Goff Spinner Hanger, Model 4860

P018 (Wheelabrator Spinner Hanger)
Wheelabrator Spinner Hanger, Model WS-210S

P019 (Ammonia Gas Nitriding Process #1)
Ammonia Gas Nitriding Process #1- Emissions from Z012 are included in the total emissions from this process.

P020 (Goff Barrel Blast Unit #2)
Goff Barrel Blast Unit #2

P024 (Carburizing Process #5)
Carburizing Process #5 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z008 are included in the total emissions from this process.

P025 (Ammonia Gas Nitriding Process #2)
Ammonia Gas Nitriding Furnace #2- Emissions from Z013 are included in the total emissions from this process.

P026 (Carburizing Process #7)
Carburizing Process #7 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z015 are included in the total emissons from this process.

P027 (Carburizing Process #6)
Carburizing Process #6 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z014 are included in the total emissions from this process.

P028 (Carburizing Furnace #8)
Carburizing Process #8 with Oil Quench.

P029 (Carburizing Furnace #9)
Carburizing Process #9 with Oil Quench. Electric burner indirectly heats the metal parts.

P030 (Ammonia Gas Nitriding Process #3)
Ammonia Gas Nitriding Furnace #3- Emissions from Z022 are included in the total emissions from this process.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

RAPCA
451 West Third Street
PO Box 972
Dayton, OH 45422
(937) 225-4435

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

   i. The date, place (as defined in the permit), and time of sampling or measurements.
   ii. The date(s) analyses were performed.
   iii. The company or entity that performed the analyses.
   iv. The analytical techniques or methods used.
   v. The results of such analyses.
   vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

   i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
   ii. Quarterly written reports of (i) any deviations from federally enforceable <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.6 below if no deviations occurred during the quarter.
   iii. Written reports, which identify any deviations from the federally enforceable <u>monitoring</u>, <u>recordkeeping</u>, <u>and reporting requirements</u> contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
   iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"); and, pursuant to 40 CFR 68.215(a), the permittee shall submit either of the following:

a. a compliance plan for meeting the requirements of 40 CFR Part 68 by the date specified in 40 CFR 68.10(a) and OAC 3745-104-05(A); or

b. as part of the compliance certification submitted under 40 CFR 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 CFR Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

   i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
   ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
   iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
   iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be

submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency and to the Administrator of U.S. EPA in the following manner in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.
(b) The permittee's current compliance status.
(c) Whether compliance was continuous or intermittent.
(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

16. Off Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;

b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

18. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

B. State Only Enforceable Section

1. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

4. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

5. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

B001 Boiler No. 1
B002 Boiler No. 2
B003 Emergency generator
P006 Endothermic gas generator
P007 Carburizing tempering furnace
P008 Tufftride preheat furnaces
P015 Wastewater treatment plant sludge remover
T003 Wastewater treatment plant flash-off cooling tank
Z001 Roadways
Z009 Carburizing tempering furnace
Z010 Tufftride preheat furnaces
Z016 Endothermic gas generator
Z017 Carburizing tempering furnace
Z018 Carburizing tempering furnace
Z019 Carburizing tempering furnace
Z020 Carburizing tempering furnace

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitation and/or control requirements contained within the Permit to Install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Vapor Degreaser (L001)

Activity Description: TCE Vapor Degreaser (Carburizing Area)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
trichloroethylene open top batch vapor degreaser no.1 with 1.0 freeboard ratio, refrigeration device, and reduced room draft	40 CFR Part 63 Subpart T	See Sections A.I.2 and A.II.
	OAC rule 3745-31-05(A)(3) PTI 08-2356	3.7 tons/month and 44.4 TPY volatile organic compounds (VOC)

2. Additional Terms and Conditions

2.a The permittee shall maintain a freeboard with a freeboard ratio equal to 1.0 or greater.

2.b The permittee shall ensure that the chilled air blanket temperature (in degrees Fahrenheit), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.

2.c The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

i. The solvent cleaning machine shall be designed or operated to meet the following control equipment or technique requirements: Use of reduced room draft that ensures that the flow or movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time measured using the procedure described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

ii. The solvent cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.

iii. The solvent cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

iv. The solvent cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

v. The solvent cleaning machine shall have a primary condenser.

II. Operational Restrictions

1. The permittee shall meet all of the following required work and operational practices:

a. Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques: The permittee shall employ a reduced room draft that ensures that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall also establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

b. The parts baskets or the parts being cleaned in solvent cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meter per minute (3 feet per minute) or less.

c. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).

d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).

e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.

f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.

g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

h. When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.

i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.

j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).

k. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but must not allow liquid solvent to drain from the container.

l. Sponges, fabric, wood, and paper products shall not be cleaned.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:

a. Measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine as follows:

i. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.

ii. Orient a velometer in the direction of the wind current at each of the four corners of the machine.

iii. Record the reading for each corner.

iv. Average the values obtained at each corner and record the average wind speed.

b. Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

3. The permittee shall monitor the hoist speed as described below:

a. The permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).

b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.

c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.

d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

4. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:

a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.

b. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.

c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.

5. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:

a. The results of control device monitoring required in this section of the permit.

b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

c. Estimates of annual consumption of trichloroethylene for the solvent cleaning machine.

III. Monitoring and/or Record Keeping Requirements (continued)

6. The permittee shall record the following information each month for the vapor degreaser:

a. The amount of trichloroethylene solvent added to the tank, in gallons.

b. The total amount of waste solvents removed for disposal, in gallons.

c. The trichloroethylene content of the waste removed, in percent by volume.

d. The amount of trichloroethylene solvent sent off site for disposal (b x c), in gallons.

e. The total VOC emissions, in tons, calculated as follows:

E = ((Ls - Lw) x D)/2000

where:

E = volatile organic compound emission rate (tons/month)

Ls = liquid volume of trichloroethylene solvent employed each month (gallons)

Lw = liquid volume of trichloroethylene solvent sent off site as waste (gallons)

D = density of trichloroethylene solvent (pounds/gallon)

IV. Reporting Requirements

1. The permittee shall submit an initial notification report as soon as practicable before the construction or reconstruction is planned to commence. This report shall include all of the information required in 40 CFR 63.5 (d) (1) of subpart A, with the following revisions and additions:

a. The report shall include a brief description of the solvent cleaning machine type (batch vapor, batch cold, vapor in-line, or cold in-line), solvent/air interface area, and existing controls.

b. The report shall include the anticipated compliance approach for the solvent cleaning machine.

c. The report shall include an estimate of the annual trichloroethylene consumption for the solvent cleaning machine in lieu of the requirements of 40 CFR 63.5 (d) (1) (ii) (H), subpart A.

2. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:

a. A signed statement from the facility owner or their designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required pursuant to 40 CFR 63.463 (d) (10)."

b. An estimate of solvent consumption during the reporting period.

IV. Reporting Requirements (continued)

3. The permittee shall submit an exceedance report on a semiannual basis. If any of the following exceedances occur, the permittee shall begin to submit these exceedance reports on a quarterly basis until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency):

a. If no operation conditions were established under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute).

b. If the flow of air across the top of the freeboard area of the cleaning machine or within the solvent cleaning machine enclosure exceeded 15.2 meters/minute and no correction was made within 15 days of detection.

c. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection.

Each exceedance report shall be delivered or post marked by the 30th day following the reporting period.

Each exceedance report shall contain the following:

a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

b. If no exceedance has occurred, a statement to that effect shall be submitted.

4. The permittee may receive approval of less frequent reporting if all the following conditions are met:

a. The emissions unit has demonstrated a full year of compliance without an exceedance.

b. The permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions.

c. The Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions.

5. The permittee shall submit semiannual deviation (excursion) reports which identify any exceedances of the monthly VOC emission limitation of 3.7 tons. These reports shall be submitted by January 15 and July 15 of each year and shall cover the previous six calendar months.

6. The permittee shall submit annual reports which summarize the actual annual VOC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation -
3.7 tons/month VOC

Applicable Compliance Method -
Compliance shall be determined in accordance with the record keeping required in Section A.III.6 of this permit.

V. Testing Requirements (continued)

1.b Emission Limitation -
44.4 TPY VOC

Applicable Compliance Method -
Compliance with the annual limitation shall be based upon the record keeping in Section A.III.6 of this permit and shall be the summation of the 12 monthly VOC emissions for the calendar year.

2. The permittee shall conduct an initial test of the wind speed and of room parameters using the following procedures:

a. Determine and measure the maximum wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine by slowly rotating a velometer or similar device until the maximum speed is located.

b. Orient the velometer or similar device in the direction of the wind current at each of the four corners of the machine and perform the following:

i. Record the reading for each corner.

ii. Average the values obtained at each corner and record the average wind speed.

V. Testing Requirements (continued)

3. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:

a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

PTEi = Hi X Wi X SAIi

Where:

PTEi = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

Hi = hours of operation for solvent cleaning machine i (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

Wi = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAIi= solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

SAI = 2.2 * (Vol)^0.6

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tufftride Vapor Degreaser (L002)

Activity Description: TCE Vapor Degreaser (Tufftride Area)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
trichloroethylene open top batch vapor degreaser with 1.0 freeboard ratio, refrigeration device, and reduced room draft	40 CFR Part 63 Subpart T	See Sections A.I.2 and A.II.
	OAC rule 3745-31-05(A)(3) PTI 08-2356	2.3 tons/month and 27.9 TPY volatile organic compounds (VOC)

2. Additional Terms and Conditions

2.a The permittee shall maintain a freeboard with a freeboard ratio equal to 1.0 or greater.

2.b The permittee shall ensure that the chilled air blanket temperature (in degrees Fahrenheit), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.

2.c The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

i. The solvent cleaning machine shall be designed or operated to meet the following control equipment or technique requirements: Use of reduced room draft that ensures that the flow or movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time measured using the procedure described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

ii. The solvent cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.

iii. The solvent cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

iv. The solvent cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

v. The solvent cleaning machine shall have a primary condenser.

II. Operational Restrictions

1. The permittee shall meet all of the following required work and operational practices:

a. Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques: The permittee shall employ a reduced room draft that ensures that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall also establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

b. The parts baskets or the parts being cleaned in solvent cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meter per minute (3 feet per minute) or less.

c. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).

d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).

e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.

f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.

g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

h. When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.

i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.

j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).

k. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but must not allow liquid solvent to drain from the container.

l. Sponges, fabric, wood, and paper products shall not be cleaned.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:

a. Measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine as follows:

i. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.

ii. Orient a velometer in the direction of the wind current at each of the four corners of the machine.

iii. Record the reading for each corner.

iv. Average the values obtained at each corner and record the average wind speed.

b. Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

3. The permittee shall monitor the hoist speed as described below:

a. The permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).

b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.

c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.

d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

4. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:

a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.

b. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.

c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.

5. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:

a. The results of control device monitoring required in this section of the permit.

b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

c. Estimates of annual consumption of trichloroethylene for the solvent cleaning machine.

III. Monitoring and/or Record Keeping Requirements (continued)

6. The permittee shall record the following information each month for the vapor degreaser:

a. The amount of trichloroethylene solvent added to the tank, in gallons.

b. The total amount of waste solvents removed for disposal, in gallons.

c. The trichloroethylene content of the waste removed, in percent by volume.

d. The amount of trichloroethylene solvent sent off site for disposal (b x c), in gallons.

e. The total VOC emissions, in tons, calculated as follows:

E = ((Ls - Lw) x D)/2000

where:

E = volatile organic compound emission rate (tons/month)

Ls = liquid volume of trichloroethylene solvent employed each month (gallons)

Lw = liquid volume of trichloroethylene solvent sent off site as waste (gallons)

D = density of trichloroethylene solvent (pounds/gallon)

IV. Reporting Requirements

1. The permittee shall submit an initial notification report as soon as practicable before the construction or reconstruction is planned to commence. This report shall include all of the information required in 40 CFR 63.5 (d) (1) of subpart A, with the following revisions and additions:

a. The report shall include a brief description of the solvent cleaning machine type (batch vapor, batch cold, vapor in-line, or cold in-line), solvent/air interface area, and existing controls.

b. The report shall include the anticipated compliance approach for the solvent cleaning machine.

c. The report shall include an estimate of the annual trichloroethylene consumption for the solvent cleaning machine in lieu of the requirements of 40 CFR 63.5 (d) (1) (ii) (H), subpart A.

2. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:

a. A signed statement from the facility owner or their designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required pursuant to 40 CFR 63.463 (d) (10)."

b. An estimate of solvent consumption during the reporting period.

IV. Reporting Requirements (continued)

3. The permittee shall submit an exceedance report on a semiannual basis. If any of the following exceedances occur, the permittee shall begin to submit these exceedance reports on a quarterly basis until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency):

a. If no operation conditions were established under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute).

b. If the flow of air across the top of the freeboard area of the cleaning machine or within the solvent cleaning machine enclosure exceeded 15.2 meters/minute and no correction was made within 15 days of detection.

c. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection.

Each exceedance report shall be delivered or post marked by the 30th day following the reporting period.

Each exceedance report shall contain the following:

a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

b. If no exceedance has occurred, a statement to that effect shall be submitted.

4. The permittee may receive approval of less frequent reporting if all the following conditions are met:

a. The emissions unit has demonstrated a full year of compliance without an exceedance.

b. The permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions.

c. The Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions.

5. The permittee shall submit semiannual deviation (excursion) reports which identify any exceedances of the monthly VOC emission limitation of 2.3 tons. These reports shall be submitted by January 15 and July 15 of each year and shall cover the previous six calendar months.

6. The permittee shall submit annual reports which summarize the actual annual VOC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation -
2.3 tons/month VOC

Applicable Compliance Method -
Compliance shall be determined in accordance with the record keeping required in Section A.III.6 of this permit.

V. Testing Requirements (continued)

1.b Emission Limitation -
27.9 TPY VOC

Applicable Compliance Method -
Compliance with the annual limitation shall be based upon the record keeping in Section A.III.6 of this permit and shall be the summation of the 12 monthly VOC emissions for the calendar year.

2. The permittee shall conduct an initial test of the wind speed and of room parameters using the following procedures:

a. Determine and measure the maximum wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine by slowly rotating a velometer or similar device until the maximum speed is located.

b. Orient the velometer or similar device in the direction of the wind current at each of the four corners of the machine and perform the following:

i. Record the reading for each corner.

ii. Average the values obtained at each corner and record the average wind speed.

V. Testing Requirements (continued)

3. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:

a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

PTEi = Hi X Wi X SAIi

Where:

PTEi = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

Hi = hours of operation for solvent cleaning machine i (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

Wi = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAIi= solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

SAI = 2.2 * (Vol)^0.6

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Vapor Degreaser (L003)

Activity Description: TCE Vapor Degreaser

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
trichloroethylene open top batch vapor degreaser no. 2 with refrigeration device, and reduced room draft	40 CFR Part 63 Subpart T	See Sections A.I.2 and A.II.
	OAC rule 3745-31-05(A)(3) PTI 08-2356	1.86 tons/month and 22.27 TPY volatile organic compounds (VOC)

2. Additional Terms and Conditions

2.a The permittee shall maintain a freeboard with a freeboard ratio equal to 1.0 or greater.

2.b The permittee shall ensure that the chilled air blanket temperature (in degrees Fahrenheit), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.

2.c The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

i. The solvent cleaning machine shall be designed or operated to meet the following control equipment or technique requirements: Use of reduced room draft that ensures that the flow or movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time measured using the procedure described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

ii. The solvent cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.

iii. The solvent cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

iv. The solvent cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

v. The solvent cleaning machine shall have a primary condenser.

II. Operational Restrictions

1. The permittee shall meet all of the following required work and operational practices:

a. Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques: The permittee shall employ a reduced room draft that ensures that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall also establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

b. The parts baskets or the parts being cleaned in solvent cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meter per minute (3 feet per minute) or less.

c. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).

d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).

e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.

f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.

g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

h. When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.

i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.

j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).

k. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but must not allow liquid solvent to drain from the container.

l. Sponges, fabric, wood, and paper products shall not be cleaned.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:

a. Measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine as follows:

i. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.

ii. Orient a velometer in the direction of the wind current at each of the four corners of the machine.

iii. Record the reading for each corner.

iv. Average the values obtained at each corner and record the average wind speed.

b. Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

3. The permittee shall monitor the hoist speed as described below:

a. The permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).

b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.

c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.

d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

4. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:

a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.

b. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.

c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.

5. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:

a. The results of control device monitoring required in this section of the permit.

b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

c. Estimates of annual consumption of trichloroethylene for the solvent cleaning machine.

III. Monitoring and/or Record Keeping Requirements (continued)

6. The permittee shall record the following information each month for the vapor degreaser:

a. The amount of trichloroethylene solvent added to the tank, in gallons.

b. The total amount of waste solvents removed for disposal, in gallons.

c. The trichloroethylene content of the waste removed, in percent by volume.

d. The amount of trichloroethylene solvent sent off site for disposal (b x c), in gallons.

e. The total VOC emissions, in tons, calculated as follows:

E = ((Ls - Lw) x D)/2000

where:

E = volatile organic compound emission rate (tons/month)

Ls = liquid volume of trichloroethylene solvent employed each month (gallons)

Lw = liquid volume of trichloroethylene solvent sent off site as waste (gallons)

D = density of trichloroethylene solvent (pounds/gallon)

IV. Reporting Requirements

1. The permittee shall submit an initial notification report as soon as practicable before the construction or reconstruction is planned to commence. This report shall include all of the information required in 40 CFR 63.5 (d) (1) of subpart A, with the following revisions and additions:

a. The report shall include a brief description of the solvent cleaning machine type (batch vapor, batch cold, vapor in-line, or cold in-line), solvent/air interface area, and existing controls.

b. The report shall include the anticipated compliance approach for the solvent cleaning machine.

c. The report shall include an estimate of the annual trichloroethylene consumption for the solvent cleaning machine in lieu of the requirements of 40 CFR 63.5 (d) (1) (ii) (H), subpart A.

2. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:

a. A signed statement from the facility owner or their designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required pursuant to 40 CFR 63.463 (d) (10)."

b. An estimate of solvent consumption during the reporting period.

IV. Reporting Requirements (continued)

3. The permittee shall submit an exceedance report on a semiannual basis. If any of the following exceedances occur, the permittee shall begin to submit these exceedance reports on a quarterly basis until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency):

a. If no operation conditions were established under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute).

b. If the flow of air across the top of the freeboard area of the cleaning machine or within the solvent cleaning machine enclosure exceeded 15.2 meters/minute and no correction was made within 15 days of detection.

c. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection.

Each exceedance report shall be delivered or post marked by the 30th day following the reporting period.

Each exceedance report shall contain the following:

a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

b. If no exceedance has occurred, a statement to that effect shall be submitted.

4. The permittee may receive approval of less frequent reporting if all the following conditions are met:

a. The emissions unit has demonstrated a full year of compliance without an exceedance.

b. The permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions.

c. The Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions.

5. The permittee shall submit semiannual deviation (excursion) reports which identify any exceedances of the monthly VOC emission limitation of 1.86 tons. These reports shall be submitted by January 15 and July 15 of each year and shall cover the previous six calendar months.

6. The permittee shall submit annual reports which summarize the actual annual VOC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation -
1.86 tons/month VOC

Applicable Compliance Method -
Compliance shall be determined in accordance with the record keeping required in Section A.III.6 of this permit.

V. Testing Requirements (continued)

1.b Emission Limitation -
22.27 TPY VOC

Applicable Compliance Method -
Compliance with the annual limitation shall be based upon the record keeping in Section A.III.6 of this permit and shall be the summation of the 12 monthly VOC emissions for the calendar year.

2. The permittee shall conduct an initial test of the wind speed and of room parameters using the following procedures:

a. Determine and measure the maximum wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine by slowly rotating a velometer or similar device until the maximum speed is located.

b. Orient the velometer or similar device in the direction of the wind current at each of the four corners of the machine and perform the following:

i. Record the reading for each corner.

ii. Average the values obtained at each corner and record the average wind speed.

V. Testing Requirements (continued)

3. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:

a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

PTEi = Hi X Wi X SAIi

Where:

PTEi = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

Hi = hours of operation for solvent cleaning machine i (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

Wi = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAIi= solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

SAI = 2.2 * (Vol)^0.6

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Process #1 (P001)

Activity Description: Carburizing Process #1 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z004 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.71 mmBtu/hour carburizing process furnace No. 1, with oil quench	OAC rule 3745-31-05(A)(3) PTI 08-3066	0.007 lb/hour and 0.03 TPY particulates; 0.2 lb/hour and 0.87 TPY organic compounds (OC); 0.67 lb/hour and 2.93 TPY nitrogen oxides (NOx); 0.52 lb/hour and 2.28 TPY carbon monoxide (CO); 0.5 lb/hour and 2.18 TPY ammonia Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-21-07(G)	None, see A.II.2.
	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

2.a The 0.007 lb/hour particulates, 0.2 lb/hour OC, 0.67 lb/hour NOx, and 0.52 lb/hour CO limits were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane in this emissions unit.

II. Operational Restrictions (continued)

2. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping 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 collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

3. The permittee shall maintain monthly records of the following information for this emissions unit:

a. The total amount of natural gas burned, in mm cu. ft.

b. The total amount of propane burned, in gallons.

c. The total amount of atmospheric gas employed, in mm cu. ft.

d. The total amount of ammonia employed, in cubic feet.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the cause of the visible emissions;
c. the total duration of any visible emission incident; and
d. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

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

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation -
5% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

1.b Emission Limitations -
0.007 lb/hour particulates
0.020 lb particulates/mmBtu actual heat input

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

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 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.

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

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

1.c Emission Limitation -
0.03 TPY particulates

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

V. Testing Requirements (continued)

1.d Emission Limitation -
0.2 lb/hour OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 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.

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

1.e Emission Limitation -
0.87 TPY OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

1.f Emission Limitation -
0.67 lb/hour NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.g Emission Limitation -
2.93 TPY NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

1.h Emission Limitation -
0.52 lb/hour CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lb CO/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation -
2.28 TPY CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lbs CO/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

V. Testing Requirements (continued)

1.j Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance based upon emission testing conducted in accordance with the methods and procedures specified in section A.V.3 of this permit.

1.k Emission Limitation -
2.18 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.3 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft.), and then dividing by 2,000.

2. 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.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Process #2 (P002)

Activity Description: Carburizing Process #2 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z005 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.71 mmBtu/hour carburizing process furnace No. 2, with oil quench	OAC rule 3745-31-05(A)(3) PTI 08-3066	0.007 lb/hour and 0.03 TPY particulates; 0.2 lb/hour and 0.87 TPY organic compounds (OC); 0.67 lb/hour and 2.93 TPY nitrogen oxides (NOx); 0.52 lb/hour and 2.28 TPY carbon monoxide (CO); 0.5 lb/hour and 2.18 TPY ammonia Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-21-07(G)	None, see A.II.2.
	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

2.a The 0.007 lb/hour particulates, 0.2 lb/hour OC, 0.67 lb/hour NOx, and 0.52 lb/hour CO limits were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane in this emissions unit.

II. Operational Restrictions (continued)

2. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping 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 collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

3. The permittee shall maintain monthly records of the following information for this emissions unit:

a. The total amount of natural gas burned, in mm cu. ft.

b. The total amount of propane burned, in gallons.

c. The total amount of atmospheric gas employed, in mm cu. ft.

d. The total amount of ammonia employed, in cubic feet.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the cause of the visible emissions;
c. the total duration of any visible emission incident; and
d. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

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

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation -
5% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

1.b Emission Limitations -
0.007 lb/hour particulates
0.020 lb particulates/mmBtu actual heat input

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

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 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.

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

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

1.c Emission Limitation -
0.03 TPY particulates

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

V. Testing Requirements (continued)

1.d Emission Limitation -
0.2 lb/hour OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 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.

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

1.e Emission Limitation -
0.87 TPY OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

1.f Emission Limitation -
0.67 lb/hour NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.g Emission Limitation -
2.93 TPY NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

1.h Emission Limitation -
0.52 lb/hour CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lb CO/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation -
2.28 TPY CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lbs CO/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

V. Testing Requirements (continued)

1.j Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance based upon emission testing conducted in accordance with the methods and procedures specified in section A.V.3 of this permit.

1.k Emission Limitation -
2.18 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.3 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft.), and then dividing by 2,000.

2. 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.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Process #3 (P003)

Activity Description: Carburizing Furnace #3 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z006 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.71 mmBtu/hour carburizing process furnace No. 3, with oil quench	OAC rule 3745-31-05(A)(3) PTI 08-3066	0.007 lb/hour and 0.03 TPY particulates; 0.2 lb/hour and 0.87 TPY organic compounds (OC); 0.67 lb/hour and 2.93 TPY nitrogen oxides (NOx); 0.52 lb/hour and 2.28 TPY carbon monoxide (CO); 0.5 lb/hour and 2.18 TPY ammonia Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-21-07(G)	None, see A.II.2.
	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

2.a The 0.007 lb/hour particulates, 0.2 lb/hour OC, 0.67 lb/hour NOx, and 0.52 lb/hour CO limits were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane in this emissions unit.

II. Operational Restrictions (continued)

2. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping 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 collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

3. The permittee shall maintain monthly records of the following information for this emissions unit:

a. The total amount of natural gas burned, in mm cu. ft.

b. The total amount of propane burned, in gallons.

c. The total amount of atmospheric gas employed, in mm cu. ft.

d. The total amount of ammonia employed, in cubic feet.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the cause of the visible emissions;
c. the total duration of any visible emission incident; and
d. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

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

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation -
5% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

1.b Emission Limitations -
0.007 lb/hour particulates
0.020 lb particulates/mmBtu actual heat input

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

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 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.

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

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

1.c Emission Limitation -
0.03 TPY particulates

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

V. Testing Requirements (continued)

1.d Emission Limitation -
0.2 lb/hour OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 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.

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

1.e Emission Limitation -
0.87 TPY OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

1.f Emission Limitation -
0.67 lb/hour NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.g Emission Limitation -
2.93 TPY NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

1.h Emission Limitation -
0.52 lb/hour CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lb CO/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation -
2.28 TPY CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lbs CO/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

V. Testing Requirements (continued)

1.j Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance based upon emission testing conducted in accordance with the methods and procedures specified in section A.V.3 of this permit.

1.k Emission Limitation -
2.18 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.3 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft.), and then dividing by 2,000.

2. 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.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Process #4 (P004)

Activity Description: Carburizing Process #4 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z007 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.71 mmBtu/hour carburizing process furnace No. 4, with oil quench	OAC rule 3745-31-05(A)(3) PTI 08-3066	0.007 lb/hour and 0.03 TPY particulates; 0.2 lb/hour and 0.87 TPY organic compounds (OC); 0.67 lb/hour and 2.93 TPY nitrogen oxides (NOx); 0.52 lb/hour and 2.28 TPY carbon monoxide (CO); 0.5 lb/hour and 2.18 TPY ammonia Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-21-07(G)	None, see A.II.2.
	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

2.a The 0.007 lb/hour particulates, 0.2 lb/hour OC, 0.67 lb/hour NOx, and 0.52 lb/hour CO limits were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane in this emissions unit.

II. Operational Restrictions (continued)

2. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping 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 collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

3. The permittee shall maintain monthly records of the following information for this emissions unit:

a. The total amount of natural gas burned, in mm cu. ft.

b. The total amount of propane burned, in gallons.

c. The total amount of atmospheric gas employed, in mm cu. ft.

d. The total amount of ammonia employed, in cubic feet.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the cause of the visible emissions;
c. the total duration of any visible emission incident; and
d. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

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

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation -
5% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

1.b Emission Limitations -
0.007 lb/hour particulates
0.020 lb particulates/mmBtu actual heat input

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

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 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.

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

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

1.c Emission Limitation -
0.03 TPY particulates

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

V. Testing Requirements (continued)

1.d Emission Limitation -
0.2 lb/hour OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 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.

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

1.e Emission Limitation -
0.87 TPY OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

1.f Emission Limitation -
0.67 lb/hour NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.g Emission Limitation -
2.93 TPY NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

1.h Emission Limitation -
0.52 lb/hour CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lb CO/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation -
2.28 TPY CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lbs CO/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

V. Testing Requirements (continued)

1.j Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance based upon emission testing conducted in accordance with the methods and procedures specified in section A.V.3 of this permit.

1.k Emission Limitation -
2.18 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.3 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft.), and then dividing by 2,000.

2. 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.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tufftride Pots (P009)

Activity Description: Nitriding Process- 4 tufftride pots, water and oil quench, wash booth, and 2 wastewater holding tanks. Emissions from Z011 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
heat treatment process- tufftride pot nos. 1, 2, 3, and 4, water quench, oil quench, spray water wash booth, and one 1,000 and one 10,000-gallon wastewater holding tanks, with three, in series, packed-bed scrubbers	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb/hour particulates
	OAC rule 3745-21-07(G)	None, see A.II.5.
	OAC rule 3745-31-05(A)(3) PTI 08-3863	2.41 TPY particulates
		0.6 lb/hour and 2.63 TPY cyanide (CN)
		1.11 lbs/hour and 4.84 TPY ammonia

2. Additional Terms and Conditions

None

II. 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 3.0.

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.

5. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor for each of the packed-bed scrubbers while the emissions unit is in operation. The pH monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day for each of the packed-bed scrubbers:

a. The pH of the scrubber liquor, on hourly basis.

b. A log or record of the operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. The permittee shall properly operate and maintain equipment to monitor and record the pressure drop for each of the packed-bed scrubbers while the emissions unit is in operation. The monitoring devices and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day for each of the packed-bed scrubbers:

a. The pressure drop, in inches of water, on an hourly basis.

b. A log or record of the operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

3. The permittee shall collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which

a. The scrubber liquor pH for any of the scrubbers did not comply with the specified pH limitations.

b. The pressure drop for any of the scrubbers was not maintained at or above the required levels.

These quarterly deviation reports shall be submitted in accordance with the requirements specified in paragraph A.1.c. of the General Terms and Conditions.

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation -
20% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

1.b Emission Limitation-
0.551 lb/hour particulates

Applicable Compliance Method-
If required, compliance shall be based upon the results of emission testing for all the stacks, conducted pursuant to OAC rule 3745-17-03(B)(10).

1.c Emission Limitation -
2.41 TPY particulates

Applicable Compliance Method -
The 2.41 TPY limitation was developed by multiplying the 0.551 lb/hour limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

1.d Emission Limitation -
0.6 lb/hour CN

Applicable Compliance Method -
The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures specified in section A.V.2 of this permit.

1.e Emission Limitation -
2.63 TPY CN

Applicable Compliance Method -
The 2.63 TPY limitation was developed by multiplying the 0.6 lb/hour limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

1.f Emission Limitation -
1.11 lbs/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance with the limitation above based upon the results of emission testing conducted in accordance with the methods and procedures specified in section A.V.2 of this permit.

1.g Emission Limitation -
4.84 TPY ammonia

Applicable Compliance Method -
The 4.84 TPY limitation was developed by multiplying the 1.11 lb/hour limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

V. Testing Requirements (continued)

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

a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for CN and ammonia.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for CN, CARB Test Method 426; 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

1. The permittee shall follow the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) submitted to the Regional Air Pollution Conrol 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.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Goff Barrel Blast Unit #1 (P016)

Activity Description: Goff Barrel Blast Unit #1

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
barrel blast abrasive cleaning unit No. 1, with baghouse	OAC rule 3745-31-05(A)(3) PTI 08-1890	0.4 lb/hr and 1.75 TPY particulates Visible emissions shall not exceed 5 percent opacity, as a six-minute average.
	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(1)	The emission limitations based on these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 3 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation-
0.4 lb/hr particulates

Applicable Compliance Method-
Compliance shall be determined by multiplying the maximum hourly production rate, 2.1 tons/hour, by the emission factor of 0.8 lb particulates/ton of product (Ohio EPA RACM Table 2.7-1), and then multiplying by a control factor of (1- 0.99)*.

If required, compliance with this mass emission limitation shall be based on stack testing in accordance with OAC rule 3745-17-03(B)(10).

* The control efficiency of the baghouse is 99%.

1.b Emission Limitation-
1.75 TPY particulates

Applicable Compliance Method-
The 1.75 TPY limitation was developed by multiplying the 0.4 lb/hr limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

1.c Emission Limitation-
5% opacity, as a six-minute average

Applicable Compliance Method-
If required, compliance shall be determined by visible emission observations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in USEPA Reference Method 9.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Goff Spinner Hanger (P017)

Activity Description: Goff Spinner Hanger, Model 4860

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
spinner hanger blast abrasive cleaning, with baghouse	OAC rule 3745-31-05(A)(3) PTI 08-1890	0.6 lb/hr and 2.63 TPY particulates Visible emissions shall not exceed 5 percent opacity, as a six-minute average.
	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(1)	The emission limitations based on these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 3 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation-
0.6 lb/hr particulates

Applicable Compliance Method-
Compliance shall be determined by multiplying the maximum hourly production rate, 2.1 tons/hour, by the emission factor of 0.8 lb particulates/ton of product (Ohio EPA RACM Table 2.7-1), and then multiplying by a control factor of (1- 0.99)*.

If required, compliance with this mass emission limitation shall be based on stack testing in accordance with OAC rule 3745-17-03(B)(10).

* The control efficiency of the baghouse is 99%.

1.b Emission Limitation-
2.63 TPY particulates

Applicable Compliance Method-
The 2.63 TPY limitation was developed by multiplying the 0.4 lb/hr limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

1.c Emission Limitation-
5% opacity, as a six-minute average

Applicable Compliance Method-
If required, compliance shall be determined by visible emission observations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in USEPA Reference Method 9.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Wheelabrator Spinner Hanger (P018)

Activity Description: Wheelabrator Spinner Hanger, Model WS-210S

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
abrasive shot blast cleaning/wheelabrator, with baghouse	OAC rule 3745-31-05(A)(3) PTI 08-3038	0.6 lb/hr and 0.60 TPY particulates Visible emissions shall not exceed 5 percent opacity, as a six-minute average.
	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(1)	The emission limitations based on these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 3 inches of water while the emissions unit is in operation.

2. The maximum annual operating hours for this emissions unit shall not exceed 2000.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.

2. The permittee shall maintain monthly records of the number of hours this emissions unit was in operation.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit annual reports which summarize the actual number of hours this emissions unit was in operation. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation-
0.6 lb/hr particulates

Applicable Compliance Method-
Compliance shall be determined by multiplying the maximum hourly production rate, 3.0 tons/hour, by the emission factor of 0.8 lb particulates/ton of product (Ohio EPA RACM Table 2.7-1), and then multiplying by a control factor of (1-0.99)*.

If required, compliance with this mass emission limitation shall be based on stack testing in accordance with OAC rule 3745-17-03(B)(10).

* The control efficiency of the baghouse is 99%.

1.b Emission Limitation-
0.60 TPY particulates

Applicable Compliance Method-
Compliance with the above limitation shall be determined by multiplying the hourly emission limitation of 0.6 lb/hour by the total number of hours the emissions unit was in operation (this is calculated by summing the 12 monthly number of hours the emissions unit was in operation for the calendar year), and then dividing by 2,000.

1.c Emission Limitation-
5% opacity, as a six-minute average

Applicable Compliance Method-
If required, compliance shall be determined by visible emission observations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in USEPA Reference Method 9.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Ammonia Gas Nitriding Process #1 (P019)

Activity Description: Ammonia Gas Nitriding Process #1- Emissions from Z012 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.63 mmBtu/hour gas nitriding furnace No. 1, with packed tower scrubber	OAC rule 3745-31-05(A)(3) PTI 08-3633	0.001 lb/hour and 0.003 TPY particulates; 0.016 lb/hour and 0.07 TPY nitrogen oxides (NOx); 0.013 lb/hour and 0.06 TPY carbon monoxide (CO); 0.5 lb/hour and 0.66 TPY ammonia Visible particulate emissions shall not exceed 5% opacity, as a six-minute average. See A.2.a.
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	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

2.a The 0.001 lb/hour particulates, 0.016 lb/hour NOx, and 0.013 lb/hour CO limitations were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

2.b The ammonia emission rate shall not exceed 1.68 lbs/hour for emissions units P015, P019, P025, P030, T002, and T003 combined. (Ammonia emissions from emissions units P015, P019, P025, P030, T002, and T003 are controlled through the application of a common packed tower scrubber identified as scrubber No. 4.)

II. Operational Restrictions

1. The 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 within the range of 2 to 3.

3. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following for this emissions unit:

a. The total amount of natural gas burned, in cubic feet.

b. The total amount of ammonia employed, in cubic feet.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the pH of the scrubber liquor while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

3. The permittee shall collect and record the following information each day for this emissions unit:

a. The pressure drop across the scrubber, in inches of water, on an hourly basis.

b. The pH of the scrubber liquor, on a continuous basis.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The pH of the scrubber liquor.

These quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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

V. Testing Requirements

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

1.a Emission Limitation -
5% opacity visible emissions, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

V. Testing Requirements (continued)

1.b Emission Limitation-
0.020 lb particulates/mmBtu actual heat input

Applicable Compliance Method-
Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.000157 mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (1.9 pounds particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (0.63 mmBtu/hour).

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

1.c Emission Limitation -
0.003 TPY particulates

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.1 and shall be determined by multiplying the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas combustion (1.9 lbs particulates/mm cu. ft.), and then dividing by 2,000.

1.d Emission Limitation -
0.001 lb/hour particulates

Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.000157 mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (1.9 lbs particulates/mm cu. ft).

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

1.e Emission Limitation -
0.016 lb/hour nitrogen oxides

Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.000157 mm cu. ft./hour) by the AP-42, Table 1.4-1 (revised 2/98) emission factor for natural gas (100 lbs NOx/mm cu. ft).

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

1.f Emission Limitation -
0.07 TPY nitrogen oxides

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.1 and shall be determined by multiplying the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor for natural gas combustion (100 lbs NOx/mm cu. ft.), and then dividing by 2,000.

V. Testing Requirements (continued)

1.g Emission Limitation -
0.013 lb/hour carbon monoxide

Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.000157 mm cu. ft/hour) by the AP-42, Table 1.4-1 (revised 2/98) emission factor for natural gas (84 lbs CO/mm cu. ft).

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.h Emission Limitation -
0.06 TPY carbon monoxide

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.1 and shall be determined by multiplying the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor for natural gas combustion (84 lbs CO/mm cu. ft.), and then dividing by 2,000.

1.i Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
Compliance shall be based upon the results of emission testing conducted in accordance with the methods and procedures specified in section A.V.2 of this permit.

1.j Emission Limitation -
0.66 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.1 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft) and multiplying by a scrubber control factor of (1 - 0.95)*, and then dividing by 2,000.

* The scrubber control efficiency is 95%.

1.k Emission Limitation -
1.68 lbs/hour ammonia (for emissions units P015, P019, P025, P030, T002, and T003 combined)

Applicable Compliance Method -
Compliance shall be based upon the results of emission testing conducted in accordance with the methods and procedures specified in section A.V.2 of this permit.

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

a. The emission testing shall be conducted within 3 months of issuance of this permit and within 6 months prior to expiration of this permit.

b. The emission 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.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Process #6 (P027)

Activity Description: Carburizing Process #6 with Oil Quench. Natural gas burner indirectly heats the metal parts. Emissions from Z014 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.71 mmBtu/hour carburizing process furnace No. 6, with oil quench	OAC rule 3745-31-05(A)(3) PTI 08-3066	0.007 lb/hour and 0.03 TPY particulates; 0.2 lb/hour and 0.87 TPY organic compounds (OC); 0.67 lb/hour and 2.93 TPY nitrogen oxides (NOx); 0.52 lb/hour and 2.28 TPY carbon monoxide (CO); 0.5 lb/hour and 2.18 TPY ammonia Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-21-07(G)	None, see A.II.2.
	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

2.a The 0.007 lb/hour particulates, 0.2 lb/hour OC, 0.67 lb/hour NOx, and 0.52 lb/hour CO limits were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane in this emissions unit.

II. Operational Restrictions (continued)

2. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping 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 collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

3. The permittee shall maintain monthly records of the following information for this emissions unit:

a. The total amount of natural gas burned, in mm cu. ft.

b. The total amount of propane burned, in gallons.

c. The total amount of atmospheric gas employed, in mm cu. ft.

d. The total amount of ammonia employed, in cubic feet.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the cause of the visible emissions;
c. the total duration of any visible emission incident; and
d. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

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

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation -
5% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

1.b Emission Limitations -
0.007 lb/hour particulates
0.020 lb particulates/mmBtu actual heat input

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

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 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.

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

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

1.c Emission Limitation -
0.03 TPY particulates

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

V. Testing Requirements (continued)

1.d Emission Limitation -
0.2 lb/hour OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 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.

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

1.e Emission Limitation -
0.87 TPY OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

1.f Emission Limitation -
0.67 lb/hour NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.g Emission Limitation -
2.93 TPY NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

1.h Emission Limitation -
0.52 lb/hour CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lb CO/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation -
2.28 TPY CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lbs CO/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

V. Testing Requirements (continued)

1.j Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance based upon emission testing conducted in accordance with the methods and procedures specified in section A.V.3 of this permit.

1.k Emission Limitation -
2.18 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.3 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft.), and then dividing by 2,000.

2. 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.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Furnace #8 (P028)

Activity Description: Carburizing Process #8 with Oil Quench.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.71 mmBtu/hour carburizing process furnace No. 8, with oil quench	OAC rule 3745-31-05(A)(3) PTI 08-3480	0.007 lb/hour and 0.02 TPY particulates; 0.0004 lb/hour and 0.001 TPY sulfur dioxide (SO2); 0.01 lb/hour and 0.03 TPY organic compounds (OC); 0.67 lb/hour and 2.0 TPY nitrogen oxides (NOx); 0.52 lb/hour and 1.56 TPY carbon monoxide (CO); 0.5 lb/hour and 2.2 TPY ammonia Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average.
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-21-07(G)	None, see A.II.2.
	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 0.007 lb/hour particulates, 0.0004 lb/hour SO2, 0.01 lb/hour OC, 0.67 lb/hour NOx, and 0.52 lb/hour CO limits were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane in this emissions unit.

2. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping 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 collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

3. The permittee shall maintain monthly records of the following for this emissions unit:

a. The total amount of natural gas burned, in mm cu. ft.

b. The total amount of propane burned, in gallons.

c. The total amount of atmospheric gas employed, in mm cu. ft.

d. The total amount of ammonia employed, in cubic feet.

IV. Reporting Requirements

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

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

V. Testing Requirements

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

1.a Emission Limitation -
5% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

V. Testing Requirements (continued)

1.b Emission Limitations -
0.007 lb/hour particulates
0.020 lb particulates/mmBtu actual heat input

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

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 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.

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

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

1.c Emission Limitation -
0.02 TPY particulates

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

V. Testing Requirements (continued)

1.d Emission Limitation -
0.01 lb/hour OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 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.

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

1.e Emission Limitation -
0.03 TPY OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

1.f Emission Limitation -
0.67 lb/hour NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.g Emission Limitation -
2.0 TPY NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

1.h Emission Limitation -
0.52 lb/hour CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lb CO/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation -
1.56 TPY CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lbs CO/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

V. Testing Requirements (continued)

1.j Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance based upon the results of emission testing conducted in accordance with the methods and procedures specified in section A.V.3 of this permit.

1.k Emission Limitation -
2.2 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping specified in section A.III.3 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft.), and dividing by 2,000.

1.l Emission Limitation -
0.0004 lb/hour SO2

Applicable Compliance Method -
Compliance with the above limitation shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO2/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.016 lb SO2/1000 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 SO2/mm cu. ft; and

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

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

1.m Emission Limitation -
0.001 TPY SO2

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO2/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.016 lb SO2/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 0 lbs SO2/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

2. 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.

V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Carburizing Furnace #9 (P029)

Activity Description: Carburizing Process #9 with Oil Quench. Electric burner indirectly heats the metal parts.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.71 mmBtu/hour carburizing process furnace No. 9, with oil quench	OAC rule 3745-31-05(A)(3) PTI 08-3620	0.01 lb/hour and 0.03 TPY particulates; 0.01 lb/hour and 0.04 TPY sulfur dioxide (SO2); 0.01 lb/hour and 0.04 TPY organic compounds (OC); 0.63 lb/hour and 2.70 TPY nitrogen oxides (NOx); 1.13 lbs/hour and 0.54 TPY carbon monoxide (CO); 1.25 lbs/hour and 5.40 TPY ammoni Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average.
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-21-07(G)	None, see A.II.2.
	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 0.01 lb/hour particulates, 0.01 lb/hour SO2, 0.01 lb/hour OC, 0.63 lb/hour NOx, and 1.13 lb/hour CO limits were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane in this emissions unit.

2. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

III. Monitoring and/or Record Keeping 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 collect and record the following information each month for this emissions unit:

a. The company identification of each material employed in the quench tank associated with this emissions unit.

b. Whether or not each material employed is a photochemically reactive material.

3. The permittee shall maintain monthly records of the following for this emissions unit:

a. The total amount of natural gas burned, in mm cu. ft.

b. The total amount of propane burned, in gallons.

c. The total amount of atmospheric gas employed, in mm cu. ft.

d. The total amount of ammonia employed, in cubic feet.

IV. Reporting Requirements

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

2. The permittee shall submit deviation reports which identify each month during which any photochemically reactive material was employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of the material(s) emitted during each such day, in pounds. Each report shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the deviation.

V. Testing Requirements

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

1.a Emission Limitation -
5% opacity, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emissions observations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

V. Testing Requirements (continued)

1.b Emission Limitations -
0.01 lb/hour particulates
0.020 lb particulates/mmBtu actual heat input

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

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 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.

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

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

1.c Emission Limitation -
0.03 TPY particulates

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs particulates/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.4 lb particulates/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

V. Testing Requirements (continued)

1.d Emission Limitation -
0.01 lb/hour OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 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.

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

1.e Emission Limitation -
0.04 TPY OC

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 5.5 lbs OC/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.5 lb OC/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year 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, and divide by 2,000.

1.f Emission Limitation -
0.63 lb/hour NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 7 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.g Emission Limitation -
2.70 TPY NOx

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 100 lbs NOx/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 14 lbs NOx/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 1000 lbs NOx/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

1.h Emission Limitation -
1.13 lbs/hour CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 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 (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lb CO/1000 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.

If required, the permittee shall demonstrate compliance in accordance with Method 10 of 40 CFR Part 60, Appendix A.

1.i Emission Limitation -
0.54 TPY CO

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-1 (revised 2/98) emission factor of 84 lbs CO/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 1.9 lbs CO/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 840 lbs CO/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

V. Testing Requirements (continued)

1.j Emission Limitation -
1.25 lbs/hour ammonia

Applicable Compliance Method -
The permittee shall demonstrate compliance based upon the results of emission testing conducted in accordance with the methods and procedures specified in section A.V.3 of this permit.

1.k Emission Limitation -
5.40 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping specified in section A.III.3 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft.), and dividing by 2,000.

1.l Emission Limitation -
0.01 lb/hour SO2

Applicable Compliance Method -
Compliance with the above limitation shall be determined as follows:

i. multiply the maximum hourly natural gas usage rate (0.000714 mm cu. ft/hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO2/mm cu. ft;

ii. multiply the maximum hourly propane usage rate (0.67 gallon/hour) by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.016 lb SO2/1000 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 SO2/mm cu. ft; and

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

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

1.m Emission Limitation -
0.04 TPY SO2

Applicable Compliance Method -
Compliance with the limitation above shall be determined as follows:

i. multiply the sum of the twelve monthly natural gas usage rates for the calendar year by the AP-42, Table 1.4-2 (revised 7/98) emission factor of 0.6 lb SO2/mm cu. ft;

ii. multiply the sum of the twelve monthly propane usage rates for the calendar year by the AP-42, Table 1.5-1 (revised 10/96) emission factor of 0.016 lb SO2/1000 gallons;

iii. multiply the sum of the twelve monthly atmospheric gas usage rates for the calendar year by the facility-derived emission factor of 0 lbs SO2/mm cu. ft; and

iv. sum the results of i, ii, and iii above, and divide by 2,000.

2. 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.

V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate 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 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Ammonia Gas Nitriding Process #3 (P030)

Activity Description: Ammonia Gas Nitriding Furnace #3- Emissions from Z022 are included in the total emissions from this process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
0.63 mmBtu/hour gas nitriding furnace No. 3, with packed tower scrubber	OAC rule 3745-31-05(A)(3) PTI 08-3784	0.5 lb/hour and 2.19 TPY ammonia Visible particulate emissions shall not exceed 5% opacity, as a six-minute average. See A.2.a.
	OAC rule 3745-17-10(B)(1)	0.020 lb particulates/mmBtu actual heat input
	OAC rule 3745-17-07(A)	The emission limitation based on this rule is less stringent than the emission limtiation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The ammonia emission rate shall not exceed 1.68 lbs/hour for emissions units P015, P019, P025, P030, T002, and T003 combined. (Ammonia emissions from emissions units P015, P019, P025, P030, T002, and T003 are controlled through the application of a common packed tower scrubber identified as scrubber No. 4.)

II. Operational Restrictions

1. The 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 within the range of 2 to 3.

3. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the total amount of ammonia employed, in cubic feet.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the pH of the scrubber liquor while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

3. The permittee shall collect and record the following information each day for this emissions unit:

a. The pressure drop across the scrubber, in inches of water, on an hourly basis.

b. The pH of the scrubber liquor, on a continuous basis.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The pH of the scrubber liquor.

These quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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

V. Testing Requirements

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

1.a Emission Limitation -
0.5 lb/hour ammonia

Applicable Compliance Method -
Compliance shall be based upon the results of emission testing conducted in accordance with the methods and procedures specified in section A.V.2 of this permit.

1.b Emission Limitation -
2.19 TPY ammonia

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in section A.III.1 and shall be determined by multiplying the sum of the twelve monthly ammonia usage rates for the calendar year by the vapor density of ammonia (0.0456 lb/cu. ft) and by a scrubber control factor of (1 - 0.95), and then dividing by 2,000.

1.c Emission Limitation -
5% opacity visible emissions, as a six-minute average

Applicable Compliance Method -
If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

V. Testing Requirements (continued)

1.d Emission Limitation-
0.020 lb particulates/mmBtu actual heat input

Applicable Compliance Method-
Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.000157 mm cu. ft./hour) by the AP-42, Table 1.4-2 (revised 7/98) emission factor for natural gas (1.9 pounds particulates/mm cu. ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (0.63 mmBtu/hour).

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

1.e Emission Limitation -
1.68 lbs/hour ammonia (for emissions units P015, P019, P025, P030, T002, and T003 combined)

Applicable Compliance Method -
Compliance shall be based upon the results of emission testing conducted in accordance with the methods and procedures as specified in section A.V.2 of this permit.

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

a. The emission testing shall be conducted within 3 months of issuance of this permit and within 6 months prior to expiration of this permit.

b. The emission 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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