



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center  
50 W. Town St., Suite 700  
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184  
www.epa.ohio.gov

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

11/2/2009

Lee Sanders  
Honda Transmission Mfg. of America Inc.  
6964 State Route 235 North  
Russells Point, OH 43348

Certified Mail

Facility ID: 0546000101  
Permit Number: P0105494  
County: Logan

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT  
Permit Type: Administrative Permit Modification

Dear Permit Holder:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The issuance of this Title V permit is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Southwest District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.ohio.gov/dapc>.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
Ohio EPA DAPC, Southwest District Office

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Title V Permit to Control Air Pollution  
OAC Chapter 3745-77**

**Honda Transmission Mfg. of America Inc.**

Facility ID: 0546000101  
Permit Number: P0105494  
Permit Type: Administrative Permit Modification  
Issued: 11/2/2009  
Effective: 11/2/2009  
Expiration: 12/1/2013





State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Title V Permit to Control Air Pollution**  
**OAC Chapter 3745-77**  
 Honda Transmission Mfg. of America Inc.

**Table of Contents**

Authorization ..... 1

A. Standard Terms and Conditions ..... 2

    1. Federally Enforceable Standard Terms and Conditions ..... 3

    2. Monitoring and Related Record Keeping and Reporting Requirements..... 3

    3. Scheduled Maintenance..... 6

    4. Risk Management Plans ..... 6

    5. Title IV Provisions ..... 6

    6. Severability Clause ..... 7

    7. General Requirements ..... 7

    8. Fees..... 8

    9. Marketable Permit Programs..... 8

    10. Reasonably Anticipated Operating Scenarios ..... 8

    11. Reopening for Cause ..... 8

    12. Federal and State Enforceability ..... 9

    13. Compliance Requirements ..... 9

    14. Permit Shield ..... 10

    15. Operational Flexibility..... 10

    16. Emergencies ..... 11

    17. Off-Permit Changes ..... 11

    18. Compliance Method Requirements ..... 12

    19. Insignificant Activities or Emissions Levels..... 12

    20. Permit to Install Requirement ..... 12

    21. Air Pollution Nuisance ..... 12

    22. Permanent Shutdown of an Emissions Unit ..... 12

    23. Title VI Provisions ..... 13

    24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only ..... 13

    25. Records Retention Requirements Under State Law Only ..... 13

    26. Inspections and Information Requests ..... 13

    27. Scheduled Maintenance/Malfunction Reporting ..... 14

    28. Permit Transfers ..... 14



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

- 29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations ..... 14
- B. Facility-Wide Terms and Conditions..... 15
- C. Emissions Unit Terms and Conditions ..... 20
  - 1. L002, Wash-01..... 21
  - 2. L003, Wash-02..... 25
  - 3. L004, Wash-03..... 29
  - 4. P026, Dynamometer #1, 2 & 3 ..... 33
  - 5. P027, Carb 1 - Carburizing Furnace..... 39
  - 6. P028, Carb 2 - Carburizing Furnace..... 46
  - 7. P029, Carb 3 - Carburizing Furnace..... 53
  - 8. P030, Carb 4 - Carburizing Furnace..... 60
  - 9. P031, Carb 5 - Carburizing Furnace..... 67
  - 10. P033, Carb 7 - Carburizing Furnace..... 74
  - 11. P034, Carb 8 - Carburizing Furnace..... 81
  - 12. P036, 2000 Ton Cutting & Forging Press ..... 88



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Title V Permit**  
**Permit Number:** P0105494  
**Facility ID:** 0546000101  
**Effective Date:** 11/2/2009

## Authorization

Facility ID: 0546000101  
Facility Description: Transmission manufacturer  
Application Number(s): M0000573  
Permit Number: P0105494  
Permit Description: APA to address two minor typos in Title V's facility-wide terms and conditions  
Permit Type: Administrative Permit Modification  
Issue Date: 11/2/2009  
Effective Date: 11/2/2009  
Expiration Date: 12/1/2013  
Superseded Permit Number: P0088804

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Honda Transmission Mfg. of America Inc.  
6964 State Route 235 North  
Russells Point, OH 43348

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

Ohio EPA DAPC, Southwest District Office  
401 East Fifth Street  
Dayton, OH 45402  
(937)285-6357

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. 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. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Southwest District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Title V Permit**  
**Permit Number:** P0105494  
**Facility ID:** 0546000101  
**Effective Date:** 11/2/2009

## **A. Standard Terms and Conditions**



## 1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
  - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
  - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting
  - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations  
*(Authority for term: ORC 3704.036(A))*

## 2. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*
- 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.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*
- c) The permittee shall submit required reports in the following manner:
- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:



Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.



These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.



If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.  
*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))*

(4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Southwest District Office.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

### **3. Scheduled Maintenance**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance 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). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

### **4. 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 C.F.R. 68.215(a), the permittee shall submit either of the following:

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

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

*(Authority for term: OAC rule 3745-77-07(A)(4))*

### **5. 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.

*(Authority for term: OAC rule 3745-77-07(A)(5))*



**6. 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.  
*(Authority for term: OAC rule 3745-77-07(A)(6))*

**7. 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, in accordance with Standard Term and Condition A.11 below. 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.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
  - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
  - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
  - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee



shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

*(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))*

**8. 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.

*(Authority for term: OAC rule 3745-77-07(A)(8))*

**9. 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.

*(Authority for term: OAC rule 3745-77-07(A)(9))*

**10. 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 standard terms and conditions shall apply to all operating scenarios authorized in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(10))*

**11. 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 (18) 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.  
*(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))*

**12. 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.  
*(Authority for term: OAC rule 3745-77-07(B))*

**13. 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:
  - (1) 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.
  - (2) 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.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) 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:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) 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



Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.
- (2) 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.

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

*(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))*

**14. 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.

*(Authority for term: OAC rule 3745-77-07(F))*

**15. 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).  
*(Authority for term: OAC rules 3745-77-07(H)(1) and (2))*

## **16. 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.  
*(Authority for term: OAC rule 3745-77-07(G))*

## **17. 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 of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions 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.
- 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.  
*(Authority for term: OAC rule 3745-77-07(I))*



**18. 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.  
*(This term is provided for informational purposes only.)*

**19. Insignificant Activities or Emissions Levels**

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.  
*(Authority for term: OAC rule 3745-77-07(A)(1))*

**20. 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.  
*(Authority for term: OAC rule 3745-77-07(A)(1))*

**21. 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.  
*(Authority for term: OAC rule 3745-77-07(A)(1))*

**22. Permanent Shutdown of an Emissions Unit**

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.  
*(Authority for term: OAC rule 3745-77-01)*



**23. 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.  
*(Authority for term: OAC rule 3745-77-01(H)(11))*

**24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**25. Records Retention Requirements Under State Law Only**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

**26. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports



pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

*(Authority for term: OAC rule 3745-77-07(C))*

**27. 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).

**28. 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.

*(Authority for term: OAC rule 3745-77-01(C))*

**29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or
- c) where the company's responsible official has certified that an emissions unit has been permanently shut down.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Title V Permit**  
**Permit Number:** P0105494  
**Facility ID:** 0546000101  
**Effective Date:** 11/2/2009

## **B. Facility-Wide Terms and Conditions**



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) 2.c).
  
1. The following are facility-wide terms and conditions:
  - a) Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21. The following emissions units are defined as insignificant emission units at this facility and meet the requirements of either an exemption under OAC rule 3745-31-03 or have a uncontrolled potential of less than 5 tons per year as defined under OAC rule 3745-77-01(U):
    - (1) Z001, Yard Dog Diesel Fuel Tank;
    - (2) Z002, 5000 Gallon WWTP Used Oil Tank T-4;
    - (3) Z003, 15,000 Gallon ATF Storage Tank;
    - (4) Z004, Indust. Pump House Diesel Fuel Tank;
    - (5) Z005, 87,000 Gallon WWTP Tank T-1;
    - (6) Z006, 3,250 Gallon Impreg. Process Tank;
    - (7) Z008, Emergency Fire Pump Diesel Fuel Tank #1;
    - (8) Z009, Welding Maintenance;
    - (9) Z011, Aqueous Parts Cleaners;
    - (10) Z017, 1650 Die Cast Machine #1; and
    - (11) Z018, 1650 Die Cast Machine #2.
    - (12) Z019, 800 Die Cast Machine #1;
    - (13) Z020, 2250 Die Cast Machine #1;
    - (14) Z023, Tempering Furnace (Lanly);
    - (15) Z025, Gasoline Dispensing Operation;
    - (16) Z026, Gasoline AGST #1;
    - (17) Z027, Gasoline AGST #2;
    - (18) Z028, Natural Gas Usage;
    - (19) Z029, Dry Milling Machines Line #1;



- (20) Z030, Dry Milling Machines Line #2;
- (21) Z040, Bulk Coolant Storage Tanks (2 - 2,500 Gallon);
- (22) Z050, Valve Body NC Machines (Smog Hog & Absorbent Filter Systems);
- (23) Z051, Diesel Generator #2 (Mezz);
- (24) Z052, Diesel Generator #3 (Mezz);
- (25) Z053, Diesel Generator #4 (Potable water Pump House);
- (26) Z054, 8,000 Gallon HPDC WW Tank;
- (27) Z055, Emergency Fire Pump Diesel Fuel Tank #2;
- (28) Z056, 1650 Die Cast Machine #3;
- (29) Z057, 800 Die Cast Machine #2;
- (30) Z059, TQ - Detergent Cold Cleaner;
- (31) Z060, Inline - Detergent Cold Cleaner;
- (32) Z061, PED - Detergent Cold Cleaner;
- (33) Z062, Trinco Sand Blast Unit;
- (34) Z064, Die Maintenance Parts Washer;
- (35) Z065, C1 Line (S Gear);
- (36) Z066, T3 Line (S Gear);
- (37) Z067, Counter Shaft Line;
- (38) Z068, Final Driven Line;
- (39) Z069, SI Line (S Gear);
- (40) Z070, Hob Grinder (ATG Tool Room);
- (41) Z071, Tool Regrind Parts Washer (ATG Tool Room);
- (42) Z072, Shot Blast Unit # 1 (Heat Treat);
- (43) Z073, Shot Blast Unit # 2 (Heat Treat);
- (44) Z075, Diesel Generator #5 (DTX);
- (45) Z076, Diesel Generator #6 (Forging);
- (46) Z077, 7,488 Gallon Oil Storage Tank T-700;



- (47) Z078, 7,488 Gallon Oil Storage Tank T-750;
  - (48) Z079, 5,760 Gallon Oil Tank T-2;
  - (49) Z080, 11,800 Gallon UF Process Tank #1;
  - (50) Z081, 11,800 Gallon UF Process Tank #2;
  - (51) Z082, 1,000 Gallon Effluent Tank T-800;
  - (52) Z083, 1,000 Gallon Impreg Sludge Tank;
  - (53) Z084, 12,000 Gallon Impreg Storage Tank T-3;
  - (54) Z085, 1,000 Gallon Reactor Tank;
  - (55) Z086, Propane Tank;
  - (56) Z087, machining (ATG Tool Room);
  - (57) P002, Diesel Generator # 1 (Mezz);
- b) Upon renewal of the Title V for this facility, emissions unit P026, the dynamometer #1, 2, & 3, will need to comply with the requirements of 40 CFR Part 64 CAM.
- c) The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements and/or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:
- (1) P003 Modern Aluminum # 1;
  - (2) P004 Modern Aluminum # 2;
  - (3) Z007, Exx Print Valve Body Pump Test Machine;
  - (4) Z010, Paved Roadways;
  - (5) Z012, Schaefer Furnace 1650 #3;
  - (6) Z013, Schaefer Furnace 800 #1;
  - (7) Z014, Schaefer Furnace 800 #2;
  - (8) Z015, Schaefer Furnace 2250 #1;
  - (9) Z016, Schaefer Receiving Furnace;
  - (10) Z021, Zinc Shot Blast (Die Cast Area);
  - (11) Z022, Ladle Transfer;
  - (12) Z024, Test Track;
  - (13) Z031, Dry Milling Machines Line #3 (No controls);



- (14) Z032, TC Final Washer;
- (15) Z033, MC Final Washer;
- (16) Z034, Line 2 Intermediate Washer;
- (17) Z035, Line 3 Intermediate Washer;
- (18) Z036, MC Line 1;
- (19) Z037, MC Line 2;
- (20) Z038, MC Line 3;
- (21) Z039, Valve Body Line;
- (22) Z041, Line 1 Intermediate Washer (2);
- (23) Z042, Assembly Line 1;
- (24) Z043, Assembly Line 2;
- (25) Z044, Line 1 Coolant System;
- (26) Z045, Line 2 Coolant System;
- (27) Z046, Line 3 Coolant System;
- (28) Z047, Impregnation Machine;
- (29) Z048, Line 2 Repair Machine;
- (30) Z049, Shaft Line;
- (31) Z058, In Line Analysis;
- (32) Z063, Sumitomo Uni-Washer; and
- (33) Z074, Marking Compound (4-Wheel Drive Assembly).



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Title V Permit**  
**Permit Number:** P0105494  
**Facility ID:** 0546000101  
**Effective Date:** 11/2/2009

## **C. Emissions Unit Terms and Conditions**



**1. L002, Wash-01**

**Operations, Property and/or Equipment Description:**

Vacuum Parts Washer w/ Solvent Recovery Distillation

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	Volatile organic compound (VOC) emissions shall not exceed 3.98 pounds per hour, as a monthly average, and 17.43 tons per year.
b.	OAC rule 3745-21-09(O)(4)	c)(1), c)(2), c)(3), c)(4), and c)(5).

(2) Additional Terms and Conditions

a. The annual VOC emissions limitation was established to reflect potential to emit for this emissions unit. Therefore, it is not necessary to establish monitoring, record keeping and reporting requirements to ensure compliance with this limitation.

c) Operational Restrictions

(1) The vacuum parts washer shall employ a sufficient drain time to prevent cleaned parts from carrying out solvent liquid or vapor.

(2) The permittee shall operate and maintain a condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm.

(3) The permittee shall operate and maintain a distillation system for the vacuum parts washer. The distillation system shall be operated at all times except during maintenance.

(4) The vacuum parts washer shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:

a. maintain the system as a closed loop system;



- b. provide downtime covers for closing off the entrance and exit during shutdown hours;
  - c. minimize carry-out emissions by:
    - i. racking parts so that solvent drains freely from parts and is not trapped;
    - ii. store waste solvent only in covered containers; and
    - iii. repair solvent leaks immediately, or shut down the degreaser;
  - d. place downtime covers over entrances and exits of the vacuum parts washer at all times when the conveyors and exhausts are not being operated; and
  - e. clean only materials that are neither porous nor absorbent.
- (5) The permittee shall not employ any halogenated solvents within this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain records of the following information:
- a. the types of solvents employed in the vacuum parts washer;
  - b. whether or not the solvent employed is a halogenated solvent; and
  - c. all control equipment maintenance.
- (2) The permittee shall maintain monthly records of the following information for this emissions unit:
- a. the volume of solvent containing cleaning agent employed, i.e., the sum of the volume of solvent within the parts washer at the beginning of the month and the volume of solvent added during the month subtracted from the volume of solvent remaining at the end of the month;
  - b. the VOC emissions, i.e., the volume of the solvent containing cleaning agent employed (from a. above) multiplied by the VOC content of the agent, and finally multiplied by a safety factor of 110%;
  - c. the number of hours the vacuum parts washer operated; and
  - d. the average hourly emission rate, i.e., the monthly VOC emissions (from b. above) divided by the number of hours operated (from c. above).
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the following:
- a. average hourly VOC emissions limitation of 3.98 lbs; and
  - b. the use of halogenated solvents.



If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

3.98 lbs VOC/hr, as a monthly average

Applicable Compliance Method:

The hourly VOC emission limitation was established by the following calculation:

$$ER = [(U \times VOC) / OH] (SF)$$

Where:

ER = the average hourly VOC emission rate;

U = the maximum monthly usage of solvent containing cleaning agent (375.164 gal);

VOC = the VOC content of the solvent containing cleaning agent (7.18 lbs/gal);

OH = the monthly operating hours (744 hrs);

SF = the safety factor of 110%;

Compliance with the hourly VOC emissions limitations shall be demonstrated through the record keeping in d)(2).

b. Emission Limitation:

17.43 tons VOC per year

Applicable Compliance Method:

The annual VOC emission limitation was established by the following calculation:

$$Eann = ER \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where:

Eann = the annual VOC emission rate; and



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Title V Permit**  
**Permit Number:** P0105494  
**Facility ID:** 0546000101  
**Effective Date:** 11/2/2009

ER = the average hourly VOC emission rate.

Compliance with the annual VOC emissions limitations shall be demonstrated through compliance with the average hourly emission limitation per the record keeping in d)(2).

- (2) Formulation data or USEPA Method 24 shall be used to determine the volatile organic compound content of materials added to this emissions unit.

g) Miscellaneous Requirements

- (1) None.



**2. L003, Wash-02**

**Operations, Property and/or Equipment Description:**

Vacuum Parts Washer w/ Solvent Recovery Distillation

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	Volatile organic compound (VOC) emissions shall not exceed 3.98 pounds per hour, as a monthly average, and 17.43 tons per year.
b.	OAC rule 3745-21-09(O)(4)	c)(1), c)(2), c)(3), c)(4) and c)(5), below.

(2) Additional Terms and Conditions

a. The annual VOC emissions limitation was established to reflect potential to emit for this emissions unit. Therefore, it is not necessary to establish monitoring, record keeping and reporting requirements to ensure compliance with this limitation.

c) Operational Restrictions

(1) The vacuum parts washer shall employ a sufficient drain time to prevent cleaned parts from carrying out solvent liquid or vapor.

(2) The permittee shall operate and maintain a condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm.

(3) The permittee shall operate and maintain a distillation system for the vacuum parts washer. The distillation system shall be operated at all times except during maintenance.

(4) The vacuum parts washer shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:

a. maintain the system as a closed loop system;

b. provide downtime covers for closing off the entrance and exit during shutdown hours;



- c. minimize carry-out emissions by:
    - i. racking parts so that solvent drains freely from parts and is not trapped;
    - ii. store waste solvent only in covered containers; and
    - iii. repair solvent leaks immediately, or shut down the degreaser;
  - d. place downtime covers over entrances and exits of the vacuum parts washer at all times when the conveyors and exhausts are not being operated; and
  - e. clean only materials that are neither porous nor absorbent.
- (5) The permittee shall not employ any halogenated solvents within this emissions unit.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall maintain records of the following information:
- a. the types of solvents employed in the vacuum parts washer;
  - b. whether or not the solvent employed is a halogenated solvent; and
  - c. all control equipment maintenance.
- (2) The permittee shall maintain monthly records of the following information for this emissions unit:
- a. the volume of solvent containing cleaning agent employed, i.e., the sum of the volume of solvent within the parts washer at the beginning of the month and the volume of solvent added during the month subtracted from the volume of solvent remaining at the end of the month;
  - b. the VOC emissions, i.e., the volume of the solvent containing cleaning agent employed (from a. above) multiplied by the VOC content of the agent, and finally multiplied by a safety factor of 110%;
  - c. the number of hours the vacuum parts washer operated; and
  - d. the average hourly emission rate, i.e., the monthly VOC emissions (from b. above) divided by the number of hours operated (from c. above).
- e) **Reporting Requirements**
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the following:
- a. average hourly VOC emissions limitation of 3.98 lbs; and
  - b. the use of halogenated solvents.
- If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.



The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

3.98 lbs VOC/hr, as a monthly average

Applicable Compliance Method:

The hourly VOC emission limitation was established by the following calculation:

$$ER = [(U \times VOC)/OH] (SF)$$

Where:

ER = the average hourly VOC emission rate;

U = the maximum monthly usage of solvent containing cleaning agent (375.164 gal);

VOC = the VOC content of the solvent containing cleaning agent (7.18 lbs/gal);

OH = the monthly operating hours (744 hrs); and

SF = the safety factor of 110%.

Compliance with the hourly VOC emissions limitations shall be demonstrated through the record keeping in d)(2).

b. Emission Limitation:

17.43 tons VOC per year

Applicable Compliance Method:

The annual VOC emission limitation was established by the following calculation:

$$Eann = ER \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where;

Eann = the annual VOC emission rate;

ER = the average hourly VOC emission rate;



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Title V Permit**  
**Permit Number:** P0105494  
**Facility ID:** 0546000101  
**Effective Date:** 11/2/2009

Compliance with the annual VOC emissions limitations shall be demonstrated through compliance with the average hourly emission limitation per the record keeping in d)(2).

- (2) Formulation data or USEPA Method 24 shall be used to determine the volatile organic compound content of materials added to this emissions unit.
- g) Miscellaneous Requirements
- (1) None.



**3. L004, Wash-03**

**Operations, Property and/or Equipment Description:**

Vacuum Parts Washer w/ Solvent Recovery Distillation

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	Volatile organic compound (VOC) emissions shall not exceed 3.98 pounds per hour, as a monthly average, and 17.43 tons per year.
b.	OAC rule 3745-21-09(O)(4)	c)(1), c)(2), c)(3), c)(4), and c)(5), below.

(2) Additional Terms and Conditions

a. The annual VOC emissions limitation was established to reflect potential to emit for this emissions unit. Therefore, it is not necessary to establish monitoring, record keeping and reporting requirements to ensure compliance with this limitation.

c) Operational Restrictions

(1) The vacuum parts washer shall employ a sufficient drain time to prevent cleaned parts from carrying out solvent liquid or vapor.

(2) The permittee shall operate and maintain a condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm.

(3) The permittee shall operate and maintain a distillation system for the vacuum parts washer. The distillation system shall be operated at all times except during maintenance.

(4) The vacuum parts washer shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:

a. maintain the system as a closed loop system;

b. provide downtime covers for closing off the entrance and exit during shutdown hours;



- c. minimize carry-out emissions by:
      - i. racking parts so that solvent drains freely from parts and is not trapped;
      - ii. store waste solvent only in covered containers; and
      - iii. repair solvent leaks immediately, or shut down the degreaser;
    - d. place downtime covers over entrances and exits of the vacuum parts washer at all times when the conveyors and exhausts are not being operated; and
    - e. clean only materials that are neither porous nor absorbent.
  - (5) The permittee shall not employ any halogenated solvents within this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall maintain records of the following information:
    - a. a. the types of solvents employed in the vacuum parts washer;
    - b. whether or not the solvent employed is a halogenated solvent; and
    - c. all control equipment maintenance.
  - (2) The permittee shall maintain monthly records of the following information for this emissions unit:
    - a. the volume of solvent containing cleaning agent employed, i.e., the sum of the volume of solvent within the parts washer at the beginning of the month and the volume of solvent added during the month subtracted from the volume of solvent remaining at the end of the month;
    - b. the VOC emissions, i.e., the volume of the solvent containing cleaning agent employed (from a. above) multiplied by the VOC content of the agent, and finally multiplied by a safety factor of 110%;
    - c. the number of hours the vacuum parts washer operated; and
    - d. the average hourly emission rate, i.e., the monthly VOC emissions (from b. above) divided by the number of hours operated (from c. above).
- e) Reporting Requirements
  - (1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:
    - a. average hourly VOC emissions limitation of 3.98 lbs; and
    - b. the use of halogenated solvents.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.



The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

3.98 lbs VOC/hr, as a monthly average

Applicable Compliance Method:

The hourly VOC emission limitation was established by the following calculation:

$$ER = [(U \times VOC)/OH] (SF)$$

Where:

ER = the average hourly VOC emission rate;

U = the maximum monthly usage of solvent containing cleaning agent (375.164 gal);

VOC = the VOC content of the solvent containing cleaning agent (7.18 lbs/gal);

OH = the monthly operating hours (744 hrs); and

SF = the safety factor of 110%

Compliance with the hourly VOC emissions limitations shall be demonstrated through the record keeping in d)(2).

b. Emission Limitation:

17.43 tons VOC per year

Applicable Compliance Method:

The annual VOC emission limitation was established by the following calculation:

$$Eann = ER \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where:

Eann = the annual VOC emission rate; and

ER = the average hourly VOC emission rate.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Title V Permit**  
**Permit Number:** P0105494  
**Facility ID:** 0546000101  
**Effective Date:** 11/2/2009

Compliance with the annual VOC emissions limitations shall be demonstrated through compliance with the average hourly emission limitation per the record keeping in d)(2).

- (2) Formulation data or USEPA Method 24 shall be used to determine the volatile organic compound content of materials added to this emissions unit.

g) Miscellaneous Requirements

- (1) None.



**4. P026, Dynamometer #1, 2 & 3**

**Operations, Property and/or Equipment Description:**

Dynamometer #1, 2 & 3 w/ Thermal Oxidizer (TO installed 7/11/2005)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13775)	Particulate emissions (PE) shall not exceed 0.39 pounds per hour and 1.71 tons per year.  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.29 pounds per hour and 1.27 tons per year.  Nitrogen oxide (NO <sub>x</sub> ) emissions shall not exceed 5.55 pounds per hour and 24.31 tons per year.  Volatile Organic compounds (VOC) emissions shall not exceed 0.98 pounds per hour and 4.29 tons per year.  Carbon monoxide (CO) emissions shall not exceed 16.54 pounds per hour and 72.45 tons per year.  b)(2)a, and b)(2)e, below.
b.	OAC rule 3745-17-07(A)	b)(2)b, below.
c.	OAC rule 3745-17-11	b)(2)c, below.
d.	OAC rule 3745-18-06(G)	b)(2)d, below.
e.	OAC rule 3745-21-07(B)	b)(2)f, below.

(2) Additional Terms and Conditions

a. The pound per hour and ton per year limitations reflect the potential to emit for this emissions unit. Therefore, it is not necessary to establish record keeping and reporting requirements to ensure compliance with these limitations.



- b. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- c. The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(I), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.\*

\* The only materials introduced into this process are gaseous fuels and liquid fuels that are used solely as fuels for the purpose of combustion.

- d. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(G) pursuant to OAC rule 3745-18-06(B).
- e. The use of the thermal oxidizer on this emissions unit constitutes parts of BAT requirements of OAC rule 3745-31-05(A)(3).
- f. On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (G); therefore, paragraph (G) is no longer part of the State regulations. However, that rule revision has not been approved by the U.S.EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs to OAC rule 3745-21-07, the requirement of the previous OAC rule 3745-21-07(G) still exists as part of the federally-approved SIP for Ohio.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the terms and conditions within this permit which are required by previous OAC rule 3745-21-07(G) will not be required and will not be federally and/or state enforceable.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the permittee shall take immediate steps to assure compliance with any and all requirements of the revised OAC rule and/or SIP.

c) Operational Restrictions

- (1) The permittee shall employ only unleaded fuel when operating this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.



- (2) The permittee shall collect and record the following information for each day:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

For each day when the permittee burns a fuel other than unleaded fuel when operating this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. These reports shall be submitted in accordance with Part I, General Terms and Conditions, of this permit.
- (2) The permittee shall submit deviation (excursion) reports to Ohio EPA, Southwest District Office, that identify each day when a fuel other than unleaded fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the event occurs.
- (3) If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1). of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitations:
    - 0.39 lb of PE/hr and 1.71 TPY PE;
    - 0.29 lb of SO<sub>2</sub>/hr and 1.27 TPY SO<sub>2</sub>; and
    - 5.55 lbs of NO<sub>x</sub>/hr and 24.31 TPY NO<sub>x</sub>.



Applicable Compliance Method:

The hourly PE, SO<sub>2</sub> and NO<sub>x</sub> emission limitation were established as follows:

$$E_r = [(EF) \times (U) \times (3 \text{ dyno stands}) + (7,000,000 \text{ Btu/hr}) \times (\text{scf}/1,020 \text{ Btu}) \times (EE)] \times (1 + SF)$$

Where:

$E_r$  = the maximum hourly emission rate;

EF = the emissions factor of 0.004 lb PE/gallon, 0.003 lb SO<sub>2</sub>/gal or 0.05 lb NO<sub>x</sub>/gal, as applicable (Based on June 2001 emission test at HRA-O);

U = the maximum gas usage rate of 25 gallons per hour per testing dynamometer;

EE = the emission factor for natural gas combustion, 1.9 lbs PE/million scf, 0.6 lb SO<sub>2</sub>/million scf, or 100 lbs NO<sub>x</sub>/million scf, as applicable (from AP-42, Tables 1.4-1 and 1.4-2, revised 7/98); and

SF = the safety factor of 0.25 as proposed by Honda to account for system variability.

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with Methods 5, 6, or 7, as appropriate, of 40 CFR, Part 60, Appendix A.

The annual PE, SO<sub>2</sub> and NO<sub>x</sub> emissions limitation were established by multiplying the maximum hourly emission rate for each respective pollutant by 8,760 hours per year, and then dividing the result by 2000 lbs per ton.

b. Emissions Limitations:

0.98 lb VOC/hr and 4.29 TPY VOC

Applicable Compliance Method:

The hourly VOC emission limitation was established as follows:

$$E_r = [(EF) \times (U) \times (3 \text{ dyno stands}) \times (1 - DRE) + (7,000,000 \text{ Btu/hr}) \times (\text{scf}/1,020 \text{ Btu}) \times (EE)] \times (1 + SF)$$

Where:

$E_r$  = the maximum hourly VOC emission rate;

EF = the emissions factor of 0.2 lb VOC/gallon (Based on June 2001 emission test at HRA-O);

U = the maximum gas usage rate of 25 gallons per hour per testing dynamometer;



DRE = the destruction removal efficiency of the thermal oxidizer, 95% or 0.95;

EE = the emission factor for natural gas combustion, 5.5 lbs VOC/million scf (from AP-42, Table 1.4-2, revised 7/98); and

SF = the safety factor of 0.25 as proposed by Honda to account for system variability.

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with Methods 18, 25 or 25A as appropriate, of 40 CFR, Part 60, Appendix A.

The annual VOC emission limitation was established by multiplying the maximum hourly emission rate of 0.98 lb/hr by 8,760 hours per year, and then dividing the result by 2000 lbs per ton.

c. Emissions Limitations:

16.54 lbs CO/hr and 72.45 TPY CO

Applicable Compliance Method:

The hourly CO emission limitation was established as follows:

$$E_r = [(EF) \times (3 \text{ dyno stands}) \times (1 - DRE)] + [(7,000,000 \text{ Btu/hr}) \times (\text{scf}/1,020 \text{ Btu}) \times (EE)]$$

Where:

$E_r$  = the maximum hourly CO emission rate;

EF = the emissions factor of 106.4 lb/hr prior to control (Based on Honda Transmission 12/21/04 emission test results for this emissions unit with 10% increase);

DRE = the destruction removal efficiency of the thermal oxidizer, 95% or 0.95; and

EE = the emission factor for natural gas combustion, 84 lbs CO/million scf (from AP-42, Table 1.4-1, revised 7/98).

If required, the permittee shall demonstrate compliance based on the results of emission testing conducted in accordance with Methods 10, as appropriate, of 40 CFR, Part 60, Appendix A.

The annual CO emissions limitation was established by multiplying the maximum hourly emission rate of 16.54 by 8,760 hours per year, and then dividing the result by 2000 lbs per ton.

- (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 6 months of the expiration of this permit.
- b. The emission testing shall be conducted to demonstrate compliance for allowable emissions limitations for CO and NOx.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates for both CO and NOx and control efficiency for CO only:
  - i. CO: Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and
  - ii. NOx: Methods 1-4 and 7 or 7A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southwest District Office.

- (3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**5. P027, Carb 1 - Carburizing Furnace**

**Operations, Property and/or Equipment Description:**

Heat Treat Gears

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	Particulate emissions (PE) shall not exceed 0.14 pound per hour and 0.61 ton per year.  Nitrogen oxide (NOx) emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.  Carbon monoxide (CO) emissions shall not exceed 2.23 pounds per hour and 9.77 tons per year.  Organic compound (OC) emissions shall not exceed 1.10 pounds per hour and 4.82 tons per year.  Sulfur dioxide (SO2) emissions shall not exceed 0.17 pound per hour and 0.75 ton per year.  Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).  Visible PE shall not exceed 5% opacity, as a 6-minute average.  b)(2)a, below.
b.	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)(2)	The SO2 emissions limitation specified by this rule is less stringent than the limitation



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(G)	The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.14 lb PE/hr and 0.61 TPY PE

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$PER = [ERht + (NG \times EF) + (BBTU \times 1/BCONV \times EF)] \times (1 + SF)$$

Where:

PER = the maximum hourly PE rate;

ERht = 0.1 lb/hr, the test results from similar heat treat source on 2/9/95 at AEP;

NG = the maximum hourly combined natural gas usage, 3,700 cf;

EF = the particulate emission factor of 1.9 lb/mmcf, from AP-42, Table 1.4-2, 7/98;

BBTU = burner BTU/hr for (2) endo generators (3,554,102 BTU/hr);



BCONV = BTU to scf conversion factor (1,020 BTU/scf); and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual PE limitation was established by multiplying the maximum hourly PE rate, 0.14 lb/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

b. Emission Limitation:

2.23 lbs CO/hr and 9.77 TPY CO

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$CER = [ER_{ht} + ER_{reg} + (NG \times EF)] \times (1 + SF)$$

Where:

CER = the maximum hourly CO emission rate;

ER<sub>ht</sub> = 1.45 lbs/hr, the test results from similar heat treat source on 3/20/03 at AEP;

ER<sub>reg</sub> = 0.02 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;

EF = the CO emission factor of 84 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor for variability error of 0.25

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual CO limitation was established by multiplying the maximum hourly CO emission rate, 2.23 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

c. Emission Limitation:

1.06 lbs NO<sub>x</sub>/hr and 4.64 TPY NO<sub>x</sub>



Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

NER = the maximum hourly NOx emission rate;

ERht = 0.22 lb/hr, the test results from similar heat treat source on 08/17/04 at Trutech;

EReg = 0.01 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat 3,700 cf;

EF = the NOx emission factor of 100 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor based upon size of unit compared to size of tested unit, 3.0.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual NOx limitation was established by multiplying the maximum hourly NOx emission rate, 1.06 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton. the result by 2000 lbs per ton.

d. Emission Limitation:

1.1 lbs OC/hr and 4.82 TPY OC

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$OER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

OER = the maximum hourly OC emission rate;

ERht = 0.8 lb/hr, the test results from similar heat treat source on 3/20/03 at AEP;

EReg = 0.06 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage of heat treat, 3,700 cf;



EF = the OC emission factor of 5.5 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and  
SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 18 or 25, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual OC limitation was established by multiplying the maximum hourly OC emission rate, 1.1 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

e. Emission Limitation:

0.17 lbs SO<sub>2</sub>/hr and 0.75 TPY SO<sub>2</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$SER = [ER_{ht} + ER_{reg} + (NG \times EF)] \times (1 + SF)$$

Where:

SER = the maximum hourly SO<sub>2</sub> emission rate;

ER<sub>ht</sub> = 0.07 lb/hr, the test results from similar heat treat source on 7/23/03 at Trutech;

ER<sub>reg</sub> = 0.06 lb/hr, the test results from similar endothermic generator source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;;

EF = the SO<sub>2</sub> emission factor of 0.6 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual SO<sub>2</sub> limitation was established by multiplying the maximum hourly SO<sub>2</sub> emission rate, 0.17 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.



f. Emission Limitation:

Visible particulate emissions from the roof vent(s) shall not exceed 5% percent opacity as a six-minute average.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

(2) When requested, emissions testing shall be conducted on this emissions unit. The emission testing shall be performed in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations.
- b. The following test methods shall be employed for both heat treat and the endothermic gas generators to demonstrate compliance:
  - i. Method 1 of 40 CFR, Part 60, Appendix A (for sample and velocity traverses);
  - ii. Method 2 of 40 CFR, Part 60, Appendix A (for velocity and volumetric flow rates);
  - iii. Method 3 of 40 CFR, Part 60, Appendix A (for molecular weight of dry gas stream);
  - iv. Method 4 of 40 CFR, Part 60, Appendix A (for moisture content of gas stream);
  - v. Method 7, as appropriate, of 40 CFR Part 60, Appendix A (for NO<sub>x</sub> emissions); and
  - vi. Method 10, as appropriate, of 40 CFR Part 60, Appendix A (for CO emissions).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA Southwest District Office.

(3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).



Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**6. P028, Carb 2 - Carburizing Furnace**

**Operations, Property and/or Equipment Description:**

Heat Treat Gears

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	<p>Particulate emissions (PE) shall not exceed 0.14 pound per hour and 0.61 ton per year.</p> <p>Nitrogen oxide (NOx) emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 2.23 pounds per hour and 9.77 tons per year.</p> <p>Organic compound (OC) emissions shall not exceed 1.10 pounds per hour and 4.82 tons per year.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 0.17 pound per hour and 0.75 ton per year.</p> <p>Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).</p> <p>Visible PE shall not exceed 5% opacity, as a 6-minute average.</p> <p>b)(2)a, below.</p>
b.	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)(2)	The SO2 emissions limitation specified by this rule is less stringent than the limitation



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(G)	The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

(1) Additional Terms and Conditions

a. The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the emission limitations specified in Section b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

0.14 lb PE/hr and 0.61 TPY PE

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$PER = [ER_{ht} + (NG \times EF) + (BBTU \times 1/BCONV \times EF)] \times (1 + SF)$$

Where:

PER = the maximum hourly PE rate;

ER<sub>ht</sub> = 0.1 lb/hr, the test results from similar heat treat source on 2/9/95 at AEP;

NG = the maximum hourly combined natural gas usage, 3,700 cf;

EF = the particulate emission factor of 1.9 lb/mmcf, from AP-42, Table 1.4-2, 7/98;

BBTU = burner BTU/hr for (2) endo generators (3,554,102 BTU/hr);



BCONV = BTU to scf conversion factor (1,020 BTU/scf); and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual PE limitation was established by multiplying the maximum hourly PE rate, 0.14 lb/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

b. Emission Limitation:

2.23 lbs CO/hr and 9.77 TPY CO

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$CER = [ER_{ht} + ER_{reg} + (NG \times EF)] \times (1 + SF)$$

Where:

CER = the maximum hourly CO emission rate;

ER<sub>ht</sub> = 1.45 lbs/hr, the test results from similar heat treat source on 3/20/03 at AEP;

ER<sub>reg</sub> = 0.02 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;

EF = the CO emission factor of 84 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor for variability error of 0.25

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual CO limitation was established by multiplying the maximum hourly CO emission rate, 2.23 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

c. Emission Limitation:

1.06 lbs NOx/hr and 4.64 TPY NOx



Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

NER = the maximum hourly NOx emission rate;

ERht = 0.22 lb/hr, the test results from similar heat treat source on 08/17/04 at Trutec;

EReg = 0.01 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat 3,700 cf;

EF = the NOx emission factor of 100 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor based upon size of unit compared to size of tested unit, 3.0.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual NOx limitation was established by multiplying the maximum hourly NOx emission rate, 1.06 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton. the result by 2000 lbs per ton.

d. Emission Limitation:

1.1 lbs OC/hr and 4.82 TPY OC

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$OER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

OER = the maximum hourly OC emission rate;

ERht = 0.8 lb/hr, the test results from similar heat treat source on 3/20/03 at AEP;



EReg = 0.06 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage of heat treat, 3,700 cf;

EF = the OC emission factor of 5.5 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 18 or 25, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual OC limitation was established by multiplying the maximum hourly OC emission rate, 1.1 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

e. Emission Limitation:

0.17 lbs SO<sub>2</sub>/hr and 0.75 TPY SO<sub>2</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$SER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

SER = the maximum hourly SO<sub>2</sub> emission rate;

ERht = 0.07 lb/hr, the test results from similar heat treat source on 7/23/03 at Trutech;

EReg = 0.06 lb/hr, the test results from similar endothermic generator source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;;

EF = the SO<sub>2</sub> emission factor of 0.6 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



The annual SO<sub>2</sub> limitation was established by multiplying the maximum hourly SO<sub>2</sub> emission rate, 0.17 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

f. Emission Limitation:

Visible particulate emissions from the roof vent(s) shall not exceed 5% percent opacity as a six-minute average.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

(2) When requested, emissions testing shall be conducted on this emissions unit. The emission testing shall be performed in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations.
- b. The following test methods shall be employed for both heat treat and the endothermic gas generators to demonstrate compliance:
  - i. Method 1 of 40 CFR, Part 60, Appendix A (for sample and velocity traverses);
  - ii. Method 2 of 40 CFR, Part 60, Appendix A (for velocity and volumetric flow rates);
  - iii. Method 3 of 40 CFR, Part 60, Appendix A (for molecular weight of dry gas stream);
  - iv. Method 4 of 40 CFR, Part 60, Appendix A (for moisture content of gas stream);
  - v. Method 7, as appropriate, of 40 CFR Part 60, Appendix A (for NO<sub>x</sub> emissions); and
  - vi. Method 10, as appropriate, of 40 CFR Part 60, Appendix A (for CO emissions).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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

(3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**7. P029, Carb 3 - Carburizing Furnace**

**Operations, Property and/or Equipment Description:**

Heat Treat Gears

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	<p>Particulate emissions (PE) shall not exceed 0.14 pound per hour and 0.61 ton per year.</p> <p>Nitrogen oxide (NOx) emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 2.23 pounds per hour and 9.77 tons per year.</p> <p>Organic compound (OC) emissions shall not exceed 1.10 pounds per hour and 4.82 tons per year.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 0.17 pound per hour and 0.75 ton per year.</p> <p>Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).</p> <p>Visible PE shall not exceed 5% opacity, as a 6-minute average.</p> <p>b)(2)a, below.</p>
b.	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		31-05(A)(3).
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)(2)	The SO2 emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(G)	The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

(1) Additional Terms and Conditions

- a. The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) None.

e) Reporting Requirements

- (1) None.

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

0.14 lb PE/hr and 0.61 TPY PE

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$PER = [ERht + (NG \times EF) + (BBTU \times 1/BCONV \times EF)] \times (1 + SF)$$

Where:

PER = the maximum hourly PE rate;



ERht = 0.1 lb/hr, the test results from similar heat treat source on 2/9/95 at AEP;

NG = the maximum hourly combined natural gas usage, 3,700 cf;

EF = the particulate emission factor of 1.9 lb/mmcf, from AP-42, Table 1.4-2, 7/98;

BBTU = burner BTU/hr for (2) endo generators (3,554,102 BTU/hr);

BCONV = BTU to scf conversion factor (1,020 BTU/scf); and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual PE limitation was established by multiplying the maximum hourly PE rate, 0.14 lb/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

b. Emission Limitation:

2.23 lbs CO/hr and 9.77 TPY CO

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$\text{CER} = [\text{ERht} + \text{EReg} + (\text{NG} \times \text{EF})] \times (1 + \text{SF})$$

Where:

CER = the maximum hourly CO emission rate;

ERht = 1.45 lbs/hr, the test results from similar heat treat source on 3/20/03 at AEP;

EReg = 0.02 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;

EF = the CO emission factor of 84 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor for variability error of 0.25

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



The annual CO limitation was established by multiplying the maximum hourly CO emission rate, 2.23 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

c. Emission Limitation:

1.06 lbs NOx/hr and 4.64 TPY NOx

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$NER = [(ER_{ht} + ER_{reg}) \times SF] + (NG \times EF)$$

Where:

$$NER = [(ER_{ht} + ER_{reg}) \times SF] + (NG \times EF)$$

Where:

NER = the maximum hourly NOx emission rate;

ER<sub>ht</sub> = 0.22 lb/hr, the test results from similar heat treat source on 08/17/04 at Trutec;

ER<sub>reg</sub> = 0.01 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat 3,700 cf;

EF = the NOx emission factor of 100 lb/mmmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor based upon size of unit compared to size of tested unit, 3.0.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual NOx limitation was established by multiplying the maximum hourly NOx emission rate, 1.06 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton. the result by 2000 lbs per ton.

d. Emission Limitation:

1.1 lbs OC/hr and 4.82 TPY OC

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:



$$OER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

OER = the maximum hourly OC emission rate;

ERht = 0.8 lb/hr, the test results from similar heat treat source on 3/20/03 at AEP;

EReg = 0.06 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage of heat treat, 3,700 cf;

EF = the OC emission factor of 5.5 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 18 or 25, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual OC limitation was established by multiplying the maximum hourly OC emission rate, 1.1 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

e. Emission Limitation:

0.17 lbs SO<sub>2</sub>/hr and 0.75 TPY SO<sub>2</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$SER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

SER = the maximum hourly SO<sub>2</sub> emission rate;

ERht = 0.07 lb/hr, the test results from similar heat treat source on 7/23/03 at Trutec;

EReg = 0.06 lb/hr, the test results from similar endothermic generator source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;;

EF = the SO<sub>2</sub> emission factor of 0.6 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.



If required, the permittee shall demonstrate compliance with the hourly SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual SO<sub>2</sub> limitation was established by multiplying the maximum hourly SO<sub>2</sub> emission rate, 0.17 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

f. Emission Limitation:

Visible particulate emissions from the roof vent(s) shall not exceed 5% percent opacity as a six-minute average.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

(2) When requested, emissions testing shall be conducted on this emissions unit. The emission testing shall be performed in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations.
- b. The following test methods shall be employed for both heat treat and the endothermic gas generators to demonstrate compliance:
  - i. Method 1 of 40 CFR, Part 60, Appendix A (for sample and velocity traverses);
  - ii. Method 2 of 40 CFR, Part 60, Appendix A (for velocity and volumetric flow rates);
  - iii. Method 3 of 40 CFR, Part 60, Appendix A (for molecular weight of dry gas stream);
  - iv. Method 4 of 40 CFR, Part 60, Appendix A (for moisture content of gas stream);
  - v. Method 7, as appropriate, of 40 CFR Part 60, Appendix A (for NO<sub>x</sub> emissions); and
  - vi. Method 10, as appropriate, of 40 CFR Part 60, Appendix A (for CO emissions).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA Southwest District Office.



- (3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**8. P030, Carb 4 - Carburizing Furnace**

**Operations, Property and/or Equipment Description:**

Heat Treat Gears

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	Particulate emissions (PE) shall not exceed 0.14 pound per hour and 0.61 ton per year.  Nitrogen oxide (NOx) emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.  Carbon monoxide (CO) emissions shall not exceed 2.23 pounds per hour and 9.77 tons per year.  Organic compound (OC) emissions shall not exceed 1.10 pounds per hour and 4.82 tons per year.  Sulfur dioxide (SO2) emissions shall not exceed 0.17 pound per hour and 0.75 ton per year.  Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).  Visible PE shall not exceed 5% opacity, as a 6-minute average.  b)(2)a, below.
b.	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)(2)	The SO2 emissions limitation specified by this rule is less stringent than the limitation



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(G)	The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

(1) Additional Terms and Conditions

a. The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.14 lb PE/hr and 0.61 TPY PE

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$PER = [ERht + (NG \times EF) + (BBTU \times 1/BCONV \times EF)] \times (1 + SF)$$

Where:

PER = the maximum hourly PE rate;

ERht = 0.1 lb/hr, the test results from similar heat treat source on 2/9/95 at AEP;

NG = the maximum hourly combined natural gas usage, 3,700 cf;

EF = the particulate emission factor of 1.9 lb/mmcf, from AP-42, Table 1.4-2, 7/98;

BBTU = burner BTU/hr for (2) endo generators (3,554,102 BTU/hr);



BCONV = BTU to scf conversion factor (1,020 BTU/scf); and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual PE limitation was established by multiplying the maximum hourly PE rate, 0.14 lb/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

b. Emission Limitation:

2.23 lbs CO/hr and 9.77 TPY CO

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$CER = [ER_{ht} + ER_{reg} + (NG \times EF)] \times (1 + SF)$$

Where:

CER = the maximum hourly CO emission rate;

ER<sub>ht</sub> = 1.45 lbs/hr, the test results from similar heat treat source on 3/20/03 at AEP;

ER<sub>reg</sub> = 0.02 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;

EF = the CO emission factor of 84 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor for variability error of 0.25

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual CO limitation was established by multiplying the maximum hourly CO emission rate, 2.23 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

c. Emission Limitation:

1.06 lbs NOx/hr and 4.64 TPY NOx



Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

NER = the maximum hourly NOx emission rate;

ERht = 0.22 lb/hr, the test results from similar heat treat source on 08/17/04 at Trutec;

EReg = 0.01 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat 3,700 cf;

EF = the NOx emission factor of 100 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor based upon size of unit compared to size of tested unit, 3.0.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual NOx limitation was established by multiplying the maximum hourly NOx emission rate, 1.06 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton. the result by 2000 lbs per ton.

d. Emission Limitation:

1.1 lbs OC/hr and 4.82 TPY OC

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$OER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

OER = the maximum hourly OC emission rate;

ERht = 0.8 lb/hr, the test results from similar heat treat source on 3/20/03 at AEP;



EReg = 0.06 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage of heat treat, 3,700 cf;

EF = the OC emission factor of 5.5 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 18 or 25, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual OC limitation was established by multiplying the maximum hourly OC emission rate, 1.1 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

e. Emission Limitation:

0.17 lbs SO<sub>2</sub>/hr and 0.75 TPY SO<sub>2</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$SER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

SER = the maximum hourly SO<sub>2</sub> emission rate;

ERht = 0.07 lb/hr, the test results from similar heat treat source on 7/23/03 at Trutech;

EReg = 0.06 lb/hr, the test results from similar endothermic generator source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;;

EF = the SO<sub>2</sub> emission factor of 0.6 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



The annual SO<sub>2</sub> limitation was established by multiplying the maximum hourly SO<sub>2</sub> emission rate, 0.17 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

f. Emission Limitation:

Visible particulate emissions from the roof vent(s) shall not exceed 5% percent opacity as a six-minute average.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

(2) When requested, emissions testing shall be conducted on this emissions unit. The emission testing shall be performed in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations.
- b. The following test methods shall be employed for both heat treat and the endothermic gas generators to demonstrate compliance:
  - i. Method 1 of 40 CFR, Part 60, Appendix A (for sample and velocity traverses);
  - ii. Method 2 of 40 CFR, Part 60, Appendix A (for velocity and volumetric flow rates);
  - iii. Method 3 of 40 CFR, Part 60, Appendix A (for molecular weight of dry gas stream);
  - iv. Method 4 of 40 CFR, Part 60, Appendix A (for moisture content of gas stream);
  - v. Method 7, as appropriate, of 40 CFR Part 60, Appendix A (for NO<sub>x</sub> emissions); and
  - vi. Method 10, as appropriate, of 40 CFR Part 60, Appendix A (for CO emissions).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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

(3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**9. P031, Carb 5 - Carburizing Furnace**

**Operations, Property and/or Equipment Description:**

Heat Treat Gears

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	Particulate emissions (PE) shall not exceed 0.14 pound per hour and 0.61 ton per year.  Nitrogen oxide (NOx) emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.  Carbon monoxide (CO) emissions shall not exceed 2.23 pounds per hour and 9.77 tons per year.  Organic compound (OC) emissions shall not exceed 1.10 pounds per hour and 4.82 tons per year.  Sulfur dioxide (SO2) emissions shall not exceed 0.17 pound per hour and 0.75 ton per year.  Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).  Visible PE shall not exceed 5% opacity, as a 6-minute average.  b)(2)a, below.
b.	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)(2)	The SO2 emissions limitation specified by this rule is less stringent than the limitation



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(G)	The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.14 lb PE/hr and 0.61 TPY PE

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$PER = [ER_{ht} + (NG \times EF) + (BBTU \times 1/BCONV \times EF)] \times (1 + SF)$$

Where:

PER = the maximum hourly PE rate;

ER<sub>ht</sub> = 0.1 lb/hr, the test results from similar heat treat source on 2/9/95 at AEP;

NG = the maximum hourly combined natural gas usage, 3,700 cf;

EF = the particulate emission factor of 1.9 lb/mmcf, from AP-42, Table 1.4-2, 7/98;



BBTU = burner BTU/hr for (2) endo generators (3,554,102 BTU/hr);

BCONV = BTU to scf conversion factor (1,020 BTU/scf); and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual PE limitation was established by multiplying the maximum hourly PE rate, 0.14 lb/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

b. Emission Limitation:

2.23 lbs CO/hr and 9.77 TPY CO

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$\text{CER} = [\text{ERht} + \text{EReg} + (\text{NG} \times \text{EF})] \times (1 + \text{SF})$$

Where:

CER = the maximum hourly CO emission rate;

ERht = 1.45 lbs/hr, the test results from similar heat treat source on 3/20/03 at AEP;

EReg = 0.02 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;

EF = the CO emission factor of 84 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor for variability error of 0.25

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual CO limitation was established by multiplying the maximum hourly CO emission rate, 2.23 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.



c. Emission Limitation:

1.06 lbs NO<sub>x</sub>/hr and 4.64 TPY NO<sub>x</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$\text{NER} = [(\text{ERht} + \text{EReg}) \times \text{SF}] + (\text{NG} \times \text{EF})$$

Where:

$$\text{NER} = [(\text{ERht} + \text{EReg}) \times \text{SF}] + (\text{NG} \times \text{EF})$$

Where:

NER = the maximum hourly NO<sub>x</sub> emission rate;

ERht = 0.22 lb/hr, the test results from similar heat treat source on 08/17/04 at Trutec;

EReg = 0.01 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat 3,700 cf;

EF = the NO<sub>x</sub> emission factor of 100 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor based upon size of unit compared to size of tested unit, 3.0.

If required, the permittee shall demonstrate compliance with the hourly NO<sub>x</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual NO<sub>x</sub> limitation was established by multiplying the maximum hourly NO<sub>x</sub> emission rate, 1.06 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton. the result by 2000 lbs per ton.

d. Emission Limitation:

1.1 lbs OC/hr and 4.82 TPY OC

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$\text{OER} = [\text{ERht} + \text{EReg} + (\text{NG} \times \text{EF})] \times (1 + \text{SF})$$



Where:

OER = the maximum hourly OC emission rate;

ERht = 0.8 lb/hr, the test results from similar heat treat source on 3/20/03 at AEP;

EReg = 0.06 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage of heat treat, 3,700 cf;

EF = the OC emission factor of 5.5 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 18 or 25, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual OC limitation was established by multiplying the maximum hourly OC emission rate, 1.1 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

e. Emission Limitation:

0.17 lbs SO<sub>2</sub>/hr and 0.75 TPY SO<sub>2</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$SER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

SER = the maximum hourly SO<sub>2</sub> emission rate;

ERht = 0.07 lb/hr, the test results from similar heat treat source on 7/23/03 at Trutec;

EReg = 0.06 lb/hr, the test results from similar endothermic generator source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;;

EF = the SO<sub>2</sub> emission factor of 0.6 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR



Part 60, Appendix A, Methods 1-4, and 6, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual SO<sub>2</sub> limitation was established by multiplying the maximum hourly SO<sub>2</sub> emission rate, 0.17 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

f. Emission Limitation:

Visible particulate emissions from the roof vent(s) shall not exceed 5% percent opacity as a six-minute average.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

(2) When requested, emissions testing shall be conducted on this emissions unit. The emission testing shall be performed in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations.
- b. The following test methods shall be employed for both heat treat and the endothermic gas generators to demonstrate compliance:
  - i. Method 1 of 40 CFR, Part 60, Appendix A (for sample and velocity traverses);
  - ii. Method 2 of 40 CFR, Part 60, Appendix A (for velocity and volumetric flow rates);
  - iii. Method 3 of 40 CFR, Part 60, Appendix A (for molecular weight of dry gas stream);
  - iv. Method 4 of 40 CFR, Part 60, Appendix A (for moisture content of gas stream);
  - v. Method 7, as appropriate, of 40 CFR Part 60, Appendix A (for NO<sub>x</sub> emissions); and
  - vi. Method 10, as appropriate, of 40 CFR Part 60, Appendix A (for CO emissions).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA Southwest District Office.



- (3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**10. P033, Carb 7 - Carburizing Furnace**

**Operations, Property and/or Equipment Description:**

Heat Treat Gears

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	<p>Particulate emissions (PE) shall not exceed 0.14 pound per hour and 0.61 ton per year.</p> <p>Nitrogen oxide (NOx) emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 2.23 pounds per hour and 9.77 tons per year.</p> <p>Organic compound (OC) emissions shall not exceed 1.10 pounds per hour and 4.82 tons per year.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 0.17 pound per hour and 0.75 ton per year.</p> <p>Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).</p> <p>Visible PE shall not exceed 5% opacity, as a 6-minute average.</p> <p>b)(2)a, below.</p>
b.	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)(2)	The SO2 emissions limitation specified by this rule is less stringent than the limitation



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(G)	The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.14 lb PE/hr and 0.61 TPY PE

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$PER = [ER_{ht} + (NG \times EF) + (BBTU \times 1/BCONV \times EF)] \times (1 + SF)$$

Where:

PER = the maximum hourly PE rate;

ER<sub>ht</sub> = 0.1 lb/hr, the test results from similar heat treat source on 2/9/95 at AEP;

NG = the maximum hourly combined natural gas usage, 3,700 cf;

EF = the particulate emission factor of 1.9 lb/mmcf, from AP-42, Table 1.4-2, 7/98;

BBTU = burner BTU/hr for (2) endo generators (3,554,102 BTU/hr);



BCONV = BTU to scf conversion factor (1,020 BTU/scf); and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual PE limitation was established by multiplying the maximum hourly PE rate, 0.14 lb/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

b. Emission Limitation:

2.23 lbs CO/hr and 9.77 TPY CO

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$CER = [ER_{ht} + ER_{reg} + (NG \times EF)] \times (1 + SF)$$

Where:

CER = the maximum hourly CO emission rate;

ER<sub>ht</sub> = 1.45 lbs/hr, the test results from similar heat treat source on 3/20/03 at AEP;

ER<sub>reg</sub> = 0.02 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;

EF = the CO emission factor of 84 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor for variability error of 0.25

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual CO limitation was established by multiplying the maximum hourly CO emission rate, 2.23 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

c. Emission Limitation:

1.06 lbs NOx/hr and 4.64 TPY NOx



Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

NER = the maximum hourly NOx emission rate;

ERht = 0.22 lb/hr, the test results from similar heat treat source on 08/17/04 at Trutec;

EReg = 0.01 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat 3,700 cf;

EF = the NOx emission factor of 100 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor based upon size of unit compared to size of tested unit, 3.0.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual NOx limitation was established by multiplying the maximum hourly NOx emission rate, 1.06 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton. the result by 2000 lbs per ton.

d. Emission Limitation:

1.1 lbs OC/hr and 4.82 TPY OC

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$OER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

OER = the maximum hourly OC emission rate;

ERht = 0.8 lb/hr, the test results from similar heat treat source on 3/20/03 at AEP;



EReg = 0.06 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage of heat treat, 3,700 cf;

EF = the OC emission factor of 5.5 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 18 or 25, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual OC limitation was established by multiplying the maximum hourly OC emission rate, 1.1 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

e. Emission Limitation:

0.17 lbs SO<sub>2</sub>/hr and 0.75 TPY SO<sub>2</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$SER = [ER_{ht} + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

SER = the maximum hourly SO<sub>2</sub> emission rate;

ER<sub>ht</sub> = 0.07 lb/hr, the test results from similar heat treat source on 7/23/03 at Trutech;

EReg = 0.06 lb/hr, the test results from similar endothermic generator source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;;

EF = the SO<sub>2</sub> emission factor of 0.6 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



The annual SO<sub>2</sub> limitation was established by multiplying the maximum hourly SO<sub>2</sub> emission rate, 0.17 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

f. Emission Limitation:

Visible particulate emissions from the roof vent(s) shall not exceed 5% percent opacity as a six-minute average.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

(2) When requested, emissions testing shall be conducted on this emissions unit. The emission testing shall be performed in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations.
- b. The following test methods shall be employed for both heat treat and the endothermic gas generators to demonstrate compliance:
  - i. Method 1 of 40 CFR, Part 60, Appendix A (for sample and velocity traverses);
  - ii. Method 2 of 40 CFR, Part 60, Appendix A (for velocity and volumetric flow rates);
  - iii. Method 3 of 40 CFR, Part 60, Appendix A (for molecular weight of dry gas stream);
  - iv. Method 4 of 40 CFR, Part 60, Appendix A (for moisture content of gas stream);
  - v. Method 7, as appropriate, of 40 CFR Part 60, Appendix A (for NO<sub>x</sub> emissions); and
  - vi. Method 10, as appropriate, of 40 CFR Part 60, Appendix A (for CO emissions).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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

(3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**11. P034, Carb 8 - Carburizing Furnace**

**Operations, Property and/or Equipment Description:**

Heat Treat Gears

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and (PTI 05-13647)	<p>Particulate emissions (PE) shall not exceed 0.14 pound per hour and 0.61 ton per year.</p> <p>Nitrogen oxide (NOx) emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 2.23 pounds per hour and 9.77 tons per year.</p> <p>Organic compound (OC) emissions shall not exceed 1.10 pounds per hour and 4.82 tons per year.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 0.17 pound per hour and 0.75 ton per year.</p> <p>Compliance with this rule also includes compliance with OAC rule 3745-17-07(A)(1).</p> <p>Visible PE shall not exceed 5% opacity, as a 6-minute average.</p> <p>b)(2)a, below.</p>
b.	OAC rule 3745-17-07(A)(1)	The visible PE limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)(2)	The SO2 emissions limitation specified by this rule is less stringent than the limitation



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-21-07(G)	The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The emissions limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.14 lb PE/hr and 0.61 TPY PE

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$PER = [ERht + (NG \times EF) + (BBTU \times 1/BCONV \times EF)] \times (1 + SF)$$

Where:

PER = the maximum hourly PE rate;

ERht = 0.1 lb/hr, the test results from similar heat treat source on 2/9/95 at AEP;

NG = the maximum hourly combined natural gas usage, 3,700 cf;

EF = the particulate emission factor of 1.9 lb/mmcf, from AP-42, Table 1.4-2, 7/98;

BBTU = burner BTU/hr for (2) endo generators (3,554,102 BTU/hr);



BCONV = BTU to scf conversion factor (1,020 BTU/scf); and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual PE limitation was established by multiplying the maximum hourly PE rate, 0.14 lb/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

b. Emission Limitation:

2.23 lbs CO/hr and 9.77 TPY CO

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$CER = [ER_{ht} + ER_{reg} + (NG \times EF)] \times (1 + SF)$$

Where:

CER = the maximum hourly CO emission rate;

ER<sub>ht</sub> = 1.45 lbs/hr, the test results from similar heat treat source on 3/20/03 at AEP;

ER<sub>reg</sub> = 0.02 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;

EF = the CO emission factor of 84 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor for variability error of 0.25

If required, the permittee shall demonstrate compliance with the hourly CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual CO limitation was established by multiplying the maximum hourly CO emission rate, 2.23 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

c. Emission Limitation:

1.06 lbs NOx/hr and 4.64 TPY NOx



Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

$$NER = [(ERht + EReg) \times SF] + (NG \times EF)$$

Where:

NER = the maximum hourly NOx emission rate;

ERht = 0.22 lb/hr, the test results from similar heat treat source on 08/17/04 at Trutec;

EReg = 0.01 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat 3,700 cf;

EF = the NOx emission factor of 100 lb/mmcf, from AP-42, Table 1.4-1, 7/98; and

SF = the assumed safety factor based upon size of unit compared to size of tested unit, 3.0.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7 as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual NOx limitation was established by multiplying the maximum hourly NOx emission rate, 1.06 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton. the result by 2000 lbs per ton.

d. Emission Limitation:

1.1 lbs OC/hr and 4.82 TPY OC

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$OER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

OER = the maximum hourly OC emission rate;

ERht = 0.8 lb/hr, the test results from similar heat treat source on 3/20/03 at AEP;



EReg = 0.06 lb/hr, the test results from similar endothermic generation source on 10/24/01 at AEP;

NG = the hourly natural gas usage of heat treat, 3,700 cf;

EF = the OC emission factor of 5.5 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 18 or 25, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

The annual OC limitation was established by multiplying the maximum hourly OC emission rate, 1.1 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

e. Emission Limitation:

0.17 lbs SO<sub>2</sub>/hr and 0.75 TPY SO<sub>2</sub>

Applicable Compliance Method:

The hourly emission limitation represents the emissions unit's potential to emit and was established by the following methodology:

$$SER = [ERht + EReg + (NG \times EF)] \times (1 + SF)$$

Where:

SER = the maximum hourly SO<sub>2</sub> emission rate;

ERht = 0.07 lb/hr, the test results from similar heat treat source on 7/23/03 at Trutech;

EReg = 0.06 lb/hr, the test results from similar endothermic generator source on 10/24/01 at AEP;

NG = the hourly natural gas usage for heat treat, 3,700 cf;;

EF = the SO<sub>2</sub> emission factor of 0.6 lbs/mmcf, from AP-42, Table 1.4-2, 7/98; and

SF = the assumed safety factor for variability error of 0.25.

If required, the permittee shall demonstrate compliance with the hourly SO<sub>2</sub> emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6, as appropriate. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



The annual SO<sub>2</sub> limitation was established by multiplying the maximum hourly SO<sub>2</sub> emission rate, 0.17 lbs/hr, by the maximum hours per year, 8,760 hours, and dividing the result by 2000 lbs/ton.

f. Emission Limitation:

Visible particulate emissions from the roof vent(s) shall not exceed 5% percent opacity as a six-minute average.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

(2) When requested, emissions testing shall be conducted on this emissions unit. The emission testing shall be performed in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations.
- b. The following test methods shall be employed for both heat treat and the endothermic gas generators to demonstrate compliance:
  - i. Method 1 of 40 CFR, Part 60, Appendix A (for sample and velocity traverses);
  - ii. Method 2 of 40 CFR, Part 60, Appendix A (for velocity and volumetric flow rates);
  - iii. Method 3 of 40 CFR, Part 60, Appendix A (for molecular weight of dry gas stream);
  - iv. Method 4 of 40 CFR, Part 60, Appendix A (for moisture content of gas stream);
  - v. Method 7, as appropriate, of 40 CFR Part 60, Appendix A (for NO<sub>x</sub> emissions); and
  - vi. Method 10, as appropriate, of 40 CFR Part 60, Appendix A (for CO emissions).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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

(3) Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southwest District Office. 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, Southwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA 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.

- (4) 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 Ohio EPA, Southwest District Office 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 Ohio EPA, Southwest District Office.

g) Miscellaneous Requirements

- (1) None.



**12. P036, 2000 Ton Cutting & Forging Press**

**Operations, Property and/or Equipment Description:**

2000 Ton Forging Press: includes billet cutting, induction heat furnace, and forging press

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(C) and PTI 05-14392 (state-only)	The particulate emissions (PE) including 1.47 tons based upon a rolling, 12-month summation of the all materials employed in this emissions unit.  The organic compound (OC) including 4.4 tons based upon a rolling, 12-month summation of the all materials employed in this emissions unit.  b)(2)a., below.
b.	OAC rule 3745-21-07(G)(2)	The OC emissions from the use photochemically reactive liquid organic materials or substance containing photochemically reactive material shall not exceed 8 pounds per hour nor 40 pounds per day.  c)(2).c, d)(1)., e)(1), and f(3), below.
c.	OAC rule 3745-17-07(A)(1)	Visible PE emissions from this emissions unit shall not exceed 20% opacity, as a 6-minute average.
d.	OAC rule 3745-17-11(B)(1)	The PE emissions shall not exceed 10.7 lbs per hour.
e.	OAC rule 3745-31-05(A)(3)(b)	b)(2)b., below

(2) Additional Terms and Conditions

a. The emissions limits under OAC rule 3745-31-05(C) are at potential to emit.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate or VOC emissions from this air



contaminant emissions unit since the calculated maximum potential annual particulate emission rate is less than ten tons per year taking into account the data submitted by Honda of American.

- c. On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (G); therefore, paragraph (G) is no longer part of the State regulations. However, that rule revision has not been approved by the U.S.EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs to OAC rule 3745-21-07, the requirement of the previous OAC rule 3745-21-07(G) still exists as part of the federally-approved SIP for Ohio.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the terms and conditions within this permit which are required by previous OAC rule 3745-21-07(G) will not be required and will not be federally and/or state enforceable.

Once the February 18, 2008, revised OAC rule 3745-21-07, or modified version of OAC rule 3745-21-07 is approved by the U.S. EPA and Ohio's State Implementation Plan (SIP) is revised, the permittee shall take immediate steps to assure compliance with any and all requirements of the revised OAC rule and/or SIP.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) This facility shall maintain the following daily records if any material employed is by definition photo chemically reactive material "PRM" or contains a substance that is by definition "PRM", are used in this emissions unit:
  - a. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the amount of each "PRM" material or "PRM" containing material employed, in gallons;
  - b. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the organic compound content of each "PRM" material or "PRM" containing material employed, in lbs/gal;
  - c. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the organic compound (OC) emissions of each "PRM" material or "PRM" containing material employed, in lbs of OC/day ("a" x "b");
  - d. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the total number of hours this emission unit was operated, in hours/day; and
  - e. if any material employed is by definition "PRM" or contains a substance that is by definition "PRM", the estimated hourly OC emission rate, in lbs of OC/hr ("c"/"d").



e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports for that identify each exceedance of the following:
  - a. the average hourly OC emissions exceed 8 pounds from the use of defined "PRM" or contains a substance that is by definition "PRM" materials; and/or
  - b. the daily OC emissions exceed 40 pounds from the use of defined "PRM" or contains a substance that is by definition "PRM" materials.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

1.47 tons PE/yr

Applicable Compliance Method:

The combined hourly and rolling 12-month emission limitation was established by the following methodology:

$$AER = (((((Et \times Mf) \times 60 \text{ min/hr}) / 7000 \text{ grains/lb}) \times (1 - 70\%)) \times Ho) / 2000 \text{ lbs/ton}$$

Where:

AER= Annual Emission Rate;

Er = Emission Rate, (assumed worst case based on 0.01 grains per dscf);

Mf = Maximum Air Flow, in scfm, (13,000); and

Ho= Total 12-month rolling period hours of operation, (8760 hrs/yr).

- (2) Compliance with the emission limitation(s) and operational restriction specified in b)(1) and c) of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation:

4.4 tons OC/yr



Applicable Compliance Method:

The combined hourly and rolling 12-month emission limitation was established by the following methodology:

$$AER = ((Mlu * Ld * Oc) * 365 \text{ days/yr}) / 2000$$

Where:

AER= Annual Emission Rate;

Mlu= Maximum potential daily lubricant usage rate, (25 gallons/day, Honda Transmission's Emissions Unit Category form);

Ld= Lubricant density, (9.66 lbs/gal, Honda Transmission's provided Data sheets); and

Oc= Worst case organic compound content, (Organic content 10% by wgt. Honda Transmission's Data sheets).

- (3) Compliance with the emission limitations specified by the SIP and the previous OAC rule 3745-21-07(G)(2) in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

The OC emissions from the use photochemically reactive liquid organic materials or substance containing photochemically reactive material shall not exceed 8 pounds per hour nor 40 pounds per day.

Applicable Compliance Method:

Compliance with the above OC emission limitations shall be determined by the recordkeeping requirement specified in d) of this permit.

- g) Miscellaneous Requirements

- (1) None.