

**Synthetic Minor Determination and/or**  **Netting Determination**

Permit To Install **05-14357**

**A. Source Description:**

Honda Manufacturer of American has an engine production plant at 12500 Meranda Road, Anna, Ohio. This permit addresses modifications to the engine testing dynamometers and increase in hourly NOx emissions as based on their August 2005 stack test. Honda plans to exchange the two existing 2.5 MM BTU/hr natural gas-fired thermal incinerators on this emissions unit with two 5.0 MM BTU/hr natural gas-fired thermal incinerators. This facility is defined as a Minor Source under PSD regulations.

**B. Facility Emissions and Attainment Status:**

Honda Anna Engine Plant (AEP) is a minor stationary source under PSD for all pollutants. Honda is located in Shelby County which is attainment for all criteria pollutants.

**C. Source Emissions:**

Honda submitted this permit application to modify the terms for engine test dynamometer operation, emissions unit P006. Emissions unit P006 is controlled by two Thermal Oxidizers that operate in parallel. A single TO has the capacity to control emissions from 5 of the 9 test cells. The system automatically routes the first 5 cells in operation to a single TO. When the 6th cell sends signal to activate, the source is electronically prohibited (by interlock) from operation until the second TO activates and reaches the minimum permitted temperature. Both TO's maintain interlocks that automatically shut down all active emission sources if the TO temperature drops below the permitted set point.

The applicant proposed that the permit be based upon tracking the rolling, 12-month operation restriction to demonstrate compliance with this limitation, and with the rolling 12-month emissions limitations. For this reason, we have designed the permit to clearly state that an exceedance of the operational restriction is also an exceedance of the emission limitations for all pollutants except for NOx.

We are requiring testing for NOx and CO. The intention of the test is to confirm the emissions. Each thermal oxidizer will need to be tested to establish an appropriate temperature.

**D. Conclusion:**

Honda's Anna Engine Production Plant is defined as a minor source for Federal Regulation under PSD. Honda is working with the Ohio EPA to develop Federally Enforceable limitations on their existing operations to assure that CO emissions do not trigger PSD requirements.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
SHELBY COUNTY**

**CERTIFIED MAIL**

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:  
Lazarus Gov.  
Center

**Application No: 05-14357**

**Fac ID: 0575000174**

**DATE: 7/20/2006**

Honda of America Mfg Inc  
Paul Huwer  
12500 MERANDA RD  
ANNA, OH 45302-9699

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$200** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

*Michael W. Ahern*

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

CC: USEPA

SWDO

IN



STATE OF OHIO ENVIRONMENTAL PROTECTION  
AGENCY

**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 05-14357**

Application Number: 05-14357  
Facility ID: 0575000174  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Honda of America Mfg Inc  
Person to Contact: Paul Huwer  
Address: 12500 MERANDA RD  
ANNA, OH 453029699

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**12500 Meranda Rd  
Anna, Ohio**

Description of proposed emissions unit(s):  
**Modification of emission unit to increase fuel usage to 120 liters/hr/test cell.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Honda of America Mfg Inc

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Part I - GENERAL TERMS AND CONDITIONS

**A. State and Federally Enforceable Permit-To-Install General Terms and Conditions**

**1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

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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. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

**2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

**3. Risk Management Plans**

If the permittee is required to 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"), the permittee shall comply with the requirement to register such a plan.

**4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain,

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the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

**5. Severability Clause**

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

**6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification
- 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, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying 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.

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**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of

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the Ohio EPA. Progress reports shall contain the following:

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

## 10. Permit-To-Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

## 11. Best Available Technology

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

## 12. 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.

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**13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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**B. State Only Enforceable Permit-To-Install General Terms and Conditions**

**1. Compliance Requirements**

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

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

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

**3. 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.

**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of

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

**5. Construction of New Sources(s)**

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

**6. Public Disclosure**

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

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**8. Construction Compliance Certification**

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

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

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

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**C. Permit-To-Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	1.97
SO2	1.19
NOx	12.57
VOC	1.01
CO	9.27

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P006 - PED Engine Testing dynamometers with nine (9) test stands and two thermal oxidizers (Terms in this permit supercede those identified in PTI 05-12919 issued on 2/24/05.)	OAC rule 3745-31-05(A)(3)  OAC rule 3745-31-05(C) Synthetic Minor to avoid PSD          OAC rule 3745-17-07(A)  OAC rule 3745-17-11  OAC rule 3745-21-08(B)  OAC rule 3745-18-06(G)

Emissions Unit ID: P006

OAC rule 3745-21-07(B)	Applicable Emissions <u>Limitations/Control Measures</u>	12-month summation.
OAC rule 3745-23-06(B)	Particulate emissions (PE) shall not exceed —1.21 pounds per hour.	NOx emissions shall not exceed 12.57 tons per rolling, 12-month summation.
	Sulfur dioxide (SO2) emissions shall not exceed 0.86 pound per hour.	VOC emissions shall not exceed 1.01 ton per rolling, 12-month summation.
	Nitrogen oxides (NOx) emissions shall not exceed 9.27 pounds per hour.	CO emissions shall not exceed 9.27 tons per rolling, 12-month summation.
	Volatile organic compounds (VOC) emissions shall not exceed 0.63 pound per hour.	See Section A.I.2.a below.
	Carbon monoxide (CO) emissions shall not exceed 7.05 pounds per hour.	See Section A.I.2.b below.
	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).	See Section A.I.2.c below.
	The emissions from the natural gas employed in the Thermal Incinerators shall not exceed :  100 lbs of NOx /mmscf; 0.6 lbs of SO2/ mmscf; 7.6 lbs of PE/mmscf; 5.5 lbs of VOC/mmscf; and 84 lbs of CO/mmscf.	See Section A.I.2.d below.
	PE shall not exceed 1.97 tons per rolling, 12-month summation.	See Section A.I.2.c below.
	SO2 emissions shall not exceed 1.19 tons SO2 per rolling,	

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**2. Additional Terms and Conditions**

**2.a** 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.

**2.b** 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.

**2.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) and OAC rule 3745-21-07(B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**2.d** This emissions unit is exempt from the requirements of OAC rule 3745-18-06(G) pursuant to OAC rule 3745-18-06(B).

**2.e** The pound per hour limitations are established to 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 limits.

**2.f.** This emissions unit shall be equipped with two thermal oxidizers (TO) system with a design destruction efficiency for reducing VOC and CO emission by at least 99%. The system shall automatically route the first 5 cells in operation to a

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single TO. The TO system shall be equipped with a lockout which will assure that the second TO activates and reaches the minimum permitted temperature, before a 6th cell can be operated.

**II. Operational Restrictions**

1. The average combustion temperature within the thermal incinerators, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
2. The maximum annual operating hours for this emissions unit shall not exceed 24,400 hours. In addition, only 400 of the 24,400 hours shall be used to test engines of a size greater than 3.9 liters and not exceeding 5.3 liters. The operating hour restrictions are based upon a rolling, 12-month summation of the operating hours for all testing dynamometers combined.

The permittee has sufficient existing records to demonstrate compliance with these limits during the first 12-months following the issuance of this permit. Therefore it is not necessary to establish operating hour restriction for the first 12-months of operation.

3. The permittee shall employ only unleaded fuel when operating this emissions unit.
4. The permittee shall employ only natural gas in their thermal incinerators.
5. The maximum amount of fuel usage in any test cell shall not exceed 120 liters/hr (31.7 gallons/hr), nor 2,928,000 liters/12 month rolling period (773,577.6 gallons/12 month rolling period).

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measure and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. This requirement is limited to the incinerator that is operating or both when both incinerators are operating. 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.

Emissions Unit ID: P006

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.
2. The permittee shall maintain monthly records for this emissions unit of the following information:
- a. the operating hours for all test stands combined;
  - b. the rolling, 12-month summation of the operating hours for all test stands combined;
  - c. the operating hours for testing engines of a size greater than 3.9 liters and not exceeding 5.3 liters for all test stands combined;
  - d. the rolling, 12-month summation of the operating hours for testing engines of a size greater than 3.9 liters and not exceeding 5.3 liters for all test stands combined; and
  - e. the rolling, 12-month unleaded gasoline employed in the testing cells.

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports for this emissions unit that identify the following:
  - a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator 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. all exceedances of the rolling, 12-month operating hours limitation of 24,400 hours;
  - c. all exceedances of the rolling, 12-month operating hours limitation of 400 hours for testing engines of a size greater than 3.9 liters and not exceeding 5.3 liters;

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- d. all exceedance of the 12-month unleaded gasoline usage limitation; and
- e. all exceedances of the rolling, 12-month emission limitations of 1.97 ton PE, 1.19 ton of SO<sub>2</sub>, 1.01 tons of VOC, 9.27 tons of CO, and 12.57 tons of NO<sub>x</sub> (any exceedance of the hours of operation restrictions shall be an exceedance of the emission limitations.)

These reports shall be due by the dates specified in 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.

**V. Testing Requirements**

Compliance with the emission limitations in Section A..I.1. of these terms and conditions shall be determined in accordance with the following methods:

- 1. Emissions Limitations:  
1.21 lbs of PE/hr and 1.97 tons PE per rolling, 12-month summation  
0.86 lb of SO<sub>2</sub>/hr and 1.19 tons SO<sub>2</sub> per rolling, 12-month summation

Applicable Compliance Method:

The hourly and annual PE and SO<sub>2</sub> emission limitations were established respectively as follows:

$$Er = [(U) \times (0.2642 \text{ gal/liter}) \times (EF) \times (9 \text{ dyno stands})] + [(2) \times (5 \text{ mm Btu/hr}) \times (1 \text{ scf/1020 Btu}) \times (EE)]$$

$$Ar = [(U) \times (0.2642 \text{ gal/liter}) \times (EF) \times (24,400 \text{ hrs} + 400 \text{ hrs}) + (2) \times (5 \text{ mm Btu/hr}) \times (1 \text{ scf/1020 Btu}) \times (EE) \times (8,760 \text{ hrs/yr})] / (2000 \text{ lbs/ton})$$

where,

Er = the maximum hourly emission rate

Ar = the annual emission rate based upon limited operating hours

U = the maximum gas usage rate of 120 liters/hour

EF = the emissions factor of 0.004 lb PE/gallon or 0.003 lb SO<sub>2</sub>/gal, as applicable (Based on June 2001 emission test at HRA-O)

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EE = the emission factor for natural gas combustion, 7.6 lbs PE/million scf or 0.6 lb SO<sub>2</sub>/million scf, as applicable (from AP-42, Table 1.4-2, revised 7/98)

If required, compliance with the hourly PE and SO<sub>2</sub> emission limitations shall be demonstrated based on the results of emission testing conducted in accordance with Methods 5 and/or 6, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the rolling, 12-month emission limitations is demonstrated based upon the record keeping in Part III - Section A.III.2 of this permit. Any exceedance of the rolling, 12-month operating hour restrictions is also an exceedance of the annual PE and SO<sub>2</sub> emission limitations.

## 2. Emissions Limitations:

0.63 lb VOC/hr and 1.01 tons VOC per rolling, 12-month summation

Applicable Compliance Method:

The hourly and annual VOC emission limitations were established respectively as follows:

$$E_r = [(U) \times (0.2642 \text{ gal/liter}) \times (EF) \times (9 \text{ dyno stands}) \times (1 - DRE)] + [(2) \times (5 \text{ mm Btu/hr}) \times (1 \text{ scf} / 1020 \text{ Btu}) \times (EE)]$$

$$A_r = \{[(U) \times (0.2642 \text{ gal/liter}) \times (EF) \times (24,400 \text{ hrs}) \times (1 - DRE)] + [(2) \times (5 \text{ mm Btu/hr}) \times (1 \text{ scf} / 1020 \text{ Btu}) \times (EE) \times (8,760 \text{ hrs/yr})] / (2000 \text{ lbs/ton})$$

where,

$E_r$  = the maximum hourly emission rate

$A_r$  = the annual emission rate based upon limited operating hours

$U$  = the maximum gas usage rate of 120 liters/hour

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

$DRE$  = the destruction removal efficiency of the thermal oxidizer, 99% or 0.99

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

If required, compliance with the hourly VOC limitation shall be demonstrated 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.

Compliance with the rolling, 12-month emission limitation is demonstrated based upon the record keeping in Part III - Section A.III.2 of this permit. Any exceedance of the rolling, 12-month operating hour restrictions is also an exceedance of the annual VOC emission limitation.

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3. Emissions Limitations:  
9.27 lbs NO<sub>x</sub>/hr and 12.57 tons NO<sub>x</sub> per rolling, 12-month summation

Applicable Compliance Method:

The hourly NO<sub>x</sub> emission limitation was established as follows:

$$(1.03 \text{ lb NO}_x/\text{engine hr}) \times (9 \text{ Test Cells/hr}) = \text{ lbs NO}_x/\text{hr}$$

$$(1.03 \text{ lb NO}_x/\text{engine hr}) \times (24,400 \text{ hours/year}) \times (1 \text{ ton}/2000 \text{ lbs}) = \text{ tons NO}_x/\text{yr}$$

where, the emissions factor of 1.03 lb/hr per engine hour (Based on Honda Anna 11/01 emission test results for this emissions unit)

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

4. Emissions Limitation:  
7.05 lbs CO/hr

Applicable Compliance Method:

The hourly CO emission limitation was established as follows:

First, determine the standard flow rate for each type of engine tested:

$$3.9 \text{ liter engines flow rate} = (0.5)(6300 \text{ rpm})(3.9 \text{ liters})(0.0353 \text{ cf/liter})(528 \text{ deg R}/1460 \text{ deg R})$$

$$= 156.8 \text{ scfm}$$

$$5.3 \text{ liter engines flow rate} = (0.5)(6300 \text{ rpm})(5.3 \text{ liters})(0.0353 \text{ cf/liter})(528 \text{ deg R}/1460 \text{ deg R})$$

$$= 213.13 \text{ scfm}$$

Second, determine the mass rate of emissions with a maximum CO concentration of 11%:

$$\begin{aligned} \text{CO emission rate} &= (0.11)(28.01 \text{ lbs/lb-mol}) / 385.4 \text{ scf/lb-mol} \\ &= 0.008 \text{ lb CO/scf} \end{aligned}$$

Finally, determine hourly emissions rate with eight (8) dynamometers testing 3.9 liter engines, and one (1) dynamometer testing 5.3 liter engines:

$$C_e = [(8)(156.83 \text{ scf/min}) + (1)(213.13 \text{ scf/min})](0.008 \text{ lb CO/scf})(60 \text{ min/hr})(1 - \text{DRE})$$

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$$+ [(2)(5\text{mm Btu/hr})(1\text{scf}/1020\text{Btu})(\text{EF})]$$

where,

Ce = the maximum hourly CO emission rate

DRE = the destruction removal efficiency of the thermal oxidizers, 99%

EF = the emission factor for natural gas combustion, 84.0 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.

5. Emission Limitation:  
9.27 tons CO per rolling, 12-month summation

Applicable Compliance Method:

The annual CO emission limitation was established as follows:

$$C_a = [(24,400 \text{ hrs/yr})(156.83 \text{ scf/min}) + (400 \text{ hrs/yr})(213.13 \text{ scf/min})](0.008 \text{ lb CO/scf})(60 \text{ min/hr})(1 - \text{DRE})(1 \text{ ton}/2000 \text{ lbs}) + [(2)(5\text{mm Btu/hr})(1 \text{ scf}/1020 \text{ Btu})(\text{EF})(8760 \text{ hrs/yr})(1 \text{ ton}/2000 \text{ lbs})]$$

where,

C<sub>a</sub> = the annual CO emission rate

DRE = the destruction removal efficiency of the thermal oxidizers, 99%

EF = the emission factor for natural gas combustion, 84.0 lbs CO/million scf (from AP-42, Table 1.4-1, revised 7/98)

Compliance with the rolling, 12-month emission limitation is demonstrated based upon the record keeping in Part III - Section A.III.2 of this permit. Any exceedance of the rolling, 12-month operating hour restrictions is also an exceedance of the annual CO emission limitation.

6. 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 following the issuance of this permit.
  - b. The emission testing shall be conducted to demonstrate compliance for allowable emissions limitations for VOC, CO and NO<sub>x</sub>. The testing shall be conducted separately for each thermal oxidizer.

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- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) and control efficiency:

VOC: Method 25A of 40 CFR Part 60, Appendix A  
CO: Methods 1-4 and 10 of 40 CFR Part 60, Appendix A  
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 test(s) 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.

Not later than 30 days prior to the proposed test date(s), 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.

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.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P006 - PED Engine Testing dynamometers with nine (9) test stands and two thermal oxidizers (Terms in this permit supercede those identified in PTI 05-12919 issued on 2/24/05.)	OAC rule 3745-31-05	LIMIT(s) None

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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None

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