

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

Permit To Install: "05-14384"

**A. Source Description:**

Transportation Research Center (TRC) has submitted applications for PTIs for five dynamometer test cell acquired from the former ATL company. These cells, constructed between 2001 and 2003, were never issued a permit during ATL's ownership. The third cell (company ID: Cell 3) was a chassis dynamometer cell, designed for testing of whole automobiles, with emission control systems in place, and is therefore exempt from permit requirements in Ohio. The other two cells (Cell 1, emission unit P002, and Cell 2, emission unit P003) are the subject of PTI requirements. In this PTI, all five test dynamometers will be separated into separate emissions units P002-P006 and limit the overall stack able emissions to below Title V threshold amounts.

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

Although this facility has over 500 tons of fugitive particulate emissions from their test tracks, the emissions units in this permit constitute the only stack able emissions units at the facility. So the applicable emissions for Title V threshold, non-fugitive, will be equal to the allowable emissions of this PTI: 65.85 tons of CO; 24.00 tons of NOx; 3.08 tons of VOC; 0.70 tons of PE/PM10; and 0.41 tons of SO2.

**C. Source Emissions:**

**1. P002:Engine Testing Dynamometer Cells, (Magtrol 3hp):** This new P002 will be made-up the 3hp dynamometers that can be operated independently. The allowable hourly emission is based on the worst case emissions from the use of the worst case fuel for each individual regulated pollutant. Since the worst case CO hourly emissions from this emissions unit is 1.32 lbs/hr, the worst case daily emissions will be above the 10 lb/day "de minimis" level and this emissions unit will need to be permitted. The annual emissions will be minimized by the use of a combined limitation on the total operating hours in all five emissions units in this PTI (P002-P006). (for more data on emissions see **Potential to Emit** Section under **NSR discussion** area).

**2. P003:GD200HD1000 (1000 HP diesel power dyno):** P003 stay as the 1,000 hp diesel power dynamometers that can be operated independently. The allowable hourly emission is based on the worst case emissions from the use of the worst case fuel for each individual regulated pollutant. The worst case hourly emissions from this emissions unit will be: 5.5 lbs of CO; 24 lbs of NOx; 0.71 lbs of VOC; 0.7 lbs of PE/PM10; and 0.41 lbs of SO2. The annual emissions will be minimized by the use of a combined limitation on the total operating hours in all five emissions units in this PTI (P002-P006). (for more data on emissions see **Potential to Emit** Section under **NSR discussion** area).

**3. P004: Magtrol 10 HP (10 hp power gas/diesel dyno):** This new P004 will be made-up the 10hp dynamometers that can be operated independently. The allowable hourly emission is based on the worst case emissions from the use of the worst case fuel for each individual regulated pollutant. The worst case hourly emissions from this emissions unit will be 4.39 lbs of CO. The annual emissions will be minimized by the use of a combined limitation on the total operating hours in all five emissions units in this PTI (P002-P006). (for more data on emissions see **Potential to Emit** Section under **NSR discussion** area).

**4. P005: GE Dyno 76 HP ( 76 hp gas/diesel dyno):** This new P005 will be made-up the 76hp

dynamometers that can be operated independently. The allowable hourly emission is based on the worst case emissions from the use of the worst case fuel for each individual regulated pollutant. The worst case hourly emissions from this emissions unit will be: 33.36 lbs of CO; 2.36 lbs of NOx; and 1.56 lbs of VOC. The annual emissions will be minimized by the use of a combined limitation on the total operating hours in all five emissions units in this PTI (P002-P006). (for more data on emissions see **Potential to Emit** Section under **NSR discussion** area).

**5. P006: GE Dyno 150 hp ( 150 hp gas/diesel dyno):** This new P006 will be made-up the 150hp dynamometers that can be operated independently. The allowable hourly emission is based on the worst case emissions from the use of the worst case fuel for each individual regulated pollutant. The worst case hourly emissions from this emissions unit will be: 65.85 lbs of CO; 4.65lbs of NOx; and 3.08 lbs of VOC. The annual emissions will be minimized by the use of a combined limitation on the total operating hours in all five emissions units in this PTI (P002-P006). (for more data on emissions see **Potential to Emit** Section under **NSR discussion** area).

**D. Conclusion:**

This permit is recommended to be issued draft for public comment.



State of Ohio Environmental Protection Agency

Street Address:

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

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

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

**RE: DRAFT PERMIT TO INSTALL**

**LOGAN COUNTY**

**Application No: 05-14384**

**Fac ID: 0546000058**

**DATE: 8/3/2006**

Transportation Research Center Inc  
Rick Powers  
10820 State Rte 347  
East Liberty, OH 43319-0367

**CERTIFIED MAIL**

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

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 **\$1000** 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, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control



**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 05-14384**

Application Number: 05-14384

Facility ID: 0546000058

Permit Fee: **To be entered upon final issuance**

Name of Facility: Transportation Research Center Inc

Person to Contact: Rick Powers

Address: 10820 State Rte 347  
East Liberty, OH 43319-0367

Location of proposed air contaminant source(s) [emissions unit(s)]:

**10820 State Rte 347  
East Liberty, Ohio**

Description of proposed emissions unit(s):

**To account for operating flexibility of cell(dynamometers) interchangeability and outside operation, TRC is requesting hourly emissions limits by dynamometer basis.**

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

## 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 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, 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.

## 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.

## 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 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.

#### **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.

**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 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.

**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.

**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>
CO	65.85
NOX	24.00
VOC	3.08
PE/PM10	0.70
SO2	0.41

**Transportation Research Center Inc**

**Facility ID: 0546000058**

**PTI Application Number: 05-14384**

**Issued: To be entered upon final issuance**

**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

**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.

**Operations, Property, and/or Equipment - (P002) - Engine Testing Dynamometer Cells, (Magtrol 3hp)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05 (A)(3)	<p>Emissions from this emissions unit shall be limited to the following hourly restrictions:</p> <p>1.32 lbs of carbon monoxide (CO).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-5(C).</p>
OAC rule 3745-31-05(C)	<p>The combined emissions from emissions units P002-P006 shall not exceed to the following annual restrictions:</p> <p>65.85 tons of carbon monoxide (CO);  24.00 tons of nitrogen oxides (NOx);  3.08 tons of volatile organic compounds (VOC);  0.70 tons of particulate emissions (PE); and  0.41 tons of sulfur dioxide (SO2).</p> <p>The annual limits shall be based upon a 12- month rolling summation of emissions.</p> <p>see "Operational Restrictions" in Section II.2.</p>
OAC rule 3745-17-07(A)	see additional term & condition in Section I.A.2a
OAC rule 3745-17-11	see additional term & condition in Section I.A.2b
OAC rule 3745-21-08(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-18-06(G)	see additional term & condition in Section I.A.2d
OAC rule 3745-21-07(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-23-06(B)	see additional term & condition in Section I.A.2c

**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).

**II. Operational Restrictions:**

1. The permittee shall employ only unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H2) as fuel when operating this emissions unit.
2. The combined annual hours of operation emissions units P002 to P006 shall not exceed 2,000 hours, based upon a rolling, 12-month summation of the hours of operation for all dynamometers in this emission unit.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative hours of operation</u>
1	166
1-2	333
1-3	500
1-4	666
1-5	833
1-6	1,000
1-7	1,166
1-8	1,333
1-9	1,500
1-10	1,666
1-11	1,836
1-12	2,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual hours of operation limitation shall be based upon a rolling, 12-month summation of the monthly combined hours of operation figures of all emissions units in this PTI.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain the following monthly records:
  - a. the number of hours that this emissions unit was operated;
  - b. the combined number of hours that emissions units, P002-P006, were operated;
  - c. the rolling, 12-month summation of the combined operating hours;
  - d. The name, and identification number (if any) of each unleaded gasoline burned in this emissions unit;
  - e. The name, and identification number (if any) of each auto diesel fuel burned in this emissions unit; and
  - f. The name, and identification number (if any) of each fuel other than unleaded gasoline or auto diesel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the combined rolling, 12-month operational hours limitation of 2,000. During the first 12 months of operation after final issuance of this permit the permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the operational hours limitations listed in Part II.2 of this emission unit.

2. If the permittee uses any other type of fuel other than unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H<sub>2</sub>) in this emissions unit, the permittee shall notify the Ohio EPA, Southwest District Office within 30 days of becoming aware of the occurrence.
3. The deviation reports shall be submitted in accordance with paragraph A.I.e.ii of the General Terms and Conditions of this permit.

## V. Testing Requirements

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

- a. Emission Limitation:

1.32 lbs of carbon monoxide (CO)/hr

Applicable Compliance Method:

Compliance with the above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1.

- b. Combined Emission Limitation:

65.85 tons of CO/ rolling 12-month period;  
24.00 tons of NO<sub>x</sub>/ rolling 12-month period;  
3.08 tons of VOC/ rolling 12-month period;  
0.70 tons of PE(PM<sub>10</sub>)/ rolling 12-month period; and  
0.41 tons of SO<sub>2</sub>/ rolling 12-month period.

The above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1 and Table 3.4-1. Emission Factors from Table 3.3-1 shall be used to calculate the air pollution emissions from emissions units P002, P004, P005, and P006, while Emission Factors from Table 3.4-1 will be used to calculate the emissions from emissions unit P003. If required, compliance with the above limits shall be based on mass emissions testing. If requested, testing shall be performed as specified in Methods 1 through 4, Method 10 for CO, Method 7 for NO<sub>x</sub>, Method 25 or 25A for VOC, Method 201 and 202 for PM-10, and Method 6 for SO<sub>2</sub>, in 40 CFR Part 60, Appendix A. Alternate method may be used with approval of Ohio EPA in writing.

The allowable hourly rate represents the worst emission rate from usage of the worst case fuel for each individual pollutant. The allowable annual rate is based on the worst case individual emissions unit emission rate for each individual pollutant multiplied by the entire allowable 2,000 hours per 12-month rolling period.

**Transportation Research Center Inc**  
**PTI Application Number: 05-14384**  
**Issued: To be entered upon final issuance**

**Facility ID: 0546000058**  
Emissions Unit ID: P002

**VI. Miscellaneous Requirements**

None

**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.

**Operations, Property, and/or Equipment - (P002) - Engine Testing Dynamometer Cells, (Magtrol 3hp)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	Limit(s)

**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**

None

**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.

**Operations, Property, and/or Equipment - (P003) - GD200HD1000 (1000 HP diesel power dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05 (A)(3)	<p>Emissions from this emissions unit shall be limited to the following hourly restrictions:</p> <p>5.5 lbs of carbon monoxide (CO);            24.0 lbs of nitrogen oxides (NOx);            0.71 lbs of volatile organic compounds (VOC);            0.7 lb of particulate emissions (PE/PM10); and            0.41 lb of sulfur dioxide (SO2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-5(C).</p>
OAC rule 3745-31-05(C)	<p>The combined emissions from emissions units P002-P006 shall not exceed to the following annual restrictions:</p> <p>65.85 tons of carbon monoxide (CO);            24.00 tons of nitrogen oxides (NOx);            3.08 tons of volatile organic compounds (VOC);            0.70 tons of particulate emissions (PE); and            0.41 tons of sulfur dioxide (SO2).</p> <p>The annual limits shall be based upon a 12- month rolling summation of emissions.</p> <p>see "Operational Restrictions" in Section II.2.</p>
OAC rule 3745-17-07(A)	see additional term & condition in Section I.A.2a
OAC rule 3745-17-11	see additional term & condition in Section I.A.2b
OAC rule 3745-21-08(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-18-06(G)	see additional term & condition in Section I.A.2d
OAC rule 3745-21-07(B)	see additional term & condition in Section I.A.2c

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-23-06(B)	see additional term & condition in Section I.A.2c

## 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).

## II. Operational Restrictions

1. The permittee shall employ only auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H<sub>2</sub>) as fuel when operating this emissions unit.
2. The combined annual hours of operation emissions units P002 to P006 shall not exceed 2,000 hours, based upon a rolling, 12-month summation of the hours of operation for all dynamometers in this emission unit.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative hours of operation</u>
1	166
1-2	333
1-3	500
1-4	666
1-5	833
1-6	1,000
1-7	1,166
1-8	1,333
1-9	1,500
1-10	1,666
1-11	1,836
1-12	2,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual hours of operation limitation shall be based upon a rolling, 12-month summation of the monthly combined hours of operation figures of all emissions units in this PTI.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain the following monthly records:
  - a. the number of hours that this emissions unit was operated;
  - b. the combined number of hours that emissions units, P002-P006, were operated;
  - c. the rolling, 12-month summation of the combined operating hours;
  - d. The name, and identification number (if any) of each unleaded gasoline burned in this emissions unit;
  - e. The name, and identification number (if any) of each auto diesel fuel burned in this emissions unit; and
  - f. The name, and identification number (if any) of each fuel other than unleaded gasoline or auto diesel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the combined rolling, 12-month operational hours limitation of 2,000. During the first 12 months of operation after final issuance of this permit the permittee shall

submit quarterly deviation (excursion) reports which identify all exceedances of the operational hours limitations listed in Part II.2 of this emission unit.

2. If the permittee uses any other type of fuel other than auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H<sub>2</sub>) in this emissions unit, the permittee shall notify the Ohio EPA, Southwest District Office within 30 days of becoming aware of the occurrence.
3. The deviation reports shall be submitted in accordance with paragraph A.I.e.ii of the General Terms and Conditions of this permit.

**V. Testing Requirements:**

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

a. Emission Limitation:

5.5 lbs of CO/hr;  
24.0 lbs of NO<sub>x</sub>/hr  
0.71 lbs of VOC/hr  
0.70 lbs of PE(PM<sub>10</sub>)/hr  
0.40 lbs of SO<sub>2</sub>/hr

Applicable Compliance Method:

Compliance with the above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.4-1.

b. Combined Emission Limitation:

65.85 tons of CO/ rolling 12-month period;  
24.00 tons of NO<sub>x</sub>/ rolling 12-month period;  
3.08 tons of VOC/ rolling 12-month period;  
0.70 tons of PE(PM<sub>10</sub>)/ rolling 12-month period; and  
0.41 tons of SO<sub>2</sub>/ rolling 12-month period.

The above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1 and Table 3.4-1. Emission Factors from Table 3.3-1 shall be used to calculate the air pollution emissions from emissions units P002, P004, P005, and P006, while Emission Factors from Table 3.4-1 will be used to calculate the emissions from emissions unit P003. If required, compliance with the above limits shall be based on mass emissions testing. If requested, testing shall be performed as specified in Methods 1 through 4, Method 10 for CO, Method 7 for NO<sub>x</sub>, Method 25 or 25A for VOC, Method 201 and 202 for PM-10, and Method 6 for SO<sub>2</sub>, in 40 CFR Part 60, Appendix A. Alternate method may be used with approval of Ohio EPA in writing.

**Transportation Research Center Inc**

**PTI Application Number: 05-14384**

**Issued: To be entered upon final issuance**

**Facility ID: 0546000058**

Emissions Unit ID: P003

The allowable hourly rate represents the worst emission rate from usage of the worst case fuel for each individual pollutant. The allowable annual rate is based on the worst case individual emissions unit emission rate for each individual pollutant multiplied by the entire allowable 2,000 hours per 12-month rolling period.

**VI. Miscellaneous Requirements**

None

**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.

**Operations, Property, and/or Equipment - (P003) - GD200HD1000 (1000 HP diesel power dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	Limit(s)

**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**

None

**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.

**Operations, Property, and/or Equipment - (P004) - Magtropol 10 HP (10 hp power gas/diesel dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Emissions from this emissions unit shall be limited to the following hourly restrictions:</p> <p>4.39 lbs of carbon monoxide (CO);  0.31 lbs of nitrogen oxides (NOx); and  0.26 lbs of volatile organic compounds (VOC).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-5(C).</p>
OAC rule 3745-31-05(C)	<p>The combined emissions from emissions units P002-P006 shall not exceed to the following annual restrictions:</p> <p>65.85 tons of carbon monoxide (CO);  24.00 tons of nitrogen oxides (NOx);  3.08 tons of volatile organic compounds (VOC);  0.70 tons of particulate emissions (PE); and  0.41 tons of sulfur dioxide (SO<sub>2</sub>).</p> <p>The annual limits shall be based upon a 12- month rolling summation of emissions.</p> <p>see "Operational Restrictions" in Section II.2.</p>
OAC rule 3745-17-07(A)	see additional term & condition in Section I.A.2a
OAC rule 3745-17-11	see additional term & condition in Section I.A.2b
OAC rule 3745-21-08(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-18-06(G)	see additional term & condition in Section I.A.2d
OAC rule 3745-21-07(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-23-06(B)	see additional term & condition in Section I.A.2c

## 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).

## II. Operational Restrictions:

1. The permittee shall employ only unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H<sub>2</sub>) as fuel when operating this emissions unit.
2. The combined annual hours of operation emissions units P002 to P006 shall not exceed 2,000 hours, based upon a rolling, 12-month summation of the hours of operation for all dynamometers in this emission unit.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative hours of operation</u>
1	166
1-2	333
1-3	500
1-4	666
1-5	833
1-6	1,000
1-7	1,166
1-8	1,333
1-9	1,500
1-10	1,666
1-11	1,836
1-12	2,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual hours of operation limitation shall be based upon a rolling, 12-month summation of the monthly combined hours of operation figures of all emissions units in this PTI.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain the following monthly records:
  - a. the number of hours that this emissions unit was operated;
  - b. the combined number of hours that emissions units, P002-P006, were operated;
  - c. the rolling, 12-month summation of the combined operating hours;
  - d. The name, and identification number (if any) of each unleaded gasoline burned in this emissions unit;
  - e. The name, and identification number (if any) of each auto diesel fuel burned in this emissions unit; and
  - f. The name, and identification number (if any) of each fuel other than unleaded gasoline or auto diesel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the combined rolling, 12-month operational hours limitation of 2,000. During the first 12 months of operation after final issuance of this permit the permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the operational hours limitations listed in Part II.2 of this emission unit.

2. If the permittee uses any other type of fuel other than unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H<sub>2</sub>) in this emissions unit, the permittee shall notify the Ohio EPA, Southwest District Office within 30 days of becoming aware of the occurrence.
3. The deviation reports shall be submitted in accordance with paragraph A.I.e.ii of the General Terms and Conditions of this permit.

## V. Testing Requirements

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

- a. Emission Limitation:

4.39 lbs of carbon monoxide (CO);  
0.31 lbs of nitrogen oxides (NO<sub>x</sub>); and  
0.26 lbs of volatile organic compounds (VOC).

Applicable Compliance Method:

Compliance with the above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1.

- b. Combined Emission Limitation:

65.85 tons of CO/ rolling 12-month period;  
24.00 tons of NO<sub>x</sub>/ rolling 12-month period;  
3.08 tons of VOC/ rolling 12-month period;  
0.70 tons of PE(PM<sub>10</sub>)/ rolling 12-month period; and  
0.41 tons of SO<sub>2</sub>/ rolling 12-month period.

The above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1 and Table 3.4-1. Emission Factors from Table 3.3-1 shall be used to calculate the air pollution emissions from emissions units P002, P004, P005, and P006, while Emission Factors from Table 3.4-1 will be used to calculate the emissions from emissions unit P003. If required, compliance with the above limits shall be based on mass emissions testing. If requested, testing shall be performed as specified in Methods 1 through 4, Method 10 for CO, Method 7 for NO<sub>x</sub>, Method 25 or 25A for VOC, Method 201 and 202 for PM-10, and Method 6 for SO<sub>2</sub>, in 40 CFR Part 60, Appendix A. Alternate method may be used with approval of Ohio EPA in writing.

The allowable hourly rate represents the worst emission rate from usage of the worst case fuel for each individual pollutant. The allowable annual rate is based on

**Transportation Research Center Inc**

**PTI Application Number: 05-14384**

**Issued: To be entered upon final issuance**

**Facility ID: 0546000058**

Emissions Unit ID: P004

the worst case individual emissions unit emission rate for each individual pollutant multiplied by the entire allowable 2,000 hours per 12-month rolling period.

**VI. Miscellaneous Requirements**

None

**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.

**Operations, Property, and/or Equipment - (P004) - Magtrol 10 HP (10 hp power gas/diesel dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	Limit(s)

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**

None

**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.

**Operations, Property, and/or Equipment - (P005) - GE Dyno 76 HP ( 76 hp gas/diesel dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Emissions from this emissions unit shall be limited to the following hourly restrictions:</p> <p>33.36 lbs of carbon monoxide (CO);            2.36 lbs of nitrogen oxides (NOx); and            1.56 lbs of volatile organic compounds (VOC).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-5(C).</p>
OAC rule 3745-31-05(C)	<p>The combined emissions from emissions units P002-P006 shall not exceed to the following annual restrictions:</p> <p>65.85 tons of carbon monoxide (CO);            24.00 tons of nitrogen oxides (NOx);            3.08 tons of volatile organic compounds (VOC);            0.70 tons of particulate emissions (PE); and            0.41 tons of sulfur dioxide (SO2).</p> <p>The annual limits shall be based upon a 12- month rolling summation of emissions.</p> <p>see "Operational Restrictions" in Section II.2.</p>
OAC rule 3745-17-07(A)	see additional term & condition in Section I.A.2a
OAC rule 3745-17-11	see additional term & condition in Section I.A.2b
OAC rule 3745-21-08(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-18-06(G)	see additional term & condition in Section I.A.2d
OAC rule 3745-21-07(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-23-06(B)	see additional term & condition in Section I.A.2c

**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).

**II. Operational Restrictions:**

1. The permittee shall employ only unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H2) as fuel when operating this emissions unit.
2. The combined annual hours of operation emissions units P002 to P006 shall not exceed 2,000 hours, based upon a rolling, 12-month summation of the hours of operation for all dynamometers in this emission unit.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative hours of operation</u>
1	166
1-2	333
1-3	500
1-4	666
1-5	833
1-6	1,000
1-7	1,166
1-8	1,333
1-9	1,500
1-10	1,666
1-11	1,836
1-12	2,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual hours of operation limitation shall be based upon a rolling, 12-month summation of the monthly combined hours of operation figures of all emissions units in this PTI.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain the following monthly records:
  - a. the number of hours that this emissions unit was operated;
  - b. the combined number of hours that emissions units, P002-P006, were operated;
  - c. the rolling, 12-month summation of the combined operating hours;
  - d. The name, and identification number (if any) of each unleaded gasoline burned in this emissions unit;
  - e. The name, and identification number (if any) of each auto diesel fuel burned in this emissions unit; and
  - f. The name, and identification number (if any) of each fuel other than unleaded gasoline or auto diesel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the combined rolling, 12-month operational hours limitation of 2,000. During the first 12 months of operation after final issuance of this permit the permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the operational hours limitations listed in Part II.2 of this emission unit.

2. If the permittee uses any other type of fuel other than unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H2) in this emissions unit, the permittee shall notify the Ohio EPA, Southwest District Office within 30 days of becoming aware of the occurrence.
3. The deviation reports shall be submitted in accordance with paragraph A.I.e.ii of the General Terms and Conditions of this permit.

## V. Testing Requirements

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

- a. Emission Limitation:

33.36 lbs of carbon monoxide (CO);  
2.36 lbs of nitrogen oxides (NOx); and  
1.56 lbs of volatile organic compounds (VOC).

Applicable Compliance Method:

Compliance with the above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1.

- b. Combined Emission Limitation:

65.85 tons of CO/ rolling 12-month period;  
24.00 tons of NOx/ rolling 12-month period;  
3.08 tons of VOC/ rolling 12-month period;  
0.70 tons of PE(PM10)/ rolling 12-month period; and  
0.41 tons of SO2/ rolling 12-month period.

The above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1 and Table 3.4-1. Emission Factors from Table 3.3-1 shall be used to calculate the air pollution emissions from emissions units P002, P004, P005, and P006, while Emission Factors from Table 3.4-1 will be used to calculate the emissions from emissions unit P003. If required, compliance with the above limits shall be based on mass emissions testing. If requested, testing shall be performed as specified in Methods 1 through 4, Method 10 for CO, Method 7 for NOx, Method 25 or 25A for VOC, Method 201 and 202 for PM-10, and Method 6 for SO2, in 40 CFR Part 60, Appendix A. Alternate method may be used with approval of Ohio EPA in writing.

The allowable hourly rate represents the worst emission rate from usage of the worst case fuel for each individual pollutant. The allowable annual rate is based on the worst case individual emissions unit emission rate for each individual pollutant multiplied by the entire allowable 2,000 hours per 12-month rolling period.

**Transportation Research Center Inc**  
**PTI Application Number: 05-14384**  
**Issued: To be entered upon final issuance**

**Facility ID: 0546000058**  
Emissions Unit ID: P005

**VI. Miscellaneous Requirements**

None

**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.

**Operations, Property, and/or Equipment - (P005) - GE Dyno 76 HP ( 76 hp gas/diesel dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	Limit(s)

**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**

None

**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.

**Operations, Property, and/or Equipment - (P006) - GE Dyno 150 hp ( 150 hp gas/diesel dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Emissions from this emissions unit shall be limited to the following hourly restrictions:</p> <p>65.85 lbs of carbon monoxide (CO);            4.65 lbs of nitrogen oxides (NOx); and            3.08 lbs of volatile organic compounds (VOC).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-5(C).</p>
OAC rule 3745-31-05(C)	<p>The combined emissions from emissions units P002-P006 shall not exceed to the following annual restrictions:</p> <p>65.85 tons of carbon monoxide (CO);            24.00 tons of nitrogen oxides (NOx);            3.08 tons of volatile organic compounds (VOC);            0.70 tons of particulate emissions (PE); and            0.41 tons of sulfur dioxide (SO2).</p> <p>The annual limits shall be based upon a 12- month rolling summation of emissions.</p> <p>see "Operational Restrictions" in Section II.2.</p>
OAC rule 3745-17-07(A)	see additional term & condition in Section I.A.2a
OAC rule 3745-17-11	see additional term & condition in Section I.A.2b
OAC rule 3745-21-08(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-18-06(G)	see additional term & condition in Section I.A.2d
OAC rule 3745-21-07(B)	see additional term & condition in Section I.A.2c
OAC rule 3745-23-06(B)	see additional term & condition in Section I.A.2c

## 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).

## II. Operational Restrictions:

1. The permittee shall employ only unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H<sub>2</sub>) as fuel when operating this emissions unit.
2. The combined annual hours of operation emissions units P002 to P006 shall not exceed 2,000 hours, based upon a rolling, 12-month summation of the hours of operation for all dynamometers in this emission unit.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative hours of operation</u>
1	166
1-2	333
1-3	500
1-4	666
1-5	833
1-6	1,000
1-7	1,166
1-8	1,333
1-9	1,500
1-10	1,666
1-11	1,836
1-12	2,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual hours of operation limitation shall be based upon a rolling, 12-month summation of the monthly combined hours of operation figures of all emissions units in this PTI.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain the following monthly records:
  - a. the number of hours that this emissions unit was operated;
  - b. the combined number of hours that emissions units, P002-P006, were operated;
  - c. the rolling, 12-month summation of the combined operating hours;
  - d. The name, and identification number (if any) of each unleaded gasoline burned in this emissions unit;
  - e. The name, and identification number (if any) of each auto diesel fuel burned in this emissions unit; and
  - f. The name, and identification number (if any) of each fuel other than unleaded gasoline or auto diesel burned in this emissions unit.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the combined rolling, 12-month operational hours limitation of 2,000. During the first 12 months of operation after final issuance of this permit the permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the operational hours limitations listed in Part II.2 of this emission unit.

2. If the permittee uses any other type of fuel other than unleaded gasoline, auto diesel, compressed natural gas (CNG), liquefied propane gas (LPG), or gaseous hydrogen (H<sub>2</sub>) in this emissions unit, the permittee shall notify the Ohio EPA, Southwest District Office within 30 days of becoming aware of the occurrence.
3. The deviation reports shall be submitted in accordance with paragraph A.I.e.ii of the General Terms and Conditions of this permit.

## V. Testing Requirements

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

- a. Emission Limitation:

65.85 lbs of carbon monoxide (CO);  
4.65 lbs of nitrogen oxides (NO<sub>x</sub>); and  
3.08 lbs of volatile organic compounds (VOC).

Applicable Compliance Method:

Compliance with the above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1.

- b. Combined Emission Limitation:

65.85 tons of CO/ rolling 12-month period;  
24.00 tons of NO<sub>x</sub>/ rolling 12-month period;  
3.08 tons of VOC/ rolling 12-month period;  
0.70 tons of PE(PM<sub>10</sub>)/ rolling 12-month period; and  
0.41 tons of SO<sub>2</sub>/ rolling 12-month period.

The above limits are based on the emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", Chapter 3: Stationary Internal Combustion Sources , Table 3.3-1 and Table 3.4-1. Emission Factors from Table 3.3-1 shall be used to calculate the air pollution emissions from emissions units P002, P004, P005, and P006, while Emission Factors from Table 3.4-1 will be used to calculate the emissions from emissions unit P003. If required, compliance with the above limits shall be based on mass emissions testing. If requested, testing shall be performed as specified in Methods 1 through 4, Method 10 for CO, Method 7 for NO<sub>x</sub>, Method 25 or 25A for VOC, Method 201 and 202 for PM-10, and Method 6 for SO<sub>2</sub>, in 40 CFR Part 60, Appendix A. Alternate method may be used with approval of Ohio EPA in writing.

The allowable hourly rate represents the worst emission rate from usage of the worst case fuel for each individual pollutant. The allowable annual rate is based on the worst case individual emissions unit emission rate for each individual pollutant multiplied by the entire allowable 2,000 hours per 12-month rolling period.

**Transportation Research Center Inc**  
**PTI Application Number: 05-14384**  
**Issued: To be entered upon final issuance**

**Facility ID: 0546000058**  
Emissions Unit ID: P006

**VI. Miscellaneous Requirements**

None

**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.

**Operations, Property, and/or Equipment - (P006) - GE Dyno 150 hp ( 150 hp gas/diesel dyno)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	Limit(s)

**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**

None