



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

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

**RE: FINAL PERMIT TO INSTALL
UNION COUNTY
Application No: 01-08447**

CERTIFIED MAIL

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

DATE: 10/16/2001

Honda R&D Americas
Sue Borawski
21001 St Rt 739
Raymond, OH 43067

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

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

cc: USEPA

CDO



**Permit To Install
Terms and Conditions**

**Issue Date: 10/16/2001
Effective Date: 10/16/2001**

FINAL PERMIT TO INSTALL 01-08447

Application Number: 01-08447
APS Premise Number: 0180000156
Permit Fee: **\$1800**
Name of Facility: Honda R&D Americas
Person to Contact: Sue Borawski
Address: 21001 St Rt 739
Raymond, OH 43067

Location of proposed air contaminant source(s) [emissions unit(s)]:
**21001 St Rt 739
Raymond, Ohio**

Description of proposed emissions unit(s):
Dynamometer, vehicle, engine, exhaust vent.

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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.10 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 to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports 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 reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

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

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 To Install 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 thirty (30) 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.

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

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

3. 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. 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.

5. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install 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.

6. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

7. 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.

8. 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).

9. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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.

10. 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., 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	189.25
OC	70.6
PM	4.09
NOx	46.74
SOx	2.09

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B012 - High Temperature Dynamometer (HTD), vehicle emissions testing, Bldg. 7 (Modification)	OAC rule 3745-31-05(A)(3)	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.07 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.02 lbs of nitrogen oxides/hr 2.18 lbs of organic compounds/hr 9.82 lbs of carbon monoxide/hr Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.30 ton particulate emissions/yr 0.232 ton of sulfur dioxide/yr 4.46 tons of nitrogen oxides/yr 9.55 tons of organic compounds/yr 43.0 tons of carbon monoxide/yr Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-17-07(A)	None, see A.I.2.b below.
	OAC rule 3745-17-11(B)(1)	None, see A.I.2.a below.
	OAC rule 3745-21-08(B)	None, see A.I.2.c below.
	OAC rule 3745-23-06(B)	None, see A.I.2.c below.

OAC rule 3745-18-06

None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), 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.
- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.d The hourly and annual emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall perform weekly checks, when the weather conditions allow, for any visible particulate emissions from all the stacks serving the uncontrolled dynamometers which are in operation at the time of the weekly checks. At a minimum, the visible particulate emissions from each uncontrolled dynamometer stack shall be checked on a quarterly basis unless the dynamometer does not operate during the calendar quarter. The facility shall maintain records showing the operation time(s) of each dynamometer during each calendar quarter. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;

- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

The visible emissions check is not required to be performed by individuals certified to conduct U.S. EPA Reference Method 9 observations.

No earlier than 6 months from issuance of this permit, the permittee may, upon receipt of written approval from the Ohio EPA Central District Office, modify the frequencies of the visible particulate emissions checks if operating experience indicates that less frequent checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. Such modified visible particulate emissions check frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from any of the stacks serving the uncontrolled dynamometers and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 9.82 lbs/hr and 43.0 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly carbon monoxide emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.372 pound of carbon monoxide per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The

hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr})]$. The annual carbon monoxide emission limitation was established by multiplying the hourly emission rate (9.82 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Carbon monoxide emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 2.18 lbs/hr and 9.55 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly organic compound emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0825 pounds of organic compounds per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr})]$. The annual organic compound emission limitation was established by multiplying the hourly emission rate (2.18 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Organic compound emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.07 lb/hr and 0.30 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0025 pounds of particulates per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.066 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these

limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.02 lbs/hr and 4.46 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly nitrogen oxide emission rate was developed using the emission limit from PTI #01-6489 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (102 lbs of nitrogen oxides/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0463 pounds of nitrogen oxide per gallon of gasoline (1.02 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.003 lbs/gal). The annual nitrogen oxide emission limitation was established by multiplying the established hourly emission rate (1.02 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly sulfur dioxide emission rate was developed using the emission limit from PTI #01-6489 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of sulfur dioxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0001 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6489 issued 6/1/00.

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>
B012 - High Temperature Dynamometer (HTD), vehicle emissions testing, Bldg. 7 (Modification)	None	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

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

- 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>
B013 - Performance Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 101 (Modification)	OAC rule 3745-31-05(A)(3)	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.124 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.32 lbs of nitrogen oxides/hr 1.48 lbs of organic compounds/hr 0.79 lb of carbon monoxide/hr Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.543 ton of particulate emissions/yr 0.232 ton of sulfur dioxide/yr 5.78 tons of nitrogen oxides/yr 6.48 tons of organic compounds/yr 3.45 ton of carbon monoxide/yr
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average except as provided by rule.
	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), and see A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

OAC rule 3745-21-08(B)

See A.I.2.b below.

OAC rule 3745-18-06

None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a** The internal combustion engines used in association with this emissions unit have a rated power of less than or equal to 600 horsepower and are not used to, or intended to, propel any vehicle.
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.c** The particulate, nitrogen oxides, sulfur dioxide, and organic compound emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

1. This emissions unit shall be vented to a thermal incinerator which shall reduce carbon monoxide emissions to not more than 0.79 pound per hour.
2. The average combustion temperature within the thermal incinerator, 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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information each day for the control equipment:
 - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and

- b. all 3-hour blocks of time during which the average combustion temperatures 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 that the emissions unit was in compliance.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above. These reports shall be submitted as required in the General Terms and Conditions, Part I, Section A.1.c.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 0.79 lb/hr and 3.45 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (3,940 lbs of carbon monoxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines and by the 2% carbon monoxide loss after control. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.036 pounds of carbon monoxide per gallon of gasoline (0.79 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0047 lbs/gal). The annual carbon monoxide emission limitation was established by multiplying the established hourly emission rate (0.79 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 1.48 lbs/hr and 6.48 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly organic compound emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (148 lbs of organic compounds/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.067 pounds of organic compounds per gallon of gasoline (1.48 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0002 lbs/gal). The annual organic compound emission limitation was established by multiplying the established hourly emission rate (1.48 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.124 lb/hr and 0.543 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.0047 pounds of particulates per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.124 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.32 lbs/hr and 5.78 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly nitrogen oxide emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.05 pounds of nitrogen oxide per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr})]$. The annual nitrogen oxide emission limitation was established by multiplying the hourly emission rate (1.32 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Nitrogen oxide emissions could not exceed these limits, since they were developed using the "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of SO₂/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0012 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6771 issued 7/18/00.

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>
B013 - Performance Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 101 (Modification)	None	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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B014 - Performance Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 103 (Modification)	OAC rule 3745-31-05(A)(3)	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.124 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.32 lbs of nitrogen oxides/hr 1.48 lbs of organic compounds/hr 0.79 lb of carbon monoxide/hr Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.543 ton of particulate emissions/yr 0.232 ton of sulfur dioxide/yr 5.78 tons of nitrogen oxides/yr 6.48 tons of organic compounds/yr 3.45 ton of carbon monoxide/yr
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average except as provided by rule.
	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), and see A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

OAC rule 3745-21-08(B)

See A.I.2.b below.

OAC rule 3745-18-06

None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a The internal combustion engines used in association with this emissions unit have a rated power of less than or equal to 600 horsepower and are not used to, or intended to, propel any vehicle.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.c The particulate, nitrogen oxides, sulfur dioxide, and organic compound emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

- 1. This emissions unit shall be vented to a thermal incinerator which shall reduce carbon monoxide emissions to not more than 0.79 pound per hour.
- 2. The average combustion temperature within the thermal incinerator, 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.

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- 2. The permittee shall collect and record the following information each day for the control equipment:
 - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and

- b. all 3-hour blocks of time during which the average combustion temperatures 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 that the emissions unit was in compliance.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above. These reports shall be submitted as required in the General Terms and Conditions, Part I, Section A.1.c.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 0.79 lb/hr and 3.45 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (3,940 lbs of carbon monoxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines and by the 2% carbon monoxide loss after control. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.036 pounds of carbon monoxide per gallon of gasoline (0.79 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0047 lbs/gal). The annual carbon monoxide emission limitation was established by multiplying the established hourly emission rate (0.79 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 1.48 lbs/hr and 6.48 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly organic compound emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (148 lbs of organic compounds/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.067 pounds of organic compounds per gallon of gasoline (1.48 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0002 lbs/gal). The annual organic compound emission limitation was established by multiplying the established hourly emission rate (1.48 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.124 lb/hr and 0.543 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.0047 pounds of particulates per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.124 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.32 lbs/hr and 5.78 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly nitrogen oxide emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.05 pounds of nitrogen oxide per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr})]$. The annual nitrogen oxide emission limitation was established by multiplying the hourly emission rate (1.32 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Nitrogen oxide emissions could not exceed these limits, since they were developed using the "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of SO₂/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0012 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6771 issued 7/18/00.

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>
B014 - Performance Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 103 (Modification)	None	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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B015 - Durability Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 105 (Modification)	OAC rule 3745-31-05(A)(3)	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.124 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.32 lbs of nitrogen oxides/hr 1.48 lbs of organic compounds/hr 0.79 lb of carbon monoxide/hr Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.543 ton of particulate emissions/yr 0.232 ton of sulfur dioxide/yr 5.78 tons of nitrogen oxides/yr 6.48 tons of organic compounds/yr 3.45 ton of carbon monoxide/yr
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average except as provided by rule.
	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), and see A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

OAC rule 3745-21-08(B)	See A.I.2.b below.
OAC rule 3745-18-06	None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a The internal combustion engines used in association with this emissions unit have a rated power of less than or equal to 600 horsepower and are not used to, or intended to, propel any vehicle.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.c The particulate, nitrogen oxides, sulfur dioxide, and organic compound emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

- 1. This emissions unit shall be vented to a thermal incinerator which shall reduce carbon monoxide emissions to not more than 0.79 pound per hour.
- 2. The average combustion temperature within the thermal incinerator, 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.

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- 2. The permittee shall collect and record the following information each day for the control equipment:
 - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and

- b. all 3-hour blocks of time during which the average combustion temperatures 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 that the emissions unit was in compliance.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above. These reports shall be submitted as required in the General Terms and Conditions, Part I, Section A.1.c.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 0.79 lb/hr and 3.45 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (3,940 lbs of carbon monoxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines and by the 2% carbon monoxide loss after control. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.036 pounds of carbon monoxide per gallon of gasoline (0.79 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0047 lbs/gal). The annual carbon monoxide emission limitation was established by multiplying the established hourly emission rate (0.79 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 1.48 lbs/hr and 6.48 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly organic compound emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (148 lbs of organic compounds/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.067 pounds of organic compounds per gallon of gasoline (1.48 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0002 lbs/gal). The annual organic compound emission limitation was established by multiplying the established hourly emission rate (1.48 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.124 lb/hr and 0.543 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.0047 pounds of particulates per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.124 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.32 lbs/hr and 5.78 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly nitrogen oxide emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.05 pounds of nitrogen oxide per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr})]$. The annual nitrogen oxide emission limitation was established by multiplying the hourly emission rate (1.32 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Nitrogen oxide emissions could not exceed these limits, since they were developed using the "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of SO₂/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0012 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6771 issued 7/18/00.

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>
B015 - Durability Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 105 (Modification)	None	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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B016 - Transmission Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 107 (Modification)	OAC rule 3745-31-05(A)(3)	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.124 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.32 lbs of nitrogen oxides/hr 1.48 lbs of organic compounds/hr 0.79 lb of carbon monoxide/hr Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.543 ton of particulate emissions/yr 0.232 ton of sulfur dioxide/yr 5.78 tons of nitrogen oxides/yr 6.48 tons of organic compounds/yr 3.45 ton of carbon monoxide/yr
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average except as provided by rule.
	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), and see A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

OAC rule 3745-21-08(B)

See A.I.2.b below.

OAC rule 3745-18-06

None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a** The internal combustion engines used in association with this emissions unit have a rated power of less than or equal to 600 horsepower and are not used to, or intended to, propel any vehicle.
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.c** The particulate, nitrogen oxides, sulfur dioxide, and organic compound emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

- 1. This emissions unit shall be vented to a thermal incinerator which shall reduce carbon monoxide emissions to not more than 0.79 pound per hour.
- 2. The average combustion temperature within the thermal incinerator, 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.

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- 2. The permittee shall collect and record the following information each day for the control equipment:
 - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and

- b. all 3-hour blocks of time during which the average combustion temperatures 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 that the emissions unit was in compliance.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above. These reports shall be submitted as required in the General Terms and Conditions, Part I, Section A.1.c.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 0.79 lb/hr and 3.45 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (3,940 lbs of carbon monoxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines and by the 2% carbon monoxide loss after control. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.036 pounds of carbon monoxide per gallon of gasoline (0.79 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0047 lbs/gal). The annual carbon monoxide emission limitation was established by multiplying the established hourly emission rate (0.79 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 1.48 lbs/hr and 6.48 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly organic compound emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (148 lbs of organic compounds/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.067 pounds of organic compounds per gallon of gasoline (1.48 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0002 lbs/gal). The annual organic compound emission limitation was established by multiplying the established hourly emission rate (1.48 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.124 lb/hr and 0.543 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.0047 pounds of particulates per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.124 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.32 lbs/hr and 5.78 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly nitrogen oxide emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.05 pounds of nitrogen oxide per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.05 \text{ lbs NOx/gal} \times 22 \text{ gal/hr})]$. The annual nitrogen oxide emission limitation was established by multiplying the hourly emission rate (1.32 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Nitrogen oxide emissions could not exceed these limits, since they were developed using the "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6771 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of SO₂/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0012 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6771 issued 7/18/00.

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>
B016 - Transmission Dynamometer, engine testing w/ incinerator control, Bldg. 5, Room 107 (Modification)	None	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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B018 - Gasoline Engine Testing Dynamometer (EAC 1), Bldg. 7 (Modification)	OAC rule 3745-31-05(A)(3),	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations:
		0.07 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.02 lbs of nitrogen oxides/hr 2.18 lbs of organic compounds/hr 9.82 lbs of carbon monoxide/hr
		Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations:
		0.30 ton particulate emissions/yr 0.232 ton of sulfur dioxide/yr 4.46 tons of nitrogen oxides/yr 9.55 tons of organic compounds/yr 43.0 tons of carbon monoxide/yr
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average except as provided by rule.
	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), and see A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

OAC rule 3745-21-08(B)	See A.I.2.b below.
OAC rule 3745-18-06	None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a The internal combustion engines used in association with this emissions unit have a rated power of less than or equal to 600 horsepower and are not used to, or intended to, propel any vehicle.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.c The hourly and annual emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall perform weekly checks, when the weather conditions allow, for any visible particulate emissions from all the stacks serving the uncontrolled dynamometers which are in operation at the time of the weekly checks. At a minimum, the visible particulate emissions from each uncontrolled dynamometer stack shall be checked on a quarterly basis unless the dynamometer does not operate during the calendar quarter. The facility shall maintain records showing the operation time(s) of each dynamometer during each calendar quarter. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and

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

The visible emissions check is not required to be performed by individuals certified to conduct U.S. EPA Reference Method 9 observations.

No earlier than 6 months from issuance of this permit, the permittee may, upon receipt of written approval from the Ohio EPA Central District Office, modify the frequencies of the visible particulate emissions checks if operating experience indicates that less frequent checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. Such modified visible particulate emissions check frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from any of the stacks serving the uncontrolled dynamometers and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 9.82 lbs/hr and 43.0 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly carbon monoxide emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.372 pound of carbon monoxide per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr})]$. The annual carbon monoxide emission limitation was established by multiplying the hourly emission rate (9.82 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Carbon monoxide emissions could

not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 2.18 lbs/hr and 9.55 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly organic compound emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0825 pounds of organic compounds per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr})]$. The annual organic compound emission limitation was established by multiplying the hourly emission rate (2.18 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Organic compound emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.07 lb/hr and 0.30 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0025 pounds of particulates per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.066 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.02 lbs/hr and 4.46 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly nitrogen oxide emission rate was developed using the emission limit from PTI #01-6422 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (102 lbs of nitrogen oxides/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0463 pounds of nitrogen oxide per gallon of gasoline (1.02 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.003 lbs/gal). The annual nitrogen oxide emission limitation was established by multiplying the established hourly emission rate (1.02 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly sulfur dioxide emission rate was developed using the emission limit from PTI #01-6422 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of sulfur dioxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0001 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6422 issued 7/27/00.

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>
B018 - Gasoline Engine Testing Dynamometer (EAC 1), Bldg. 7 (Modification)	None	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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B019 - Power Train Simulator Dynamometer (PTS), engine testing w/ incinerator control, Bldg. 5 (Modification)	OAC rule 3745-31-05(A)(3)	<p>Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations:</p> <p>0.124 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.32 lbs of nitrogen oxides/hr 1.48 lbs of organic compounds/hr 0.79 lb of carbon monoxide/hr</p> <p>Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations:</p> <p>0.543 ton of particulate emissions/yr 0.232 ton of sulfur dioxide/yr 5.78 tons of nitrogen oxides/yr 6.48 tons of organic compounds/yr 3.45 ton of carbon monoxide/yr</p>
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average except as provided by rule.
	OAC rule 3745-17-11(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), and see A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

OAC rule 3745-21-08(B)

See A.I.2.b below.

OAC rule 3745-18-06

None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a** The internal combustion engines used in association with this emissions unit have a rated power of less than or equal to 600 horsepower and are not used to, or intended to, propel any vehicle.
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.c** The particulate, nitrogen oxides, sulfur dioxide, and organic compound emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

1. This emissions unit shall be vented to a thermal incinerator which shall reduce carbon monoxide emissions to not more than 0.79 pound per hour.
2. The average combustion temperature within the thermal incinerator, 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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information each day for the control equipment:
 - a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and

- b. all 3-hour blocks of time during which the average combustion temperatures 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 that the emissions unit was in compliance.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above. These reports shall be submitted as required in the General Terms and Conditions, Part I, Section A.1.c.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 0.79 lb/hr and 3.45 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6781 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (3,940 lbs of carbon monoxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines and by the 2% carbon monoxide loss after control. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.036 pounds of carbon monoxide per gallon of gasoline (0.79 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0047 lbs/gal). The annual carbon monoxide emission limitation was established by multiplying the established hourly emission rate (0.79 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 1.48 lbs/hr and 6.48 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly organic compound emission rate was developed using the emission limit from PTI #01-6781 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (148 lbs of organic compounds/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.067 pounds of organic compounds per gallon of gasoline (1.48 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0002 lbs/gal). The annual organic compound emission limitation was established by multiplying the established hourly emission rate (1.48 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.124 lb/hr and 0.543 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.0047 pounds of particulates per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0047 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.124 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.32 lbs/hr and 5.78 tons/yr.

Applicable Compliance Method:

The maximum controlled hourly nitrogen oxide emission rate was developed using emissions test data from a similar unit tested on 6/2/01, that established an emission factor of 0.05 pounds of nitrogen oxide per gallon of gasoline, with an average gasoline usage of 17 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.05 \text{ lbs NO}_x/\text{gal} \times 22 \text{ gal/hr}) + (20\% \times 0.05 \text{ lbs NO}_x/\text{gal} \times 22 \text{ gal/hr})]$. The annual nitrogen oxide emission limitation was established by multiplying the hourly emission rate (1.32 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Nitrogen oxide emissions could not exceed these limits, since they were developed using the "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum controlled hourly carbon monoxide emission rate was developed using the emission limit from PTI #01-6781 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of SO₂/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/2/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0012 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6781 issued in June of 2000.

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>
B019 - Power Train Simulator Dynamometer (PTS), engine testing w/ incinerator control, Bldg. 5 (Modification)	None	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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B021 - Hot/Cold Chamber Dynamometer (HCC), vehicle emissions testing, Bldg. 7 (Modification)	OAC rule 3745-31-05(A)(3)	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.07 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.02 lbs of nitrogen oxides/hr 2.18 lbs of organic compounds/hr 9.82 lbs of carbon monoxide/hr Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.30 ton particulate emissions/yr 0.232 ton of sulfur dioxide/yr 4.46 tons of nitrogen oxides/yr 9.55 tons of organic compounds/yr 43.0 tons of carbon monoxide/yr Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-17-07(A)	None, see A.I.2.b below.
	OAC rule 3745-17-11(B)(1)	None, see A.I.2.a below.
	OAC rule 3745-21-08(B)	None, see A.I.2.c below.
	OAC rule 3745-23-06(B)	None, see A.I.2.c below.

OAC rule 3745-18-06

None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), 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.
- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.d The hourly and annual emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall perform weekly checks, when the weather conditions allow, for any visible particulate emissions from all the stacks serving the uncontrolled dynamometers which are in operation at the time of the weekly checks. At a minimum, the visible particulate emissions from each uncontrolled dynamometer stack shall be checked on a quarterly basis unless the dynamometer does not operate during the calendar quarter. The facility shall maintain records showing the operation time(s) of each dynamometer during each calendar quarter. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;

- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

The visible emissions check is not required to be performed by individuals certified to conduct U.S. EPA Reference Method 9 observations.

No earlier than 6 months from issuance of this permit, the permittee may, upon receipt of written approval from the Ohio EPA Central District Office, modify the frequencies of the visible particulate emissions checks if operating experience indicates that less frequent checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. Such modified visible particulate emissions check frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from any of the stacks serving the uncontrolled dynamometers and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 9.82 lbs/hr and 43.0 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly carbon monoxide emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.372 pound of carbon monoxide per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The

hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr})]$. The annual carbon monoxide emission limitation was established by multiplying the hourly emission rate (9.82 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Carbon monoxide emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 2.18 lbs/hr and 9.55 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly organic compound emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0825 pounds of organic compounds per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr})]$. The annual organic compound emission limitation was established by multiplying the hourly emission rate (2.18 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Organic compound emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.07 lb/hr and 0.30 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0025 pounds of particulates per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.066 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these

limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.02 lbs/hr and 4.46 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly nitrogen oxide emission rate was developed using the emission limit from PTI #01-6811 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (102 lbs of nitrogen oxides/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0463 pounds of nitrogen oxide per gallon of gasoline (1.02 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.003 lbs/gal). The annual nitrogen oxide emission limitation was established by multiplying the established hourly emission rate (1.02 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly sulfur dioxide emission rate was developed using the emission limit from PTI #01-6811 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of sulfur dioxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0001 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-6811 issued 7/20/00.

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>
B021 - Hot/Cold Chamber Dynamometer (HCC), vehicle emissions testing, Bldg. 7 (Modification)	None	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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B022 - 4 Wheel Drive Dynamometer(4WD), vehicle emissions testing, Bldg. 7 (Modification)	OAC rule 3745-31-05(A)(3)	Hourly emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.07 lb of particulate emissions/hr 0.053 lb of sulfur dioxide/hr 1.02 lbs of nitrogen oxides/hr 2.18 lbs of organic compounds/hr 9.82 lbs of carbon monoxide/hr Annual emissions from the combustion of gasoline in this emissions unit shall not exceed the following limitations: 0.30 ton particulate emissions/yr 0.232 ton of sulfur dioxide/yr 4.46 tons of nitrogen oxides/yr 9.55 tons of organic compounds/yr 43.0 tons of carbon monoxide/yr Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.
	OAC rule 3745-17-07(A)	None, see A.I.2.b below.
	OAC rule 3745-17-11(B)(1)	None, see A.I.2.a below.
	OAC rule 3745-21-08(B)	None, see A.I.2.c below.
	OAC rule 3745-23-06(B)	None, see A.I.2.c below.

OAC rule 3745-18-06

None, exempt pursuant to OAC rule 3745-18-06(B).

2. Additional Terms and Conditions

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), 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.
- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 (Control of carbon monoxide emissions from stationary sources) and 3745-23-06 (Control of nitrogen oxides emissions from stationary sources), respectively by committing to comply with the best available technology requirements.
- 2.d The hourly and annual emission limitations specified in Section A.I.1 reflect the emissions unit's potential to emit for these pollutants; therefore, there are no additional monitoring, record keeping or reporting requirements associated with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall perform weekly checks, when the weather conditions allow, for any visible particulate emissions from all the stacks serving the uncontrolled dynamometers which are in operation at the time of the weekly checks. At a minimum, the visible particulate emissions from each uncontrolled dynamometer stack shall be checked on a quarterly basis unless the dynamometer does not operate during the calendar quarter. The facility shall maintain records showing the operation time(s) of each dynamometer during each calendar quarter. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;

- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

The visible emissions check is not required to be performed by individuals certified to conduct U.S. EPA Reference Method 9 observations.

No earlier than 6 months from issuance of this permit, the permittee may, upon receipt of written approval from the Ohio EPA Central District Office, modify the frequencies of the visible particulate emissions checks if operating experience indicates that less frequent checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. Such modified visible particulate emissions check frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from any of the stacks serving the uncontrolled dynamometers and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit annual reports which specify the total emissions of particulates, sulfur dioxide, nitrogen oxides, organic compounds, and carbon monoxide from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.I.1 of this permit shall be determined in accordance with the following methods:

1. Emission Limitations:

Carbon monoxide emissions shall not exceed 9.82 lbs/hr and 43.0 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly carbon monoxide emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.372 pound of carbon monoxide per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The

hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.372 \text{ lbs CO/gal} \times 22 \text{ gal/hr})]$. The annual carbon monoxide emission limitation was established by multiplying the hourly emission rate (9.82 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Carbon monoxide emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

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

2. Emission Limitations:

Organic compound emissions shall not exceed 2.18 lbs/hr and 9.55 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly organic compound emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0825 pounds of organic compounds per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0825 \text{ lbs OC/gal} \times 22 \text{ gal/hr})]$. The annual organic compound emission limitation was established by multiplying the hourly emission rate (2.18 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Organic compound emissions could not exceed these limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, with results converted to an "as propane" basis.

3. Emission Limitations:

Particulate emissions shall not exceed 0.07 lb/hr and 0.30 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly particulate emission rate was developed using emissions test data from a similar unit tested on 6/4/01, that established an emission factor of 0.0025 pounds of particulates per gallon of gasoline, with an average gasoline usage of 20 gallons per hour. The hourly emission limit was established by multiplying this factor by 22 gallons per hour (maximum future potential fuel usage), and adding a 20% safety factor for the imprecision in testing methods $[(0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr}) + (20\% \times 0.0025 \text{ lbs PE/gal} \times 22 \text{ gal/hr})]$. The annual particulate emission limitation was established by multiplying the hourly emission rate (0.066 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton. Particulate emissions could not exceed these

limits, since they were developed using a "worst-case" stack test with the additional 20% safety factor.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

4. Emission Limitations:

Nitrogen oxide emissions shall not exceed 1.02 lbs/hr and 4.46 tons/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly nitrogen oxide emission rate was developed using the emission limit from PTI #01-08153 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (102 lbs of nitrogen oxides/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0463 pounds of nitrogen oxide per gallon of gasoline (1.02 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.003 lbs/gal). The annual nitrogen oxide emission limitation was established by multiplying the established hourly emission rate (1.02 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

If required, the permittee shall demonstrate compliance with the hourly organic compound emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7E.

5. Emission Limitations:

Sulfur dioxide emissions shall not exceed 0.053 lb/hr and 0.232 ton/yr.

Applicable Compliance Method:

The maximum uncontrolled hourly sulfur dioxide emission rate was developed using the emission limit from PTI #01-08153 at double the fuel usage. This limit was developed by multiplying 10 gallons per hour by the emission factor from U.S. EPA's Factor Information Retrieval Data System (FIRE 6.01) for criteria air pollutants (5.31 lbs of sulfur dioxide/1000 gallons of gasoline burned), using SCC number 20400401 for reciprocation gasoline engines. By maintaining this limit at the new maximum fuel usage of 22 gallons per hour, the revised emission factor would be 0.0024 pounds of sulfur dioxide per gallon of gasoline (0.053 lbs/hr / 22 gal/hr). The permittee has submitted documentation of emissions testing results (conducted on 6/4/01 for a similar unit), that demonstrate compliance with this limit can be maintained at worst-case conditions on this unit (test results: 0.0001 lbs/gal). The annual sulfur dioxide emission limitation was established by multiplying the established hourly emission rate (0.053 lbs/hr) by 8760 hours per year and dividing by 2000 pounds per ton.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

This Permit to Install (01-08447) supercedes and replaces PTI #01-08153 issued 4/26/00.

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>
B022 - 4 Wheel Drive Dynamometer(4WD), vehicle emissions testing, Bldg. 7 (Modification)	None	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

None