



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
ROSS COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:
Lazarus Gov.
Center

Application No: 06-07156

DATE: 5/8/2003

Kenworth Truck Co.
Kenneth Legner
65 Kenworth Dr.
Chillicothe, OH 45601

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,
Michael W. Ahern
Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

SEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: 5/8/2003
Effective Date: 5/8/2003**

FINAL PERMIT TO INSTALL 06-07156

Application Number: 06-07156
APS Premise Number: 0671010121
Permit Fee: **\$2000**
Name of Facility: Kenworth Truck Co.
Person to Contact: Kenneth Legner
Address: 65 Kenworth Dr.
Chillicothe, OH 45601

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

**65 Kenworth Dr.
Chillicothe, Ohio**

Description of proposed emissions unit(s):

Dynamometer 1 and 2 and paved roadways.

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 Record keeping 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 record keeping 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 record keeping 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

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

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, record keeping, 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

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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.

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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 ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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

12. Air Pollution Nuisance

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

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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

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 record keeping 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

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

4. 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.

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5. 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.

6. Public Disclosure

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

7. Applicability

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

8. Construction Compliance Certification

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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.

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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>
PE	7.23
SO _x	7.66
NO _x	24.6
VOC	9.38
CO	5.78

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

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>
F001 - Paved Plant Roadways and Parking Areas	OAC rule 3745-31-05(A)(3)	Total particulate emissions (PE) shall not exceed 6.47 tons per year. No visible particulate emissions except for one minute during any 60-minute period. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b through A.2.f)

2. Additional Terms and Conditions

- 2.a The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

paved roadways:

All

paved parking areas:

All

- 2.b The permittee shall employ best available control measures on all paved roadways and

parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee’s permit application, the permittee has committed to sweep the paved roadways and parking areas at sufficient frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c The needed frequencies of implementation of the control measures shall be determined by the permittee’s inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- 2.d The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.e Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.f Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of the paved roadways and parking areas in accordance with the following frequencies:

<u>paved roadways</u>	<u>minimum inspection frequency</u>
All	Weekly

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Emissions Unit ID: **F001**

paved parking areas

minimum inspection frequency

All

Weekly

2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

3. The permittee shall maintain records of the following information:
 - a. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. The dates the control measures were implemented; and
 - d. On a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 3.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. Each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. Each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the

General Terms and Conditions of this permit.

V. Testing Requirements

1. Emission Limitation:

No visible particulate emissions except for one minute during any 60-minute period

Compliance Method:

If required, compliance with the emission limitation for the paved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

2. Emission Limitation:

Total particulate emissions (PE) shall not exceed 6.47 tons per year.

Compliance Method:

The emission factor calculation for paved roadways and parking areas in AP-42 section 13.2.1-5 (September, 1998) shall be utilized to determine compliance. Initial compliance has been determined using inputs representing Potential To Emit (PTE) conditions as follows:

$$E = K \times (SL/2)^{0.65} \times (W/3)^{1.5} \times (1 - P/4N)$$

Where

E = size-specific emission factor (lb/VMT)

K = particle size multiplier = 0.082

SL = silt content of road surface material (g/m²) = 0.4g/m²

W = mean vehicle weight (tons) = 4.2

P = number of "wet" days with at least 0.01 inch of precipitation during period = 136

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$N = \text{number of days in averaging period} = 365$

Using the values in the above equation, the PE factors were used to calculate emissions as follows:

$$E = 0.082 \times (0.4/2)^{0.65} \times (4.2/3)^{1.5} \times [1 - (136/4 \times 365)]$$

$$E = 0.043 \text{ lb/VMT}$$

Now, to calculate the actual emissions, multiply the emission factor by VMT/hr, and VMT/yr, to obtain the annual PE rates:

$$\text{Annual: } PE \text{ (TPY)} = (0.043 \text{ lb/VMT}) \times (299,083 \text{ VMT/yr}) / (2000 \text{ lb/ton})$$

$$PE \text{ (TPY)} = 6.466$$

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Plant Roadways and Parking Areas	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

**Kenwa
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Emissions Unit ID: **P007**

Applicable Emissions
Limitations/Control
Measures

See A.I.1.2.a. and A.II.1.

See A.I.1.2.b.

Particulate emissions (PE)
shall not exceed 0.10 lb/hr
and 0.38 ton/yr.

See A.I.1.2.c.

See A.I.1.2.d.

Sulfur Oxide (SO_x)
emissions shall not
exceed 1.02 lbs/hr and 3.83
tons/yr.

Nitrogen Oxide (NO_x)
emissions shall not exceed
3.28 lbs/hr and 12.3 tons/yr.

Organic Compound (OC)
emissions shall not exceed
1.25 lbs/hr and 4.69 tons/yr.

Carbon Monoxide (CO)
emissions shall not exceed
0.77 lb/hr and 2.89 tons/yr.

See A.1.2.a.

The combined annual
emissions (based upon a
rolling 12-month summation)
for emissions units P007 and
P008 shall not exceed the
following:

- PE: 0.76 ton/yr
- SO_x: 7.66 ton/yr
- NO_x: 24.6 tons/yr
- OC: 9.38 tons/yr
- CO: 5.78 tons/yr

2. Additional Terms and Conditions

- 2.a** The annual emissions limitations are based on the hourly emissions limitations and operating hours restrictions requested by the permittee in the application.
- 2.b** This emissions unit is exempt from the visible particulate emissions 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 uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(i), Figure II of OAC rule 3745-17-11 does not apply. Table I of OAC rule 3745-17-11 does not apply because the process weight rate, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.*
- * The only materials introduced into this process are liquid fuels that are used solely for the purpose of combustion.
- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

- 1.** The maximum annual operation for this emissions unit shall not exceed 7,500 hours, based upon a rolling, 12-month summation.

To ensure compliance during the first 12 calendar months following the startup of emissions unit P007, the permittee shall not exceed the monthly cumulative restrictions specified in the following table:

Month	Maximum Allowable Cumulative Operating Hours
1	744
1-2	1488
1-3	2232
1-4	2976
1-5	3,720
1-6	4,464
1-7	5,208
1-8	5,952
1-9	6,696
1-10	7,440
1-11	7,500

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Emissions Unit ID: **P007**

1-12	7,500
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After the first 12 calendar months following the startup of emissions unit P007, compliance with the annual operating restriction shall be based upon a rolling, 12-month summation.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following for this emissions unit:
 - a. The monthly operating hours; and
 - b. The rolling, 12-month summation of operating hours.
 - c. For the first twelve months of operation following the issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation and, for the first twelve calendar months of operation, all exceedances of the maximum allowable cumulative emissions limitations. The deviation reports shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

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

- a. Emission Limitation:

Particulate emissions (PE) shall not exceed 0.10 lb/hr and 0.38 ton/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor (based on federal heavy-duty truck engine emission standards) provided by the permittee.

$$E = (A \times B)$$

Where

$$E = \text{Emission Rate(lb/hr)}$$

$$A = \text{Emission Factor(lb/hp-hr)} = 0.00020$$

$$B = \text{Engine rating(hp)} = 495$$

$$E = 0.00020 \times 495$$

$$E = 0.098 \text{ lb/hr}$$

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

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

b. Emission Limitation:

Sulfur Oxide (SO_x) emissions shall not exceed 1.02 lbs/hr and 3.83 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor from USEPA's AP-42, section 3.3, Table 3.3-1.

$$E = (A \times B)$$

Where

$$E = \text{Emission Rate(lb/hr)}$$

$$A = \text{Emission Factor(lb/hp-hr)} = 0.00205$$

$$B = \text{Engine rating(hp)} = 495$$

$$E = 0.00205 \times 495$$

$$E = 1.015 \text{ lbs/hr}$$

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations,

compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Nitrogen Oxide (NO_x) emissions shall not exceed 3.28 lbs/hr and 12.3 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor (based on federal heavy-duty truck engine emission standards) provided by the permittee.

$$E = (A \times B)$$

Where

E = Emission Rate(lb/hr)

A = Emission Factor(lb/hp-hr) = 0.00661

B = Engine rating(hp) = 495

$$E = 0.00661 \times 495$$

$$E = 3.274 \text{ lbs/hr}$$

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Organic Compound (OC) emissions shall not exceed 1.25 lbs/hr and 4.69 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor from USEPA's AP-42, section 3.3, Table 3.3-2.

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$$E = (A \times B)$$

Where

$$\begin{aligned} E &= \text{Emission Rate(lb/hr)} \\ A &= \text{Emission Factor(lb/hp-hr)} = 0.00251 \\ B &= \text{Engine rating(hp)} = 495 \end{aligned}$$

$$\begin{aligned} E &= 0.00251 \times 495 \\ E &= 1.244 \text{ lbs/hr} \end{aligned}$$

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

Carbon Monoxide (CO) emissions shall not exceed 0.77 lb/hr and 2.89 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor (based on federal heavy-duty truck engine emission standards) provided by the permittee.

$$E = (A \times B)$$

Where

$$\begin{aligned} E &= \text{Emission Rate(lb/hr)} \\ A &= \text{Emission Factor(lb/hp-hr)} = 0.00154 \\ B &= \text{Engine rating(hp)} = 495 \end{aligned}$$

$$\begin{aligned} E &= 0.00154 \times 495 \\ E &= 0.764 \text{ lb/hr} \end{aligned}$$

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

VI. Miscellaneous Requirements

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PTI A

Issued: 5/8/2003

Emissions Unit ID: **P007**

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P007 - Dynamometer No. 1 (North)	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Kenworth Truck Co.
PTI Application: 06 07156
Issued

Facility ID: 0671010121

Emissions Unit ID: **P008**

Applicable Emissions
Limitations/Control
Measures

See A.I.1.2.d.

Particulate emissions (PE)
shall not exceed 0.10 lb/hr
and 0.38 ton/yr.

Sulfur Oxide (SO_x)
emissions shall not
exceed 1.02 lbs/hr and 3.83
tons/yr.

Nitrogen Oxide (NO_x)
emissions shall not exceed
3.28 lbs/hr and 12.3 tons/yr.

Organic Compound (OC)
emissions shall not exceed
1.25 lbs/hr and 4.69 tons/yr.

Carbon Monoxide (CO)
emissions shall not exceed
0.77 lb/hr and 2.89 tons/yr.

See A.1.2.a.

The combined annual
emissions (based upon a
rolling 12-month summation)
for emissions units P007 and
P008 shall not exceed the
following:

- PE: 0.76 ton/yr
- SO_x: 7.66 tons/yr
- NO_x: 24.6 tons/yr
- OC: 9.38 tons/yr
- CO: 5.78 tons/yr

See A.I.1.2.a. and A.II.1.

See A.I.1.2.b.

See A.I.1.2.c.

2. Additional Terms and Conditions

- 2.a** The annual emissions limitations are based on the hourly emissions limitations and operating hours restrictions requested by the permittee in the application.
- 2.b** This emissions unit is exempt from the visible particulate emissions 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 uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(i), Figure II of OAC rule 3745-17-11 does not apply. Table I of OAC rule 3745-17-11 does not apply because the process weight rate, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.*
- * The only materials introduced into this process are liquid fuels that are used solely for the purpose of combustion.
- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

- 1.** The maximum annual operation for this emissions unit shall not exceed 7,500 hours, based upon a rolling, 12-month summation.

To ensure compliance during the first 12 calendar months following the startup of emissions unit P008, the permittee shall not exceed the monthly cumulative restrictions specified in the following table:

Month	Maximum Allowable Cumulative Operating Hours
1	744
1-2	1488
1-3	2232
1-4	2976
1-5	3,720
1-6	4,464
1-7	5,208
1-8	5,952

1-9	6,696
1-10	7,440
1-11	7,500
1-12	7,500

After the first 12 calendar months following the startup of emissions unit P008, compliance with the annual operating restriction shall be based upon a rolling, 12-month summation.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following for this emissions unit:
 - a. The monthly operating hours; and
 - b. The rolling, 12-month summation of operating hours.
 - c. For the first twelve months of operation following the issuance of this permit, the permittee shall record the cumulative hours of operation for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation and, for the first twelve calendar months of operation, all exceedances of the maximum allowable cumulative emissions limitations. The deviation reports shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

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

- a. Emission Limitation:

Particulate emissions (PE) shall not exceed 0.10 lb/hr and 0.38 ton/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission

factor (based on federal heavy-duty truck engine emission standards) provided by the permittee.

$$E = (A \times B)$$

Where

E = Emission Rate(lb/hr)

A = Emission Factor(lb/hp-hr) = 0.00020

B = Engine rating(hp) = 495

$$E = 0.00020 \times 495$$

$$E = 0.098 \text{ lb/hr}$$

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

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

b. Emission Limitation:

Sulfur Oxide (SO_x) emissions shall not exceed 1.02 lbs/hr and 3.83 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor from USEPA's AP-42, section 3.3, Table 3.3-1.

$$E = (A \times B)$$

Where

E = Emission Rate(lb/hr)

A = Emission Factor(lb/hp-hr) = 0.00205

B = Engine rating(hp) = 495

$$E = 0.00205 \times 495$$

$$E = 1.015 \text{ lbs/hr}$$

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

Nitrogen Oxide (NO_x) emissions shall not exceed 3.28 lbs/hr and 12.3 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor (based on federal heavy-duty truck engine emission standards) provided by the permittee.

$$E = (A \times B)$$

Where

E = Emission Rate(lb/hr)

A = Emission Factor(lb/hp-hr) = 0.00661

B = Engine rating(hp) = 495

$$E = 0.00661 \times 495$$

$$E = 3.274 \text{ lbs/hr}$$

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

Organic Compound (OC) emissions shall not exceed 1.25 lbs/hr and 4.69 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission

factor from USEPA's AP-42, section 3.3, Table 3.3-2.

$$E = (A \times B)$$

Where

E = Emission Rate(lb/hr)

A = Emission Factor(lb/hp-hr) = 0.00251

B = Engine rating(hp) = 495

$$E = 0.00251 \times 495$$

$$E = 1.244 \text{ lbs/hr}$$

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

Carbon Monoxide (CO) emissions shall not exceed 0.77 lb/hr and 2.89 tons/yr.

Compliance Method:

Compliance shall be demonstrated by the following one time calculation using the emission factor (based on federal heavy-duty truck engine emission standards) provided by the permittee.

$$E = (A \times B)$$

Where

E = Emission Rate(lb/hr)

A = Emission Factor(lb/hp-hr) = 0.00154

B = Engine rating(hp) = 495

$$E = 0.00154 \times 495$$

$$E = 0.764 \text{ lb/hr}$$

The annual emissions (ton/yr) shall be determined by multiplying the calculated lb/hr emissions by the annual hours of operation and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the short term and operating hours limitations, compliance shall also be shown with the annual emission limitation.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P008 - Dynamometer No. 2 (South)	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 06-07156 Facility ID: 0671010121

FACILITY NAME Kenworth Truck Co.

FACILITY DESCRIPTION Class 8 Truck Manufacturing Facility CITY/TWP Chillicothe

SIC CODE 3711 SCC CODE unk. EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION Paved Plant Roadways and Parking Areas

DATE INSTALLED 1990

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	1.476	6.466		6.47
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? **NO**

NESHAP? **NO**

PSD? **NO**

OFFSET POLICY? **NO**

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Sweeping, weekly visual inspection. Compliance with all T & C's.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 06-07156 Facility ID: 0671010121

FACILITY NAME Kenworth Truck Co.

FACILITY DESCRIPTION Class 8 Truck Manufacturing Facility CITY/TWP Chillicothe

Emissions Unit ID: P008

SIC CODE 3711 SCC CODE 20400402 EMISSIONS UNIT ID P007

EMISSIONS UNIT DESCRIPTION Dynamometer No. 1 (North)

DATE INSTALLED 06/1994

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.10	0.438	0.10	0.38
PM ₁₀					
Sulfur Dioxide	Attainment	1.02	4.468	1.02	3.83
Organic Compounds	Attainment	1.25	5.475	1.25	4.69
Nitrogen Oxides	Attainment	3.28	14.367	3.28	12.3
Carbon Monoxide	Attainment	0.77	3.373	0.77	2.89
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NO NESHAP? NO PSD? NO OFFSET POLICY? NO

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Limit annual hours of operation to no more than 7,500. Compliance with all applicable rules and T & C's.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 06-07156 Facility ID: 0671010121

FACILITY NAME Kenworth Truck Co.

FACILITY DESCRIPTION Class 8 Truck Manufacturing Facility CITY/TWP Chillicothe

Emissions Unit ID: **P008**

SIC CODE 3711 SCC CODE 20400402 EMISSIONS UNIT ID P008

EMISSIONS UNIT DESCRIPTION Dynamometer No. 2 (South)

DATE INSTALLED 06/1994

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions		PTI Allowable	
		Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.10	0.438	0.10	0.38
PM ₁₀					
Sulfur Dioxide	Attainment	1.02	4.468	1.02	3.83
Organic Compounds	Attainment	1.25	5.475	1.25	4.69
Nitrogen Oxides	Attainment	3.28	14.367	3.28	12.3
Carbon Monoxide	Attainment	0.77	3.373	0.77	2.89
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NO NESHAP? NO PSD? NO OFFSET POLICY? NO

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Limit annual hours of operation to no more than 7,500. Compliance with all applicable rules and T & C's

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: