



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 04-01423**

**Fac ID: 0448011683**

**DATE: 5/4/2006**

Transmission Technology Corp  
Augusto Ventura  
4080 BENNETT RD, SUITE E  
TOLEDO, OH 43612

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  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

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

CC: USEPA

TDES



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**Permit To Install  
Terms and Conditions**

**Issue Date: 5/4/2006  
Effective Date: 5/4/2006**

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**FINAL PERMIT TO INSTALL 04-01423**

Application Number: 04-01423  
Facility ID: 0448011683  
Permit Fee: **\$200**  
Name of Facility: Transmission Technology Corp  
Person to Contact: Augusto Ventura  
Address: 4080 BENNETT RD, SUITE E  
TOLEDO, OH 43612

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**4080 Bennett Rd, Suite E  
Toledo, Ohio**

Description of proposed emissions unit(s):  
**Modification of P001 (test cell no.2) to also include a gasoline internal combustion engine for transmission life testing.**

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. 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 recordkeeping 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 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. Records Retention Requirements

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.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

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

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. 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.

**7. 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.

**8. 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.

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

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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.

#### **10. 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.

#### **11. Applicability**

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.

#### **12. 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.

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**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(s) covered by this permit.

**14. 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.

**15. 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.

**B. 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	24.8
NOx	7.87

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<b>PE</b>	<b>0.81</b>
<b>VOC</b>	<b>1.2</b>
<b>SO2</b>	<b>0.76</b>

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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>
P001 - 300 hp IC diesel engine and 60 hp IC engine used for transmission life testing, test cell #2	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-18-06(B)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-11(B)(5)(A)
	OAC rule 3745-21-07(B)
	OAC rule 3745-21-08(B)
	OAC rule 3745-23-06(B)

**Trans**  
**PTI A**  
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Emissions Unit ID: **P001**

<u>Applicable Emissions Limitations/Control Measures</u>	CO emissions shall not exceed 24.8 TPY
Particulate emissions (PE) shall not exceed 0.65 lb/hr (diesel)	Visible emissions shall not exceed 10% opacity, as a 6-minute average
PE emissions shall not exceed 0.008 lb/hr (gasoline)	Sulfur Dioxide Exemption
PE emissions shall not exceed 0.81 TPY	See Section II.A.2.a
Nitrogen Oxide (NOx) emissions shall not exceed 5.33 lb/hr (diesel)	See Section II.A.2.a
NOx emissions shall not exceed 0.93 lb/hr (gasoline)	See Section II.A.2.b
NOx emissions shall not exceed 7.87 TPY	See Section II.A.2.c
Volatile Organic Compound (VOC) emissions shall not exceed 0.76 lb/hr (diesel)	
VOC emissions shall not exceed 0.93 lb/hr (gasoline)	
VOC emissions shall not exceed 1.2 TPY	
Carbon Monoxide (CO) emissions shall not exceed 2 lb/hr (diesel)	
CO emissions shall not exceed 19.84 lb/hr (gasoline)	

## **2. Additional Terms and Conditions**

- 2.a** The requirements of this rule are equivalent to the emission limitations pursuant to best available technology requirements specified in OAC rule 3745-31-05(A)(5).
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with all applicable rules.
- 2.c** 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) in this Permit to Install.

## **B. Operational Restrictions**

1. The permittee shall burn only commercially available diesel or gasoline in this emissions unit.
2. The maximum annual operating rate for this emissions unit shall not exceed 2500 hrs/yr, based upon a rolling 12-month summation of the operating hours.

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

<u>Month</u>	<u>Maximum Allowable Cumulative Hours of Operation</u>
1	720
1-2	1440
1-3	2160
1-4	2500
1-5	2500
1-6	2500
1-7	2500
1-8	2500
1-9	2500

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1-10	2500
1-11	2500
1-12	2500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling 12 month summation of the operating hours.

### **C. Monitoring and/or Recordkeeping Requirements**

1. For each day during which the permittee burns a fuel other than commercially available diesel or gasoline fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall perform monthly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. 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 operation 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 emissions incident;
  - e. any corrective action taken to eliminate the visible.
3. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. beginning after the first 12 calendar months of operating of the first 12 calendar months following the issuance of this permit, the rolling 12-month summation of the operating hours.

Also, during the first 12 calendar months of operating of the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other commercially available diesel or gasoline fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semi-annual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services (TDOES) by January 31 and July 31 of each year and shall cover the previous 6 month period.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling 12-month operating hours limitation; and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours. These reports shall be submitted in accordance with the reporting requirements specified in Part-1 General Terms and Conditions, Section A of this permit.

#### **E. Testing Requirements**

1. Compliance with the emissions in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation

Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method

If required, compliance shall be determined through visible emissions observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR Part 60, Appendix A.

b. Emission Limitation

2.0 lb CO/hr (diesel)

Applicable Compliance Method

The emission limitations were based upon the emission factor from FIRE version 6.25 for SCC 2-04-004-02. Multiply the maximum fuel usage, 15.325 gallons/hr by the FIRE emission factor, 130 lb CO/1,000 gallons.

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

c. Emission Limitation

19.84 lb CO/hr (gasoline)

Applicable Compliance Method

The emission limitations were based upon the emission factor provided by the engine manufacturer. Compliance with the lb/hr emission limitation may be determined by multiplying the emission factor, 150 g/hp-hr by the conversion factor 1 lb/453.5924 g and multiplying by the engine's horsepower rating, 60 hp.

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

d. Emission Limitation

Emissions Unit ID: P001

24.8 TPY CO

## Applicable Compliance Method

Compliance with the annual emission limit may be determined by multiplying the gasoline lb CO/hr limitation by the restricted yearly operating limit, 2500 hr/yr and multiplying by 1 ton/2000 lbs.

## e. Emission Limitation

5.33 lb NOx/hr (diesel)

## Applicable Compliance Method:

The emission limitations were based upon emissions factors received from a 7/97 stack test

performed at Transmission Technologies Corporation. Compliance with the lb/hr emission limitation may be determined by multiplying the maximum hourly fuel usage, 15.325 gallons/hr by the emission factor by 290 lb NOx/1,000 gallons and multiplying by a 20% safety factor.

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

## f. Emission Limitation

0.93 lb NOx/hr (gasoline)

## Applicable Compliance Method

The emission limitations were based upon the emission factor provided by the engine manufacturer. Compliance with the lb/hr emission limitation may be determined by multiplying the emission factor, 7 g/hp-hr by the conversion factor 1 lb/453.5924 g and multiplying by the engine's horsepower rating, 60 hp.

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

## g. Emission Limitation

7.87 TPY NOx

Applicable Compliance Method

Compliance with the annual emission limit may be determined by multiplying the diesel

lb NOx/hr limitation by the restricted yearly operating limit, 2500 hr/yr and multiplying by 1 ton/2000 lbs.

h. Emission Limitation

0.76 lb VOC/hr (diesel)

Applicable Compliance Method

The emission limitations were based upon the emission factor from FIRE version 6.25 for SCC 2-04-004-02. Multiply the maximum fuel usage, 15.325 gallons/hr by the FIRE emission factor, 49.3 lb VOC/1,000 gallons.

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

i. Emission Limitation

0.93 lb VOC/hr (gasoline)

Applicable Compliance Method

The emission limitations were based upon the emission factor provided by the engine manufacturer. Compliance with the lb/hr emission limitation may be determined by multiplying the emission factor, 7 g/hp-hr by the conversion factor 1 lb/453.5924 g and multiplying by the engine's horsepower rating, 60 hp.

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

j. Emission Limitation

1.2 TPY VOC

Applicable Compliance Method

Compliance with the annual emission limit may be determined by multiplying the gasoline lb VOC /hr limitation by the restricted yearly operating limit, 2500 hr/yr and multiplying by 1 ton/2000 lbs.

k. Emission Limitation

0.65 lb PE/hr (diesel)

Applicable Compliance Method

The emission limitations were based upon the emission factor from FIRE version 6.25 for SCC 2-04-004-02. Multiply the maximum fuel usage, 15.325 gallons/hr by the FIRE emission factor, 42.5 lb PE/1,000 gallons.

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

I. Emission Limitation

0.008 lb PE/hr (gasoline)

Applicable Compliance Method

The emission limitations were based upon the emission factor provided by the engine manufacturer. Compliance with the lb/hr emission limitation may be determined by multiplying the emission factor, 0.06 g/hp-hr by the conversion factor 1 lb/453.5924 g and multiplying by the engine's horsepower rating, 60 hp.

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

m. Emission Limitation

0.81 TPY PE

Applicable Compliance Method

Compliance with the annual emission limit may be determined by multiplying the diesel lb PE/hr limitation by the restricted yearly operating limit, 2500 hr/yr and multiplying by 1 ton/2000 lbs.

**F. Miscellaneous Requirements**

The terms and conditions of this permit from A.1 thru E.1 are federally enforceable.

**Transmission Technology Corp**  
**PTI Application: 01-01122**  
**Issue**

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**Emissions Unit ID: P001**