



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov.
Center

RE: **FINAL PERMIT TO INSTALL**
CUYAHOGA COUNTY
Application No: 13-03495

CERTIFIED MAIL

DATE: 1/18/2001

Ford Cleveland Engine Plants
James Hostacky
18300 Five Points Road
Brook Park, OH 44142

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, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

CBAPC



Permit To Install
Terms and Conditions

Issue Date: 1/18/2001
Effective Date: 1/18/2001

FINAL PERMIT TO INSTALL 13-03495

Application Number: **13-03495**
APS Premise Number: **1318120179**
Permit Fee: **\$100**
Name of Facility: **Ford Cleveland Engine Plants**
Person to Contact: **James Hostacky**
Address: **18300 Five Points Road**
Brook Park, OH 44142

Location of proposed air contaminant source(s) [emissions unit(s)]:
18300 Five Points Road
Brook Park, OHIO

Description of modification:

Modification of PTI #13-2363 to change basis of NOx emission limits for Dynamometer with 4 cells and afterburner.

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

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GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(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 are inadequate or cannot meet applicable standards.

If the construction of the proposed source(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 Ohio Administrative Code (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 applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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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.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION 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 and regulations.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Ford Motor Co - Cleve-Engine Plant** located in **Cuyahoga** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P245 (Mod)	Dynamometer with 3 new engine test laboratory cells, a B & A Body and Assembly Cell (2 hours/week) for testing returned engines and an afterburner	Compliance with the terms and conditions of this permit; Incineration at 1,450 (plus or minus 50) degrees Fahrenheit for 0.3 seconds or longer in a 95 percent efficient direct-flame afterburner equipped with temperature recorder, interlock device and indicating pyrometer positioned at operator's work station	3745-31-05 3745-21-07 3745-21-08	Organic Compounds: 0.4 pound/hour 9.6 pounds/day 1.8 tons/year Nitrogen Oxides: 15.0 pounds/hour 360.0 pounds/day 30.7 tons per rolling 12 months Carbon Monoxide: 8.1 pounds/hour 194.4 pounds/day 35.5 tons/year

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant

Volatile Organic Compounds (VOC)

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Nitrogen Dioxide	<u>Tons/Year</u>
Carbon Monoxide	
	1.8
	30.7
	35.5

CONSTRUCTION STATUS

The **Cleveland Air Pollution Control** shall be notified in writing as to (a) the construction starting date, (b) the construction completion date, and (c) the date the facilities were placed into operation for the following sources: **Dynamometer**.

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.

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- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.

- C. Tests shall be performed for the following source(s) and pollutants(s):

Source

Pollutant(s)

P045

VOC, NO_x, and CO

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

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REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Cleveland Air Pollution Control, 1925 St. Clair Avenue, Cleveland, OH 44114.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Cleveland Air Pollution Control, 1925 St. Clair Avenue, Cleveland, OH 44114.**

Except as provided by OAC Rule 3745-15-06(A) (3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

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ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Operational Restrictions

1. The maximum annual gasoline consumption for this emissions unit shall not exceed 192,000 gallons, based upon a rolling, 12-month summation of the gasoline consumption figures.

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

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Gasoline Consumption Limit (Gallons of Gasoline)</u>
1	16,000
1-2	32,000
1-3	48,000
1-4	64,000
1-5	80,000
1-6	96,000
1-7	112,000
1-8	128,000
1-9	144,000
1-10	160,000
1-11	176,000
1-12	192,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual gasoline consumption limitation shall be based upon a rolling, 12-month summation of the gasoline consumption figures.

2. Emissions of carbon monoxide and organic compounds shall be controlled by incineration in a natural gas fired thermal direct--flame afterburner designed for a residence time of not less than 0.3 seconds.

The average combustion chamber 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 (1450 degrees Fahrenheit) during the most recent emission test that demonstrated the emissions unit was in compliance.

3. Ford Cleveland Engine Plant 2 shall install an interlocking device which does not allow any dynamometer to startup or operate unless the afterburner temperature is maintained at

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no less than 1,400 degrees Fahrenheit.

B. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the gallons of gasoline consumed; and,
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the gallons of gasoline consumed.
2. The permittee shall properly install, operate and maintain a continuous temperature monitor, recorder and controller which measures, records and controls the thermal incinerator combustion chamber temperature in degrees Fahrenheit when the emissions unit is in operation. The monitoring, recording and controlling devices shall be capable of accurately measuring, recording and controlling the desired parameter. The temperature monitor, recorder and controller shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. all 3-hour blocks of time during which the average combustion chamber temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature (1450 degrees Fahrenheit) during the most recent emission test that demonstrated the emissions unit was in compliance; and,
- b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

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C. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative gasoline consumption.
2. The permittee shall submit temperature deviation (excursion) reports which identify all 3-hour blocks of time during which the combustion chamber temperature within the thermal incinerator did not comply with the temperature limitation specified above.
3. The permittee shall submit deviation (excursion) reports which identify all instances when the interlocking device allowed any dynamometer to startup or operate when the thermal incinerator combustion chamber temperature was below the minimum 1,400 degrees Fahrenheit.
4. 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 Cleveland Air Pollution Control Agency; and,
 - b. 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 Cleveland Air Pollution Control 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 quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

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D. Testing Requirements and Compliance Methods

1. Compliance with the emission limitations in the Air Emission Summary for emissions unit P245 shall be determined in accordance with the following methods:

- a. Emission Limitation

OC: 0.4 lb OC/hour

Applicable Compliance Method

The permittee shall demonstrate compliance with the above value of pound OC/hour by emission testing in accordance Method 25 or 25A, 40 CFR Part 60, Appendix A.

Emission Limitation

OC: 9.6 lbs OC/day

Calculation of the pound OC per day limit:

Multiplying the above 0.4 lb OC per hour by 24 hours per day gives 9.6 lbs OC per day.

Emission Limitation

OC: 1.8 tons OC/year

Multiply 0.4 lb OC per hour by 8760 hours per year and multiplying the product by 1 ton/2000 pounds gives a round figure of 1.8 tons OC per year.

- b. Emission Limitation

NO_x: 15.0 lbs NO_x/hour

Applicable Compliance Method

The permittee shall demonstrate compliance with the above value of pound NO_x/hour by emission testing in accordance

Method 7, 40 CFR Part 60, Appendix A.

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Calculation of the pound NO_x per hour limit:

Multiplying a test-derived factor of 0.32 lb NO_x per gallon of gasoline consumed by the maximum of 46 gallons gasoline consumption per hour for all cells yields 14.72 lbs NO_x per hour which is rounded off to 15.0 lbs NO_x per hour.

Emission Limitation

NO_x: 360.0 lbs NO_x/day

Calculation of the pound NO_x per day limit:

Multiplying the above 15.0 lbs NO_x per hour by 24 hours per day gives 360.0 lbs NO_x per day.

Emission Limitation

NO_x: 30.7 tons NO_x/year

Multiplying the test-derived 0.32 lb NO_x per gallon of gasoline consumed by the self-restricted maximum gasoline consumption of 192,000 gallons of gasoline per year and multiplying the product by 1 ton/2000 pounds gives 30.7 tons NO_x per year.

c. Emission Limitation

CO: 8.1 lbs CO/hour

Applicable Compliance Method

The permittee shall demonstrate compliance with the above value of pound CO/hour by emission testing in accordance

Method 10, 40 CFR Part 60, Appendix A.

Emission Limitation

CO: 194.4 lbs CO/day

Calculation of the pound CO per day limit:

Multiplying the above 8.1 lbs CO per hour by 24 hours

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per day gives 194.4 lbs CO per day.

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Emission Limitation

CO: 35.5 tons CO/year

Multiply 8.1 lbs CO per hour by 8760 hours per year and multiplying the product by 1 ton/2000 pounds gives 35.5 tons CO per year.