



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 MODIFICATION** **CERTIFIED MAIL**
CUYAHOGA COUNTY
Application No: 13-02790
Fac ID: 1318120180

DATE: 2/15/2005

Ford Motor Company - Cleveland Casting
Ms. Patricia Murphy
5600 Henry Ford Boulevard
Brook Park, OH 44142

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

CLAA



**Permit To Install
Terms and Conditions**

**Issue Date: 2/15/2005
Effective Date: 2/15/2005**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 13-02790

Application Number: **13-02790**
APS Premise Number: **1318120180**
Permit Fee: **\$3125**
Name of Facility: **Ford Motor Company - Cleveland Casting**
Person to Contact: **Ms. Patricia Murphy**
Address: **5600 Henry Ford Boulevard
Brook Park, OH 44142**

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5600 Henry Ford Boulevard
Brook Park, OHIO**

Description of modification:

Administrative modification primarily to change opacity limits for shared (inlet plenums, control equipment and) exhausts and to reflect present ducting arrangements.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Ford Motor Company - Cleveland Casting

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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 AND OPERATION AFTER COMPLETION OF CONSTRUCTION

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).

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.

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 Company - Cleveland Casting** 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.

Storage Hoppers

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Use of Wet Scrubbers and Compliance with Limitations of This Permit.</u>
P297	Mold Conveyor #7 Mold Line	PM - 3.2 lbs/hr PM ₁₀ - 2.7 lbs/hr Use of Wet scrubber #46	
P298	Block Casting Shakeout		Use of Wet Scrubbers and Compliance with Limitations of This Permit.
P299	Sand Mullor #7 Mold Line		Use of Scrubber (s) and Compliance with the Limitations of This Permit
P300	Castings Cooler #7 Mold Line		Use of scrubber (s) and Compliance with the Limitations of This Permit.
P301	Conveyor Equipment and		Use of scrubber (s) and Compliance with the Limitations of This Permit.

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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>
	12			
	3745-31-05	Permit Allowable Mass Emissions and/or Control/Usage <u>Requirements</u>		
	3745-15-07			
Applicable	3745-17-07			
Federal	3745-17-12			
&	3745-31-05	PM - 3.2 lbs/hr		
<u>OAC</u>	3745-15-07	PM ₁₀ - 2.7 lbs/hr		
<u>Rules</u>	3745-17-07	20% opacity		
	3745-17-12			
3745-31-05		PM - 1.7 lbs/hr,		
3745-15-07		0.01 gr/acf		
3745-17-07		PM ₁₀ - 1.4 lbs/hr		
3745-17-07		20% opacity		
3745-17-12		PM - 0.69 lb/hr,		
		0.01 gr/acf		
		PM ₁₀ - 0.56 lb/hr		
		20% opacity		
3745-31-05		PM - 5.1 lb/hr,		
3745-15-07		0.01 gr/acf		
3745-17-07		PM ₁₀ - 4.2 lb/hr		
3745-17-12		20% opacity		
		PM - 6.9 lb/hr,		
		0.01 gr/acf		
		PM ₁₀ - 5.6 lb/hr		
		20% opacity		
3745-31-05				
3745-15-07				
3745-17-07				
3745-17-12				

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SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>		
PM	33.73		
PM ₁₀	27.83		
		PM (tons per year)	PM₁₀ (tons per year)
New Source Emissions @ 3840 hrs/yr		31.91	26.25
Contemporaneous Five Year Increases		1.1	.38
Contemporaneous Five year Decreases		-37.07	-28.07
Net Emissions		-4.9	-1.44

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.
- 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

P290-P300

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Pollutant(s)

PM

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, Cleveland, Ohio 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.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

1. This permit to install is for the following modifications to mold line number 7 in order to also produce engine block castings for the new 2.3 liter engine and other small engines which will allow the use of mold line number 2 for production of the engine block castings for the new NGT engine.

The existing particulate emission limitations in OAC rule 3745-17-12 for the following sources are not being increase as a result of this modification to mold line number 7:

Source #	Source Description	Modification
P290	Electric induction holding furnace	potential increase in production rate, but no net emission increase

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P291	iron pouring	potential increase in production rate, but no net emission increase
P292	mold conveyor	process change, source number changed to P297
P293	primary and secondary shakeouts	none
P294	automatic castings extractor	none
P295	return sand system	none (see P301 below)
P296	fluid bed sand cooler	potential increase in production rate, but no net emission increase

The existing particulate emissions limitations for the following sources are being increased as a result of this modification to mold line number 7 or new sources are being installed to mold line number 7:

Source #	Source Description	Modification/Addition
P297	mold conveyor	existing mold conveyor (formerly P292) with process change and addition of two new exhaust stacks (D-58, D-59) and wet scrubber # 46
P298	block casting shakeout	new shakeout installed
P299	sand mullor	new sand mullor installed
P300	casting cooling	existing bucket conveyor modified
P301	conveyor equipment and storage hoppers	new conveyor equipment and storage hoppers installed.

2. Particulate emissions from Source P297 shall be vented into existing stacks D-26 and D-34 and new stacks D-58 and D-59. The total combined particulate emissions from stacks D-26, D-34, D-58 and D-59 shall be vented into wet mold line dust collector 9-1 (Scrubber/collector # 46) and shall not exceed 3.2 pounds per hour.
3. Particulate emissions from Source P298 shall be vented into wet collectors 8-1, 8-2, 8-3 and 9-1. The particulate emissions from each of these wet collectors shall not exceed 0.01 grain per actual cubic foot of exhaust gases.
4. Particulate emissions from Sources P299 and P301 shall be vented into wet collectors 6-1, 6-2, 6-3, 8-1, 8-2, 8-3 and 9-1. The particulate emissions from each of these wet collectors shall not exceed 0.01 grain per actual cubic foot of exhaust gases.
5. Particulate emissions from Source P300 shall be vented into wet collectors 8-1, 8-2, 8-3 and 9-1. The particulate emissions from each of these wet collectors shall not exceed 0.01 grain per actual cubic foot of

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exhaust gases. There shall be no particulate attributable to Source P300 from stacks E-58, E-59, E-60 and E-61.

6. Visible emissions from stacks D-26, D-34, D-58 and D-59 and From the stacks of wet collectors 6-1, 6-2, 6-3, 8-1, 8-2, 8-3 and 9-1 shall not exceed 20 percent opacity as a six-minute average.,
7. Exhaust flow rates from the following control equipment shall not exceed the rates (in actual cubic feet per minute) specified in the following:

<u>Control Equipment</u>	<u>Maximum Flow Rate (acfm)</u>
wet collectors 6-1, 6-2, 6-3	43,750
wet collectors 8-1, 8-2, 8-3, 9-1	42,000

8. The total operating hours during any calendar day for mold lines numbers 1 through 3, 7 and 10 shall not exceed the limitation specified in OAC rule 3745-17-12. This facility shall maintain daily records of the total operating hours and shall keep such records available for review, in accordance with OAC rule 3745-17-12.
9. The total operating hours in any year for mold line no. 7 shall not exceed 3840 hours based on a 365-day rolling average. This facility shall maintain daily records of the operating hours and 365-day rolling averages for mold line no. 7.
10. The following sources have been either shut down and or have reduced the number of hours the source operates, such that the emissions these sources are being used as emission credit toward the increased emissions associated with the issuance of this permit.

<u>Sources</u>	<u>PM tons/yr</u>	<u>PM₁₀ tons/yr</u>	<u>VOC tons/yr</u>
P148	2.1	1.8	N/A
P186	2.1	1.8	N/A
P160 , 1, 2 (P140)	1.7	1.6	N/A
P387	22.1	19.6	N/A
P055	1.0	0.6	N/A
P028 (13-2841)	8.5	2.67	N/A
P094 (13-2818)	N/A	N/A	50.11
Total	37.07	28.07	50.11

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11. This facility shall submit a report to the Cleveland Bureau of Air Pollution Control any exceedance of the terms and conditions of noz. 8 and 9 within forty five days. This report shall summarize the reason for the exceedance and the corrected action taken.
12. This facility shall employ procedures for unloading and disposal of the dust collected in the baghouse so that it does not get airborne and does not accumulate underneath the baghouses. Any accumulation of dust under the baghouse (s) or on any part of the roof or floor shall be deemed a violation of this condition.
13. This permit in no way limits that applicability of any other State or Federal regulation.

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Synthetic Minor/Netting Determination

Ford Motor Company
Cleveland Casting Plant

PTI nos. 13-2818, 13-2790

A. Source Description:

The Ford Cleveland Casting Plant proposes to make modification to its existing facility, specifically to mold line no. 7 and cleaning line no. 2 and to reduce operating hours on other lines, to produce cores for the casting of the modular New Generation Truck (NGT) cylinder blocks.

The following sources are associated with mold line no. 7:

P290, P291, P292, P293, P294, P295, P296, P297, P298, P299, P300 and P301. See PTI no. 13-2790. Source P292 has been renamed P297.

The following sources associated with mold line no. 2 are modified and/or added:

P414 and P028.

See PTI no. 13-2818 and 13-2841, respectively.

B. Facility Emissions/Attainment Status:

The Ford Cleveland Casting Plant is a major stationary source for PM, PM₁₀ and VOC.

C. Source Emissions based on 8760 hours per year:

The following sources are the only sources which have increased their net tons per year amount over their present PTI allowables (based on a grain loading associated with a particular stack) due to modifying the existing sources and/or adding new sources to mold lines nos.7 and 2 to produce the NGT engine blocks.

	PM tons/yr	PM ₁₀ tons/yr	VOC tons/yr
1. P297	6.83	5.83	

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2.	P298	7.45	6.13	
3.	P299	3.02	2.45	
4.	P300	22.34	18.40	
5.	P301	30.22	24.53	
6.	P414	2.93	2.54	101.48
	Total	72.79	2.54	101.48

D. Contemporaneous increase/decreases over the last five years and including reduction in hours of operation:

Existing and/or new Source Emissions based on 3840 hours per year (the agreed to restriction):

		PM tons/yr	PM ₁₀ tons/yr	VOC tons/yr
1.	P297	3.00	2.55	N/A
2.	P298	3.26	2.69	N/A
3.	P299	1.32	1.08	N/A
4.	P300	9.79	8.06	N/A
5.	P301	13.25	10.75	N/A
6	P414	1.29	1.11	49.6
	Total	31.91	26.24	49.6

Source Emissions based on the installation of sources during the last five years:

		PM tons/yr	PM ₁₀ tons/yr	VOC tons/yr
1.	P411 (13-1967)	0.90	.28	N/A

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2.	P412 (13-2701)	0.20	0.10	16.0
3.	P106 (13-2663)	N/A	N/A	5.0
4.	P106 (13-1998)	N/A	N/A	.4
5.	P028 (13-2200)**	N/A	N/A	N/A
6	P192-P194 (13-2658) **	N/A	N/A	N/A
	Total	1.1	.38	21.4

** no net increase in emissions, but permits were issued to document physical changes to lines.

Source Emissions based on shutting down and/or reducing hours of operation of existing sources during the last five years:

		PM tons/yr	PM ₁₀ tons/yr	VOC tons/yr
1.	P148	2.1	1.8	N/A
2.	P186	2.1	1.8	N/A
3.	P160, 1, 2 (P140)	1.7	1.6	N/A
4.	P387	22.1	19.6	N/A
5.	P055	1.0	0.6	N/A
6	P028	8.5	2.67	N/A
7.	P094	N/A	N/A	50.11
	Total	37.07	28.07	50.11

E. Conclusion:

Net Source Emissions:

	PM (tons per year)	PM ₁₀ (tons per year)	VOC (tons per year)
New Source Emissions (with restrictions)	31.91	26.25	49.6
Contemporaneous Five year Increase	1.1	.38	21.4
Contemporaneous Five year Decreases	(-37.07)	(-28.07)	(-50.11)

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Net Emissions	-4.9	-1.44	20.89
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The contemporaneous net increase was less than the threshold limits for nonattainment review. This was achieved through restricting the hours of operation of various sources and the shutdown of other sources. The permit contains record keeping and reporting requirements to monitor the hours of operation. Because the threshold limits were not exceeded, this source netted out of nonattainment review.