



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

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

**RE: FINAL PERMIT TO INSTALL
DEFIANCE COUNTY
Application No: 03-13375**

CERTIFIED MAIL

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

DATE: 10/31/2000

GM Powertrain Group, Defiance Plant
William R. Schlatter
26437 State Route 281 East 26437 State Route 281 East
Defiance, OH 43512-0070

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 Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Very truly yours,

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

cc: USEPA

NWDO



**Permit To Install
Terms and Conditions**

**Issue Date: October 31, 2000
Effective Date: October 31, 2000**

FINAL PERMIT TO INSTALL 03-13375

Application Number: 03-13375

APS Premise Number: 0320010001

Permit Fee: **\$600**

Name of Facility: GM Powertrain Group, Defiance Plant

Person to Contact: William R. Schlatter

Address: 26437 State Route 281 East 26437 State Route 281 East
Defiance, OH 43512-0070

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

**26427 St Rte 281 E
Defiance, Ohio**

Description of proposed emissions unit(s):

Cold Box Core Machine Number 119.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.11 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

8. Federal and State Enforceability

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

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is

granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

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

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Air Pollution Nuisance

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

5. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may

be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

6. Construction of New Sources(s)

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

7. Public Disclosure

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

8. Applicability

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

9. 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.

10. 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.

11. 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>
PM ₁₀	2.18
OC	10.28

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

1. Netting Determination - Contemporaneous Emissions Increases and Decreases
Listed below are the contemporaneous emission increases and decreases at GM Powertrain Group, Defiance Plant for PM₁₀ and VOCs.

PM₁₀ EMISSIONS INCREASE (TPY)

<u>CONST. DATE</u>	<u>STARTUP DATE</u>	<u>PTI#</u>	<u>SOURCE</u>	<u>INCREASE</u>
5/3/95	8/1/95	03-8591	P383 Hot Box Core Mach. #96- Plt. 1	4.14
5/3/95	8/1/95	03-8591	P384 Hot Box Core Mach. #97- Plt. 1	4.14
5/3/95	8/1/95	03-8591	P385 Hot Box Core Mach. #98- Plt. 1	5.80
5/3/95	8/1/95	03-8591	P386 Hot Box Core Mach. #99- Plt. 1	5.80
5/17/95	10/30/95	03-8574	P380 No. 12 Cleaning Cabinet	20.72
5/17/95	10/30/95	03-8574	P381 Head Grinder- Gen.III-Plt.1	3.20
5/17/95	10/30/95	03-8574	P382 Gen. III Head Facilities-Misc. Equipment Plt. 1	19.45
4/24/96	9/1/96	03-9568	P393 2.35 TPH Shot Reclaim Syst.	1.10
5/3/95	10/22/96	03-8624	P387 Cold Box Core Mach. #93, 94, 95	0.63
3/27/96	4/1/97	03-9233	P388 H. B. Core Mach. #100-101	3.61
3/27/96	4/1/97	03-9233	P389 H. B. Core Mach. #102-103	5.43
3/27/96	4/1/97	03-9233	P391 H. B. Sand Syst. #100-101	2.26
3/27/96	4/1/97	03-9233	P392 H. B. Sand Syst. #102-103	2.26
5/3/95	4/21/97	03-8580	P379 Cold Box Core Mach. #89- Plt. 1	0.92
3/27/96	4/21/97	03-9233	P390 Dip Dry Coating Operation	0.67
4/23/97	10/1/97	03-10003	P394 C. B. Core Mach. #104, 105, 106	1.40
4/23/97	10/1/97	03-10003	P396 Core Wash Dry Oven #4&5	0.83
8/1/97	12/1/97	03-10531	P401 C. B. Core Mach. #90- Plt. 1	1.13
9/1/97	12/1/97	03-10531	P402 Core Paste Oven @ CB #89 & 90	1.88
4/23/97	2/1/98	03-10003	P395 C. B. Core Mach. #107, 108, 109	1.40
1/11/98	7/11/98	03-10138	P397 C. B. Core Mach. #110, 111, 112	1.38
1/11/98	7/11/98	03-10138	P398 C. B. Core Mach. #113, 114, 115	1.38
5/27/98	7/11/98	03-10138	P399 Core Wash Dry Oven #6&7	0.83
5/27/98	7/11/98	03-10191	P400 Blast Cabinet- sample cast; Plt. 2E	1.10
8/1/97	4/20/98	03-10531	P401 Core Machine C.B. #90	1.13
9/1/97	8/31/98	03-10531	P402 Oven Paste Dry for C.B. #89-90	0.43
4/1/99	1/01/00	03-13115	P403 Cold Box Core Machine #116	2.18
4/1/99	01/01/00	03-13115	P404 Cold Box Core Machine #117	2.18
4/1/99	01/01/00	03-13115	P405 Cold Box Core Machine #118	2.18
4/1/99	01/01/00	03-13115	P406 Core Dipping and Oven	3.27
4/1/00	01/01/01	03-13364	B003 Natural gas boiler	1.93
4/1/00	01/01/01	03-13364	B004 Natural gas boiler	1.93
4/1/00	01/01/01	03-13364	B005 Natural gas boiler	1.93
4/1/00	01/01/01	03-13364	P411 Castline#1	5.26
4/1/00	01/01/01	03-13364	P412 Castline #2	5.26
4/1/00	01/01/01	03-13364	P413 Castline#3	5.26
4/1/00	01/01/01	03-13364	P441 Castline#4	5.26
4/1/00	01/01/01	03-13364	P415-P418 Sand silos (1-4)	0.01

4/1/00	01/01/01	03-13364	P419 Sand Reclaim Furnace #1	4.73
4/1/00	01/01/01	03-13364	P420 Sand Reclaim Furnace #2	4.73
4/1/00	01/01/01	03-13364	P421 Sand Reclaim Furnace #3	4.73
4/1/00	01/01/01	03-13364	P422 Sand Reclaim Furnace #4	4.73
4/1/00	01/01/01	03-13364	P423 Receiving Furnace #1	4.46
4/1/00	01/01/01	03-13364	P424 Receiving Furnace #2	4.46
4/1/00	01/01/01	03-13364	P425 Receiving Furnace #3	4.46
4/1/00	01/01/01	03-13364	P426 Holding Furnace #1	4.46
4/1/00	01/01/01	03-13364	P427 Holding Furnace #2	4.46
4/1/00	01/01/01	03-13364	P428 Holding Furnace #3	4.46
4/1/00	01/01/01	03-13364	P429 Stack Melter	8.55
4/1/00	01/01/01	03-13364	Preheater	0.07
4/1/00	01/01/01	03-13364	HVAC unit	0.04
4/1/00	01/01/01	03-13364	Cabinet Bead Blast units	0.063
4/1/00	01/01/01	03-13364	6 cooling towers	6.12
11/1/00		03-13375	P430 Cold Box Core Machine #119	<u>2.18</u>
				192.37 TPY

PM₁₀ EMISSIONS DECREASE (TPY)**SHUTDOWN
DATE****SOURCE****DECREASE**

10/1/95	P119 Oven- Core- Vert #18	5.91
10/1/95	P285 Oven-Dip Dry- @ Vert. #18	0.28
10/1/95	P286 Definner- @ Vert. #18	3.28
2/5/96	P174 Line #5 Shakeout	5.53
5/17/96	P051 Iron Pouring-L #11	1.46
5/17/96	P060 Iron Pouring-L #20	1.46
5/17/96	P061 Mold Cooling #11-20	9.62
5/17/96	P062 Casting Separation- L#11	6.01
5/17/96	P071 Casting Separation- L#20	6.01
5/17/96	P072 Shakeout- L#11 & 12	2.62
5/17/96	P076 Shakeout- L#19 & 20	2.62
7/1/96	P133 Core Machine- HB #4	6.48
12/1/96	P108 Vertical Oven #6	7.23
1/8/97	P267 Core Machine- CB #31	0.37
4/23/97	P206 Core Coating w/ oven; Cam area	0.83
5/1/97	P133 Core Machine- HB #8	5.87
5/1/97	P251 Core Machine- HB #12	5.96
7/1/97	P102 Ovens Horiz- #1	12.04
7/1/97	P133 Core Machine- HB #10	7.43
7/15/97	P133 Core Machine- HB #7	7.71
7/31/97	P041-P046 Ajax Furnaces	61.56
9/1/97	P139 Line #3 Casting Cooling	1.43
9/1/97	P142 Line #3 Mold Cooling	2.74
9/1/97	P173 Line #5 Mold Cooling	3.10
9/1/97	P188 Cupola #4 Iron trough	2.17
1/1/98	P249 Core Machine- HB #25	11.93
1-2-98	P105 Vertical Oven #3	3.63
1-2-98	P111 Core Oven Vert. #10	2.30
1-2-98	P112 Core Oven Vert. #11	3.74
2/1/98	P133 Core Machine- HB #3	6.48
2/1/98	P133 Core Machine- HB #6	6.48
5/1/98	P133 Core Machine- HB #9	8.06

6/1/98	P185 Core Machine- HB #1	20.38
9/9/98	P267 Core Machines #30, 32	2.9
4/15/00	P258 Core Machines HB #34-35	4.07
4/15/00	P258 Core Machines HB #36-37	4.07
2/15/00	P292 Core Machines HB #38-39	4.07
2/15/00	P270 Core Machines HB #41-42	4.07
4/15/00	P211 and P297 Ovens HB #34-35	<u>1.20</u>
		253.1 TPY

VOC EMISSIONS INCREASE (TPY)

<u>CONST DATE</u>	<u>.STARTUP DATE</u>	<u>PTI#</u>	<u>SOURCE</u>	<u>INCREASE</u>
5/3/95	8/1/95	03-8591	P383 Hot Box Core Mach. #96- Plt. 1	4.84
5/3/95	8/1/95	03-8591	P384 Hot Box Core Mach. #97- Plt. 1	4.84
5/3/95	8/1/95	03-8591	P385 Hot Box Core Mach. #98- Plt. 1	6.77
5/3/95	8/1/95	03-8591	P386 Hot Box Core Mach. #99- Plt. 1	6.77
5/3/95	10/22/96	03-8624	P387 Cold Box Core Mach. #93, 94, 95	3.42
3/27/96	4/1/97	03-9233	P388 H. B. Core Mach. #100-101	4.21
3/27/96	4/1/97	03-9233	P389 H. B. Core Mach. #102-103	6.33
5/3/95	4/21/97	03-8580	P379 Cold Box Core Mach. #89- Plt. 1	4.16
3/27/96	4/21/97	03-9233	P390 Dip Dry Coating Operation	9.04
4/23/97	10/1/97	03-10003	P394 C. B. Core Mach. #104, 105, 106	6.36
4/23/97	10/1/97	03-10003	P396 Core Wash Dry Oven #4&5	4.96
8/1/97	12/1/97	03-10531	P401 C. B. Core Mach. #90; Plt. 1	5.09
4/23/97	2/1/98	03-10003	P395 C. B. Core Mach. #107, 108, 109	6.36
1/11/98	7/11/98	03-10138	P397 C. B. Core Mach. #110, 111, 112	6.26
1/11/98	7/11/98	03-10138	P398 C. B. Core Mach. #113, 114, 115	6.26
5/27/98	7/11/98	03-10138	P399 Core Wash Dry Oven #6&7	4.96
8/1/97	4/20/97	03-10531	P401 Core Machine C.B. #90	5.09
4/1/99	1/1/00	03-13115	P403 Cold Box Core Machine #116	10.28
4/1/99	1/1/00	03-13115	P404 Cold Box Core Machine #117	10.28
4/1/99	1/1/00	03-13115	P405 Cold Box Core Machine #118	10.28
4/1/99	1/1/00	03-13115	P406 Core Dipping/Oven	13.79
3/1/00	01/01/01	03-13364	P407 Polystyrene bead preparations	0.44
4/1/00	01/01/01	03-13364	B003 Natural gas boiler	0.53
4/1/00	01/01/01	03-13364	B004 Natural gas boiler	0.53
4/1/00	01/01/01	03-13364	B005 Natural gas boiler	0.53
4/1/00	01/01/01	03-13364	P407-P410 Bead Prep (1-4)	36.79
4/1/00	01/01/01	03-13364	P411 Castline#1	1.80
4/1/00	01/01/01	03-13364	P412 Castline #2	1.80
4/1/00	01/01/01	03-13364	P413 Castline#3	1.80
4/1/00	01/01/01	03-13364	P441 Castline#4	1.80
4/1/00	01/01/01	03-13364	P419 Sand Reclaim Furnace #1	0.57
4/1/00	01/01/01	03-13364	P420 Sand Reclaim Furnace #2	0.57
4/1/00	01/01/01	03-13364	P421 Sand Reclaim Furnace #3	0.57
4/1/00	01/01/01	03-13364	P422 Sand Reclaim Furnace #4	0.57
4/1/00	01/01/01	03-13364	P423 Receiving Furnace #1	1.39
4/1/00	01/01/01	03-13364	P424 Receiving Furnace #2	1.39
4/1/00	01/01/01	03-13364	P425 Receiving Furnace #3	1.39
4/1/00	01/01/01	03-13364	P426 Holding Furnace #1	1.39
4/1/00	01/01/01	03-13364	P427 Holding Furnace #2	1.39

GM Powertrain Group, Defiance Plant

PTI Application: 03-13375

Issued: October 31, 2000

Facility ID: 0320010001

4/1/00	01/01/01	03-13364	P428 Holding Furnace #3	1.39
4/1/00	01/01/01	03-13364	P429 Stack Melter	0.43
4/1/00	01/01/01	03-13364	Preheater	0.05
4/1/00	01/01/01	03-13364	HVAC unit	0.03
4/1/00	01/01/01	03-13364	pattern-curing 4 units	4.46
4/1/00	01/01/01	03-13364	pattern-making 4 units	4.46
4/1/00	01/01/01	03-13364	pattern coating/drying stations (4)	0.08
11/1/00		03-13375	P430 Cold Box Core Machine #119	10.28
				220.64 TPY

VOC EMISSIONS DECREASE (TPY)

SHUTDOWN DATE	SOURCE	DECREASE
10/1/95	P119 Oven- Core- Vert #18	6.06
10/1/95	P285 Oven-Dip Dry- @ Vert. #18	14.47
7/1/96	P133 Core Machine- HB #4	7.56
12/1/96	P108 Vertical Oven #6	8.55
1/8/97	P267 Core Machine- CB #31	1.68
1/8/97	P267 Core Machine- CB #31	1.68
4/23/97	P206 Core Coating w/ oven; Cam area	11.59
5/1/97	P133 Core Machine- HB #8	6.85
5/1/97	P251 Core Machine- HB #12	6.95
7/1/97	P102 Ovens Horiz- #1	10.08
7/1/97	P133 Core Machine- HB #10	8.66
7/15/97	P133 Core Machine- HB #7	9.00
1/1/98	P249 Core Machine- HB #25	13.92
1-2-98	P105 Vertical Oven #3	4.29
1-2-98	P111 Core Oven Vert. #10	11.51
1-2-98	P112 Core Oven Vert. #11	4.42
2/1/98	P133 Core Machine- HB #3	7.56
2/1/98	P133 Core Machine- HB #6	7.56
5/1/98	P133 Core Machine- HB #9	9.40
6/1/98	P185 Core Machine- HB #1	23.78
9/9/98	P267 Core Machines #30, 32	5.64
4/15/00	P258 Core Machines HB #34-35	11.86
4/15/00	P258 Core Machines HB #36-37	11.86
2/15/00	P292 Core Machines HB #38-39	11.86
2/15/00	P270 Core Machines HB #41-42	11.86
4/15/00	P211 and P297 Ovens HB #34-35	<u>1.42</u>
		230.07 TPY

The new change in emissions, due to the installation of the planned new source in this PTI, over the contemporaneous time period, will be a net decrease of 60.73 TPY of PM₁₀ and a net decrease of 9.43 TPY of VOC.

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>
Cold Box Core Machine #119	OAC Rule 3745-31-05(A)(3)	1.13 lbs PM ₁₀ /hr 5.35 lbs Organic Compounds (OC)/hr Control requirements (See A.I.2.a) See A.I.2.b.
	OAC rule 3745-31-05(D)	2.18 tons PM ₁₀ /year as a rolling, 12-month summation. (See A.I.2.c) 10.28 tons OC/year as a rolling, 12-month summation. (See A.I.2.c & A.I.2.e)
	OAC Rule 3745-17-07 (A)(1)	20% Opacity, as a 6-minute average, except as provided by rule.
	OAC Rule 3745-17-11 (B)(1)	See A.I.2.d.
	OAC Rule 3745-21-07 (G)	Exempt (see A.II.1.)

2. Additional Terms and Conditions

- 2.a** The permittee shall employ "Best Available Technology" (BAT) on this emissions unit. BAT has been determined to be the use of a scrubber/chemical absorber for control of PM₁₀ and OC emissions. PM₁₀ emissions shall be controlled to an emission rate of 1.13 lbs per hour and OC emissions shall be controlled to an emission rate of 5.35 lbs per hour.
- 2.b** The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-07(A).
- 2.c** The permittee has requested federally enforceable emission limitations of 2.18 tons PM₁₀ per year and 10.28 tons OC per year based on control requirements and restrictions on hours of operation. (See A.I.2.a & A.II.2). The permittee has requested federally enforceable emission restrictions to decrease the amount of creditable contemporaneous source credits consumed by this installation (See Netting Determination in Part II, section A.1 of this permit)
- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-05(A)(3).
- 2.e** For the purposes of federal enforceability, all OC restrictions effectively restrict VOC emissions will.

II. Operational Restrictions

- 1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.
- 2. The maximum annual hours of operation for this emissions unit shall not exceed 3840 hours, based upon a rolling, 12-month summation.

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

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	500
1-2	1000
1-3	1500
1-4	2000
1-5	2500
1-6	3000
1-7	3200
1-8	3400
1-9	3600

1-10	3800
1-11	3840
1-12	3840

After the first 12 calendar months of operation 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.

3. The pH and water flow rate of the scrubber that controls emissions unit P430 shall be maintained at the following levels:
 - a. The scrubber liquor pH shall be continuously maintained at or below 7 while the emissions unit is in operation.
 - b. The scrubber liquor flow rate shall be continuously maintained at a value of not less than 20 gallons per minute at all times while the emissions units are in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The monthly operating hours for each emissions unit.
 - b. Beginning the first month after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative operating hours for each calendar month.

2. The permittee shall properly install, operate and maintain equipment to continuously monitor the scrubber liquor pH and flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record the following information each day:

- a. The pH of the scrubber liquor, on a once/shift basis.
- b. The scrubber liquor flow rate, in gallons per minute, on an once/shift basis.
- c. The operating times for the capture (collection) systems, control devices, monitoring equipment, and the associated emissions units.
- d. All periods of time the scrubber was not operating in accordance with the requirements in condition A.II.3. above and the corrective action taken to bring the scrubber back into compliance with these operating restrictions.

On a weekly basis this information shall be collected, reviewed and summarized.

3. In order to demonstrate compliance with A.II.4, the permittee shall maintain records of the following information for this emissions unit:
 - a. The company identification for each liquid organic material employed in this emissions unit; and
 - b. Documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. 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 levels.
 - b. All periods of time during which the scrubber for these emissions units was not maintained in accordance with the following:
 - i. The pH of the scrubber liquor exceeded 7.
 - ii. The scrubber liquor flow rate was less than 20.
 - c. Each day during which a photochemically reactive material was employed
2. These reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:
 - a. The emissions testing shall be conducted within 6 months after start-up of the emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PM₁₀ and OC.
 - c. The pH and flow rate of the scrubber liquor shall be recorded during each emissions test run.

- d. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for PM₁₀, Method 201 or 201A or Method 5 (including the back half the sampling train and a particle size distribution) of 40 CFR Part 60, Appendix A, and for OC, Method 25A of 40 CFR Part 60, Appendix A. Alternative U.S.EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.
- e. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee shall include in the report the operating parameters as required in (F)(1)(c) above.

2. Compliance Methods Requirements:

Compliance with the allowable emission limitations in section A.I of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

10.28 TPY based on a rolling 12-month summation

Applicable Compliance Method:

Compliance with the TPY limit will be assumed if the emissions unit is in compliance with its lb/hr limit and operating hours restriction, since the TPY emissions limit is based upon the maximum hourly emissions rate, times the number hours the emissions unit operates divided by 2000 lbs per ton.

b. Emission Limitation:

2.18 TPY based on a rolling 12-month summation

Applicable Compliance Method:

Compliance with the TPY limit will be assumed if the emissions unit is in compliance with its lb/hr limit and operating hours restriction, since the TPY emissions limit is based upon the maximum hourly emissions rate, times the number hours the emissions unit operates divided by 2000 lbs per ton.

c. Emission Limitation:

20% opacity, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

d. Emission Limitation:

5.35 lbs OC/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emissions limitation based on the results of the stack test required in section B.V.1.

e. Emission Limitation:

1.135 lb PM₁₀/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emissions limitation based on the results of the stack test required in section B.V.1. All emissions of PM are assumed to be PM₁₀.

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>
Cold Box Core Machine #116		

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this permit action as evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: triethylamine
 TLV (ug/m3): 4138.6
 Maximum Hourly Emission Rate (lbs/hr): 2.76*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 21.35
 MAGLC (ug/m3): 98.5

* Triethylamine is the air toxic with the lowest TLV. The emission rate is calculated based upon the triethylamine representing 12.5% of the total weight of OC emitted from emissions unit P430

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy"

is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 03-13375

Facility ID: 0320010001

FACILITY NAME GM Powertrain Group, Defiance PlantFACILITY DESCRIPTION Cold Box Core Machine Number 119 CITY/TWP DefianceSIC CODE 3321 SCC CODE _____ EMISSIONS UNIT ID P430EMISSIONS UNIT DESCRIPTION Cold Box Core Machine 119DATE INSTALLED Not Installed

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	1.13	2.18	1.13	2.18
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment	5.35	10.28	5.35	10.28
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

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

Use of scrubber and compliance with the terms and conditions in this permit

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? YesOPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$65,000**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*? X YES _____ NO _____IDENTIFY THE AIR CONTAMINANTS: triethylamine

NEW SOURCE REVIEW FORM B

PTI Number: 03-13375

Facility ID: 0320010001

FACILITY NAME GM Powertrain Group, Defiance Plant

FACILITY DESCRIPTION Cold Box Core Machine Number 119 CITY/TWP Defiance

Please describe any hard copy information is being submitted with this recommendation (Please send hard copy information to Pam McGraner, DAPC Central Office - Air Quality Modeling and Planning):

Permit Review Forms, Air Toxics Modeling, Netting Calculations from PTI Application

Please provide any additional permit specific notes as you deem necessary:

NONE

Permit To Install Synthetic Minor Write-Up

A. Source Description

GMC Powertrain in Defiance County is a manufacturer of automobile parts. The facility is a Major PSD facility and has applied to install a new cold box core machine.

B. Facility Emissions and Attainment Status

The facility is a Major PSD facility for NO_x, PM₁₀, & VOC's. Defiance County is classified as attainment for all pollutants. The company is requesting federally enforceable limits on PM₁₀ and VOCs to decrease the amount of creditable contemporaneous source credits consumed by this installation.

C. Potential Emissions/Contemporaneous Emissions Increases and Decreases

The potential emissions from the proposed cold box core machine installation where combined with the emissions from PTI #03-13364 issued July 10, 2000 for a "lost foam" project for purposes of analyzing PSD applicability. The "lost foam" project and the proposed cold box core machine are combined for PSD purposes due to the fact that both projects were conceptualized during the same one year planning period. PM₁₀ and VOC emissions from these two projects are greater than the PSD significance level thresholds. The company has contemporaneous netting credits and is also requesting federally enforceable limits to lower the net emissions increase from this installation to avoid PSD regulations for PM₁₀ and VOC.

GMC Powertrain has proposed to limit the hours of operation of the cold box core machine to 3840 hrs/yr which will reduce potential emissions in order to allow for future expansion. With these federally enforceable operating restrictions the potential to emit will be:

EU	PM ₁₀ LBS/HR	PM ₁₀ TPY @ 3840 hrs/yr	VOC LBS/HR	VOC TPY @ 3840 hrs/yr
P430	1.13	2.18	5.35	10.28

D. Conclusion:

The proposed emissions increase associated with the cold box core machine and contemporaneous increases and decreases at the facility will result in net decreases of PM₁₀ and VOC thus avoiding PSD requirements. See Netting Determination in Part II, section A.1 of PTI #03-13375.

Please fill in the following for this permit:

NEW SOURCE REVIEW FORM B

PTI Number: 03-13375

Facility ID: 0320010001

FACILITY NAME GM Powertrain Group, Defiance Plant

FACILITY DESCRIPTION Cold Box Core Machine Number 119

CITY/TWP Defiance

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
PM ₁₀	2.18
OC	10.28