



1986	03-2285	Z183 Cold Box #56	0.72	0.36	0.0	0.0	0.0
1986	03-2285	Z184 Cold Box #57	0.72	0.36	0.0	0.0	0.0
1986	03-2285	Z185 Cold Box #58	0.72	0.36	0.0	0.0	0.0
1986	03-2285	Z186 Cold Box #59	0.72	0.36	0.0	0.0	0.0
1986	03-2285	Z187 Cold Box #61	1.01	0.51	0.0	0.0	0.0
1986	03-2285	Z188 Cold Box #62	1.01	0.51	0.0	0.0	0.0
1986	03-2285	Z189 Cold Box #63	1.01	0.51	0.0	0.0	0.0
1986	03-2285	Z190 Cold Box #64	1.01	0.51	0.0	0.0	0.0
1986	03-2285	Z193 Hot Box dip dry oven (X5-1)	0.46	0.23	0.0027	0.45	
1986	03-2285	Z194 Hot box paste dry oven (X5-2)	1.63	0.82	0.0096	1.60	1.34
1986	03-2285	Z195 Oven dip@CB#92	0.82	0.41	0.0048	0.80	0.67
1986	03-2285	Z196 Oven dip@CB#91	1.24	0.62	0.0073	1.22	1.02
1986	03-2285	Z197 cold box 2-lane oven	1.69	0.84	0.0099	1.65	1.39
1986	03-2285	Z198 cold box 3-lane oven	1.40	0.7	0.0082	1.37	1.15
3/15/89		P318 Plasma arc cupola#3	<u>38.8</u>	<u>38.8</u>	<u>45.72</u>	<u>59.7</u>	<u>1072.6</u>
						<u>0.82</u>	

TOTAL INCREASES                    66.26   52.56   45.8   71.55   1082.5   0.82

#### EMISSIONS DECREASE (TPY)

#### SHUTDOWN DATE

	SOURCE	PM	PM10	SO2	NOx	CO	Pb
01/15/86	P104 Oven- Core- Vert #2			1.52	0.76	0.0089	1.49
02/01/86	P277 Core machines shell #9-14		2.64	1.32	0.0037	0.62	0.52
01/01/88	P169 Old cupola #3		2.18	1.92	0.42	1.56	53.94
03/15/89	P131 Cupola #1		36.80	32.38	6.27	23.14	800.4
03/15/89	P132 Cupola #2 modification		<u>8.0</u>	<u>7.04</u>	<u>1.36</u>	<u>5.03</u>	<u>174.0</u>
					<u>0.05</u>		
	TOTAL DECREASES		<u>51.14</u>	<u>43.42</u>	<u>8.06</u>	<u>31.84</u>	<u>1030.11</u>
						<u>0.28</u>	
	<b>NET CHANGE</b>		<b><u>15.12</u></b>	<b><u>9.14</u></b>	<b><u>37.74</u></b>	<b><u>39.71</u></b>	<b><u>52.39</u></b>
							<b><u>0.54</u></b>

#### D. Conclusion

Netting over the 5-year contemporaneous period results in an increase in CO, NO<sub>x</sub>, SO<sub>2</sub>, PE (including PM<sub>10</sub>) and lead emissions less than the PSD significance levels. Since the net increase in potential emissions will be less than the PSD significance levels the source will net out of PSD permitting requirements.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL CERTIFIED MAIL  
DEFIANCE COUNTY**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No:** 03-14054

**DATE:** 10/28/2003

GM Powertrain Group, Defiance Plant  
Dennis Veith  
26437 State Route 281 East  
Defiance, OH 435120070

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$500** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

CC: USEPA

NWDO

IN

MI

**DEFIANCE COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL 03-14054 FOR AN AIR CONTAMINANT SOURCE FOR  
GM POWERTRAIN GROUP, DEFIANCE PLANT**

On 10/28/2003 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **GM Powertrain Group, Defiance Plant**, located at **26427 St Rte 281 E, Defiance, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 03-14054:

**Vertical cylindrical shaft melting furnace.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Don Waltermeyer, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402 [(419)352-8461]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 03-14054**

Application Number: 03-14054  
APS Premise Number: 0320010001  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: GM Powertrain Group, Defiance Plant  
Person to Contact: Dennis Veith  
Address: 26437 State Route 281 East  
Defiance, OH 435120070

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**26427 St Rte 281 E  
Defiance, Ohio**

Description of proposed emissions unit(s):  
**Vertical cylindrical shaft melting furnace.**

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

GM Powertrain Group, Defiance Plant

Facility ID: 0320010001

PTI Application: 03-14054

Issued: To be entered upon final issuance

**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.9 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.

**GM Powertrain Group, Defiance Plant**

**Facility ID: 0320010001**

**PTI Application: 03-14054**

**Issued: To be entered upon final issuance**

**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

**GM Powertrain Group, Defiance Plant**

**Facility ID: 0320010001**

**PTI Application: 03-14054**

**Issued: To be entered upon final issuance**

Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

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

#### **12. Air Pollution Nuisance**

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

**GM Powertrain Group, Defiance Plant**

**Facility ID: 0320010001**

**PTI Application: 03-14054**

**Issued: To be entered upon final issuance**

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

**1. Compliance Requirements**

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

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

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

**GM Powertrain Group, Defiance Plant**

**Facility ID: 0320010001**

**PTI Application: 03-14054**

**Issued: To be entered upon final issuance**

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

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

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**6. Public Disclosure**

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

**7. Applicability**

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

**8. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the

**GM Powertrain Group, Defiance Plant**

**Facility ID: 0320010001**

**PTI Application: 03-14054**

**Issued: To be entered upon final issuance**

facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	1072.6
NO <sub>x</sub>	59.7
SO <sub>2</sub>	45.7
PE	38.8
OC	15.9
Pb	0.82

15

**GM Powertrain Group, Defiance Plant**

**PTI Application: 03-14054**

**Issued: To be entered upon final issuance**

**Facility ID: 0320010001**

**GM Powertrain Group, Defiance Plant**

**PTI Application: 03-14054**

**Issued**

**Facility ID: 0320010001**

Emissions Unit ID: P318

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

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

NONE

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

NONE

GM P

PTI A

Emissions Unit ID: P318

**Issued: To be entered upon final issuance****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>	
		OAC rule 3745-17-07(A)
P318 - Plant 1 No. 3 Plasma arc/conventional cupola (includes 30 mm Btu/hr natural gas fired hot blast unit) with after burner and venturi scrubber	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-11(B)
		OAC rule 3745-18-06(E)
(Modification of PTI #03-3210 issued February 26, 1988 and PTI #03-7076 issued March 12, 1993)		OAC rule 3745-21-08(D)
		OAC rule 3745-23-06(B)
		OAC rule 3745-17-10(B)(1)

OAC rule 3745-31-05(D)

Issued

Emissions Unit ID: P318

Applicable Emissions  
Limitations/Control  
Measures

See A.I.2.d.

See A.I.2.c.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D), OAC rule 3745-17-07(A), OAC rule 3745-21-08(D), and OAC rule 3745-23-06(B).

See A.I.2.a.

Cupola emissions:

495.4 lbs carbon monoxide (CO)/hr

23.6 lbs nitrogen oxide (NO<sub>x</sub>)/hr

21.2 lbs sulfur dioxide (SO<sub>2</sub>)/hr

17.7 lbs particulate emissions (PE)/hr (See A.I.2.e)

0.38 lbs lead (Pb)/hr

7.4 lbs organic compounds (OC)/hr, 15.9 tons OC/yr

control requirements (See A.I.2.f)

Hot Blast emissions:

3.0 lbs NO<sub>x</sub>/hr

2.5 lb CO/hr

0.23 lb PE/hr

rolling, 12-month emission limitations (See A.I.2.b)

Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.

See A.I.2.a.

See A.I.2.a.

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The emission limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The permittee has requested the following federally enforceable emission limitations for purposes of avoiding Prevention of Significant (PSD) applicability:
- i. for cupola;
    - a. 1065.1 tons CO per rolling 12-month period
    - b. 50.7 tons NO<sub>x</sub> per rolling 12-month period
    - c. 45.6 tons SO<sub>2</sub> per rolling 12-month period
    - d. 38.1 tons PE per rolling 12-month period
    - e. 0.82 tons Pb per rolling 12-month period
  - ii. for hot blast unit;
    - a. 7.5 tons CO per rolling 12-month period
    - b. 9.0 tons NO<sub>x</sub> per rolling 12-month period
    - c. 0.69 tons PE per rolling 12-month period

The federally enforceable limitations are based on the hours of operation input restriction for the cupola specified in A.II.1 and natural gas usage input restriction for the hot blast unit specified in A.II.2.

- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06 by committing to comply with best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
- 2.d** CO gases emitted during the operation of the grey iron cupola shall be burned at 1300 degrees Fahrenheit for 0.3 seconds or greater in the direct-flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.

**Issued: To be entered upon final issuance**

- 2.e The PE limitations are inclusive of and assumed to be PM<sub>10</sub>.
- 2.f Best available technology (BAT) control requirements for this emissions unit has been determined to be a control system consisting of a direct flame afterburner, "wetcap" followed by a venturi scrubber. The control system shall achieve a maximum outlet concentration of 0.03 gr/dscf for PE.

**II. Operational Restrictions**

1. The maximum annual operating hours for this emissions unit shall not exceed 4300 for the cupola, based upon a rolling, 12-month summation of the operating hours. This is an existing emissions unit, and for purposes of demonstrating compliance during the first 12-months of operation, the permittee shall use existing records verified by the Ohio EPA field office.
2. The maximum annual natural gas usage for hot blast unit shall not exceed 180.0 mmCf/yr, based upon a rolling 12-month summation of natural gas usage.

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

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	15.0
1-2	30.0
1-3	45.0
1-4	60.0
1-5	75.0
1-6	90.0
1-7	105.0
1-8	120.0
1-9	135.0
1-10	150.0
1-11	165.0
1-12	180.0

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual natural gas usage shall be based upon a rolling 12-month summation of the natural gas usage.

**Issued**

Emissions Unit ID: P318

3. The pressure drop across the venturi scrubber shall be maintained at a value of not less than 58 inches water gauge while the emissions unit is in operation.
4. The venturi scrubber water flow rate shall be maintained at a value of not less than 800 gallons per minute (gpm) at all times while the emissions unit is in operation.
5. The permittee shall burn only natural gas in the hot blast unit.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall properly install, operate and maintain equipment to monitor the static pressure drop across the venturi scrubber and the venturi scrubber water flow rate while the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day while the emissions unit is in operation:

- a. the pressure drop across the venturi scrubber, inches of water, on a once per shift basis; and
  - b. the venturi scrubber water flow rate, in gpm, on a once per shift basis.
2. The permittee shall maintain monthly records of the following information:
    - a. the operating hours for each month, for the cupola;
    - b. the rolling, 12-month summation of the operating hours, for the cupola;
    - c. the quantity of natural gas combusted in the hot blast unit, in mmCf;
    - d. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage, in mmCf, for the hot blast unit;
    - e. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, in mmCf, based on a rolling, 12-month summation of the monthly natural gas usage, for the hot blast unit;
    - f. the emission rate, in tons/month for each of the following:
      - i. for the cupola; CO, NO<sub>x</sub>, SO<sub>2</sub>, PE and Pb (calculated by multiplying the maximum lb/hr emission rate for each pollutant by the monthly operating hours and dividing by 2000); and
      - ii. for the hot blast unit; CO, NO<sub>x</sub> and PE (calculated by multiplying the appropriate

22

**GM P**

**PTI A**

Emissions Unit ID: P318

**Issued: To be entered upon final issuance**

AP42 emission factor for each pollutant by the monthly natural gas usage and dividing by 2000).

**Issued: To be entered upon final issuance**

- g. the rolling, 12-month summation of the emission rates for:
  - i. for the cupola; CO, NO<sub>x</sub>, SO<sub>2</sub>, PE, and Pb; and
  - ii. for the hot blast unit; CO, NO<sub>x</sub>, and PE.
- 3. The permittee shall operate and maintain a temperature monitor and recorder which measures and records the combustion temperature within the direct-flame afterburner when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modification deemed necessary by the permittee.

The permittee shall collect and record the following information for each day while the emissions unit is in operation:

  - a. All 3-hour blocks of time during which the average combustion temperature within the direct-flame afterburner, when the emissions unit was in operation, was below 1,300 degrees.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
- 4. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in the hot blast unit.

**IV. Reporting Requirements**

- 1. The permittee shall submit deviation (excursion) reports that identify all recorded periods of time during which the following venturi scrubber parameters were not maintained at or above the required levels:
  - a. the static pressure drop across the venturi scrubber; and
  - b. the venturi scrubber water flow rate.
- 2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following for the cupola:
  - a. 12-month rolling operating hours restriction; and
  - b. the rolling, 12-month emission limitations for CO, NO<sub>x</sub>, SO<sub>2</sub>, PE, and Pb.
- 3. The permittee shall submit deviation (excursion) reports which identify all exceedances of any of

the following for the hot blast unit:

- a. for the first 12 calendar months of operation under the provisions of this permit, all exceedance of the allowable cumulative natural gas usage; and
  - b. after the first 12 calendar months of operation under the provisions of this permit, the annual natural gas usage restrictions and the rolling, 12-month emission limitations for CO, NO<sub>x</sub> and PE.
4. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the hot blast unit. Each report shall be submitted within 30 days after the deviation occurs.
  5. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the direct-flame afterburner does not comply with the temperature limitation specified above.
  6. Deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - a. Emission Limitation: 495.4 lbs CO/hr, 1065.1 lbs CO per rolling 12-month period (cupola)  
  
Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack test specified in paragraph A.V.2 of the terms and conditions of this permit.  
  
The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2
  - b. Emission Limitation: 23.6 lbs NO<sub>x</sub>/hr, 50.7 tons NO<sub>x</sub> per rolling 12-month period (cupola)  
  
Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack test specified in paragraph A.V.2 of the terms and conditions of this permit.  
  
The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2.
  - c. Emission Limitation: 21.2 lbs SO<sub>2</sub>/hr, 45.6 tons SO<sub>2</sub> per rolling 12-month period (cupola)

25

**GM P**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P318

**Issued: To be entered upon final issuance**

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack test specified in paragraph A.V.2 of the terms and conditions of this permit.

The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2

- d. Emission Limitation: 17.7 lbs PE/hr, 38.1 tons PE per rolling 12-month period (cupola)

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack test specified in paragraph A.V.2 of the terms and conditions of this permit.

The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2

- e. Emission Limitation: 0.38 lbs Pb/hr, 0.82 tons Pb per rolling 12-month period (cupola)

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack test specified in paragraph A.V.2 of the terms and conditions of this permit.

The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2

- f. Emission Limitation: 7.4 lbs OC/hr, 15.9 tons OC/yr (cupola)

Applicable Compliance Method: The permittee shall demonstrate compliance with the hourly emission limitation based upon the results of the stack test specified in paragraph A.V.2 of the terms and conditions of this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 4300 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation and the maximum hours of operation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 2.5 lbs CO/hr, 7.5 tons CO per rolling 12-month period (hot blast)

Applicable Compliance Method: The permittee may determine compliance with the hourly allowable CO emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised

Emissions Unit ID: P318

7/98) of 84 lbs CO/mm cu. ft. If required, compliance with the hourly allowable CO emission limitation above shall be determined in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A.

The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2

- h. Emission Limitations: 3.0 lbs NO<sub>x</sub>/hr, 9.0 tons NO<sub>x</sub> per rolling 12-month period (hot blast)

Applicable Compliance Method: The permittee may determine compliance with the hourly allowable NO<sub>x</sub> emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NO<sub>x</sub>/mm cu. ft. If required, compliance with the hourly allowable NO<sub>x</sub> emission limitation above shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2

- i. Emission Limitation: 0.23 lb PE/hr, 0.69 tons PE per rolling 12-month period (hot blast)

Applicable Compliance Method: The permittee may determine compliance with the hourly allowable PE emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 7.6 lbs PE/mm cu. ft. If required, compliance with the hourly allowable PE limitation above shall be determined in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

The permittee shall demonstrate compliance with the rolling 12-month limitation by the record keeping requirements in paragraph A.III.2

- j. Emission Limitation: Visible PE from the stack(s) servicing this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required compliance shall be demonstrated in accordance with OAC rule 3745-17-03(B).

2. 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 issuance of the PTI. If the emissions unit is not operating in a production capacity during this time period, testing will be required within 90 days after the emissions unit has achieved a production level which would allow for three test runs (each one hour minimum in duration) to be performed in accordance with the methods specified in section A.V.2.c

**Issued: To be entered upon final issuance**

- b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for CO, PE, NO<sub>x</sub>, SO<sub>2</sub>, OC and Pb from the cupola. The testing shall also be conducted to demonstrate compliance with the maximum outlet concentration of 0.03 gr PE/dscf from the cupola.
- c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate:
- CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
- PE, Methods 1-5 of 40 CFR Part 60, Appendix A,;
- NO<sub>x</sub>, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
- SO<sub>2</sub>, Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.
- OC, Methods 1-4 and either 18, 25, or 25A of 40 CFR Part 60, Appendix A;
- Pb, Methods 1-4 and 12 of 40 CFR Part 60, Appendix A.
- d. The test shall be conducted while the emissions unit is operating at normal production, 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 and "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 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

**GM Powertrain Group, Defiance Plant**

**PTI Application: 03 14054**

**Issued**

**Facility ID: 0320010001**

Emissions Unit ID: P318

include in the report the operating parameters as required in (V)(1)(c) above.

**VI. Miscellaneous Requirements**

NONE

GM P  
PTI A

Emissions Unit ID: P318

Issued: To be entered upon final issuance

**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>
P318 - Plant 1 No. 3 Plasma arc/conventional cupola (includes 30 mm Btu/hr natural gas fired hot blast unit) with after burner and venturi scrubber  (Modification of PTI #03-3210 issued February 26, 1988 and PTI #03-7076 issued March 12, 1993)	None	None

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

31

**GM P**

**PTI A**

**Issued: To be entered upon final issuance**

**V. Testing Requirements**

Emissions Unit ID: P318

None

32

**GM P**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P318

**VI. Miscellaneous Requirements**

None