



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL MODIFICATION
DEFIANCE COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 03-13364

DATE: 11/4/2003

GM Powertrain Group, Defiance Plant
William Schlatter
26437 St Rte 281 E
Defiance, OH 43512-0070

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. 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 modification 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 modification may be issued in proposed of 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 modification a fee of **\$ 1725** 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

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

CC: USEPA

NWDO

IN

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DEFIANCE

COUNTY

PUBLIC NOTICE

ISSUANCE OF DRAFT PERMIT TO INSTALL **03-13364** FOR AN AIR CONTAMINANT SOURCE FOR
GM POWERTRAIN GROUP, DEFIANCE PLANT

On 11/4/2003 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 03-13364:

Modification of PTI to update terms and conditions, remove units that were never installed and remove units that are under the operation of another entity.

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.

Cindy Charles, Portsmouth City Health Department, 740 Second Street, Portsmouth, OH 45662
[(740)353-5156]



**Permit To Install
Terms and Conditions**

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

DRAFT MODIFICATION OF PERMIT TO INSTALL 03-13364

Application Number: 03-13364
APS Premise Number: 0320010001
Permit Fee: **To be entered upon final issuance**
Name of Facility: GM Powertrain Group, Defiance Plant
Person to Contact: William Schlatter
Address: 26437 St Rte 281 E
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):
Modification of PTI to update terms and conditions, remove units that were never installed and remove units that are under the operation of another entity.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

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.

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- 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

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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

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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.

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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. 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.

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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 application must be made to the Director for the installation or modification of any other emissions unit(s).

8. 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.

9. Additional Reporting Requirements When There Are No Deviations of Federally

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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>
NO _x	36.02
PM ₁₀	59.13
VOC	46.27
CO	59.76
HF	2.4

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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 sources that GMC Powertrain has removed or will remove (based on actual) or will control, as well as the new sources. For all units that are installing controls, or being shut down, to gain a net decrease, the permittee shall install the controls proposed on those units, or accomplish the permanent shut down of the units involved, prior to startup of the units under this permit.

PM EMISSIONS INCREASE (TPY)

<u>CONST.STARTUP</u>		<u>PTI#</u>	<u>SOURCE</u>	<u>INCREASE</u>
<u>DATE</u>	<u>DATE</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

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5/27/98	7/11/98	03-10191	P400 Blast Cabinet- sample cast; Plt. 2E	1.10	
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	
5/1/00	7/1/00	03-13375	P430 Cold Box Core Machine #119	2.18	
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

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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	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*	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

161.43 TPY

*unpermitted units

PM EMISSIONS DECREASE (TPY)

<u>SHUTDOWN DATE</u>	<u>SOURCE</u>	<u>DECREASE</u>
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

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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

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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

235.62 TPY

* EU's are still in operation but were previously uncontrolled. GMC Powertrain has installed control equipment on these units and is claiming credit for the actual reduction in emissions.

VOC EMISSIONS INCREASE (TPY)

<u>CONST.STARTUP</u>		<u>PTI#</u>	<u>SOURCE</u>	<u>INCREASE</u>
<u>DATE</u>	<u>DATE</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
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
5/1/00	7/1/00	03-13375	4430 Cold Box Core Machine #119	10.28
3/1/00	01/01/01	03-13364	P407 Polystyrene bead preparations	0.44
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	P414 Castline#4	1.80
4/1/00	01/01/01	03-13364	P419 Sand Reclaim Furnace #1	0.57

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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	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**Facility ID: 0320010001****PTI Application: 03-13364****Issued: To be entered upon final issuance**

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)	<u>0.08</u>
				210.75TPY

*unpermitted units

VOC EMISSIONS DECREASE (TPY)

<u>SHUTDOWN DATE</u>	<u>SOURCE</u>	<u>DECREASE</u>
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	<u>5.64</u>
		181.21 TPY

The new change in emissions, due to the installation of the planned new source(s) in this PTI, over the contemporaneous time period, will be a net decrease of 73.39 TPY of PM₁₀ and a net increase of 29.54 TPY of VOC.

2. Prevention of Significant Deterioration (PSD)

- a. Emissions units P411, P412, P413, P414, P419, P420, P421, P422, P423, P424, P425,

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P426, P427, P428, P429, B003, B004, and B005 as described in this Permit to Install (PTI), is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U.S. EPA). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

In accordance with 40 CFR 124.15, 124.19, and 124.20 the following shall apply:

- i. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and
- ii. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United State Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, DC 21460

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

1. AIR TOXICS

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):

- a. Pollutant: hexane
TLV (mg/m3): 176
Maximum Hourly Emission Rate (lbs/hr): 0.083

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Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 60*

MAGLC (ug/m3): 4,190

b. Pollutant: pentane

TLV (mg/m3): 1770

Maximum Hourly Emission Rate (lbs/hr): 2.94

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 668*

MAGLC (ug/m3): 42,143

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- c. Pollutant: styrene
TLV (mg/m³): 85
Maximum Hourly Emission Rate (lbs/hr): 0.21
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 65**
MAGLC (ug/m³): 2,024

- d. Pollutant: butane
TLV (mg/m³): 1901.6
Maximum Hourly Emission Rate (lbs/hr): 1.92
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 70*
MAGLC (ug/m³): 45,276

- e. Pollutant: hydrogen fluoride
TLV (mg/m³): 1.8
Maximum Hourly Emission Rate (lbs/hr): 10.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 59.9***
MAGLC (ug/m³): 180

- f. Pollutant: hydrogen chloride
TLV (mg/m³): 5.5
Maximum Hourly Emission Rate (lbs/hr): 17.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 89.5***
MAGLC (ug/m³): 550

- g. Pollutant: chlorine
TLV (mg/m³): 1.45
Maximum Hourly Emission Rate (lbs/hr): 17.28
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 87.0***
MAGLC (ug/m³): 145

*The Predicted 1-Hour Maximum Ground-Level Concentration is a cumulative summation of the predicted 1-hour maximum ground-level concentrations from all applicable emissions units of this permit action, which include the following emissions units: B001, B002, B003, P411, P412, P413, P414, P419, P420, P421, P422, P423, P424, P425, P426, P428, P429 and the following exempt units: one Pre-heater and one HVAC unit.

**The Predicted 1-Hour Maximum Ground-Level Concentration is a cumulative summation of the predicted 1-hour maximum ground-level concentrations from all applicable emissions units of this permit action, which include the following emissions units: P411, P412, P413, P414, P419, P420, P421, and P422.

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***The Predicted 1-Hour Maximum Ground-Level Concentration is a cumulative summation of the predicted 1-hour maximum ground-level concentrations from all applicable emissions units of this permit action, which include the following emissions units: P423, P424, P426 and P427.

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

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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.

GM P

PTI A

Emissions Unit ID: P407

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P407 - expandable polystyrene (EPS) bead preparation (pre-expander and pentane reduction) - Cell #1	OAC rule 3745-31-05(D)	36.79 tons volatile organic compounds (VOC)/yr, based upon a rolling 12-month summation of bead throughput (see A.I.2.a & A.II.1)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	3.07 lbs VOC/hr, 13.45 tons VOC/yr (see A.I.2.b & A.II.1)
	OAC rule 3745-21-07(G)	See A.I.2.c.

2. Additional Terms and Conditions

- 2.a The permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting the polystyrene bead usage. Combined annual VOC emissions from emissions units P407, P408, P409 and P410 shall not exceed 36.79 tons/yr, based on a rolling, 12-month restriction of polystyrene bead throughput (see A.II.2).
- 2.b The 3.07 lbs VOC/hr emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limitation.
- 2.c This emissions unit is not subject to the requirements specified in OAC rule 3745-21-07(G) because no liquid organic material, as defined in OAC rule 3745-21-01(C)(3), enters the EPS cell as a separate raw material.

GMP

PTI A

Emissions Unit ID: P407

Issued: To be entered upon final issuance**II. Operational Restrictions**

1. The raw expandable polystyrene beads used in this emissions unit shall not exceed a total VOC content of 6.0 percent by weight based on a weighted monthly average.
2. The maximum annual polystyrene bead throughput for emissions units P407, P408, P409 and P410 shall not exceed 1,839,600 lbs, combined per rolling 12-month period.

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

<u>Month(s)</u>	<u>Maximum Cumulative Bead throughput (lbs)</u>
1	153,300
1-2	306,600
1-3	459,900
1-4	613,200
1-5	766,500
1-6	919,800
1-7	1,073,100
1-8	1,226,400
1-9	1,379,700
1-10	1,533,000
1-11	1,686,300
1-12	1,839,600

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual bead throughput shall be based upon a rolling 12-month summation of bead throughput.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P407, P408, P409 and P410:
 - a. the company identification for each lot of polystyrene beads processed;
 - b. the VOC content of polystyrene beads, weight percent, for each lot processed (Cvoc);
 - c. the amount of polystyrene beads processed, in pounds, for each lot processed (Mc);

- d. the amount of polystyrene beads processed, in pounds, for the month (summation of c);
 - e. the weighted average of VOC content (in weight percent) of the polystyrene beads for the month calculated as follows:

$$C_{\text{voc}}(\text{avg}) = \frac{\sum (C_{\text{voc}_i} \times M_{c_i})}{\sum M_{c_i}}$$
 - f. for the first 12 months of operation under the provisions of this permit, the cumulative amount of polystyrene beads processed, in pounds; and
 - g. after the first 12 calendar months of operation under the provisions of this permit, the annual amount of polystyrene beads processed, in pounds, based on a rolling 12-month summation of the monthly amount of polystyrene beads processed.
2. In addition to the above information, the permittee shall also record the following information each month for emission units P407, P408, P409, and P410:
- a. the calculated VOC emission rate, in tons per month, $[C_{\text{voc}}(\text{avg}) \times \text{A.III.1.d}]$;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly VOC emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual VOC emission rate, based on a rolling, 12-month summation of the monthly VOC emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedance of any of the following:
 - a. for the first 12 calendar months of operation, all exceedance of the allowable monthly, cumulative bead usage; and
 - b. the annual bead usage restrictions and emission limitation per rolling 12-month period.
2. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:

Issued: To be entered upon final issuance

- a. the emissions testing shall be conducted within 6 months after start-up of this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A.
 - d. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.
2. 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 include in the report the operating parameters as required in (V)(1)(c) above.

3. Compliance with the emission limitations of this permit shall be determined in accordance with the following methods:
- a. Emission Limitation: 36.79 tons VOC per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be determined by the record keeping specified in section A.III.2 of the terms and conditions of this permit.
 - b. Emission Limitation: 3.07 lb VOC/hr, 13.45 tons VOC/yr

GM Powertrain Group, Defiance Plant**PTI Application: 03 13364****Issued****Facility ID: 0320010001**

Emissions Unit ID: P407

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

VI. Miscellaneous Requirements

None

GM P

PTI A

Emissions Unit ID: P407

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>
P407 - Polystyrene bead preparation (pre-expander and pentane reduction) - Cell #1 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

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GM P

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P407

VI. Miscellaneous Requirements

None

GM P

PTI A

Emissions Unit ID: P408

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P408 - expandable polystyrene (EPS) bead preparation (pre-expander and pentane reduction) - Cell #2	OAC rule 3745-31-05(D)	36.79 tons volatile organic compounds (VOC)/yr, based upon a rolling 12-month summation of bead throughput (see A.I.2.a & A.II.1)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	3.07 lbs VOC/hr, 13.45 tons VOC/yr (see A.I.2.b & A.II.1)
	OAC rule 3745-21-07(G)	See A.I.2.c.

2. Additional Terms and Conditions

- 2.a The permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting the polystyrene bead usage. Combined annual VOC emissions from emissions units P407, P408, P409 and P410 shall not exceed 36.79 tons/yr, based on a rolling, 12-month restriction of polystyrene bead throughput (see A.II.2).
- 2.b The 3.07 lbs VOC/hr emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limitation.
- 2.c This emissions unit is not subject to the requirements specified in OAC rule 3745-21-07(G) because no liquid organic material, as defined in OAC rule 3745-21-01(C)(3), enters the EPS cell as a separate raw material.

GMP

PTI A

Emissions Unit ID: P408

Issued: To be entered upon final issuance**II. Operational Restrictions**

1. The raw expandable polystyrene beads used in this emissions unit shall not exceed a total VOC content of 6.0 percent by weight based on a weighted monthly average.
2. The maximum annual polystyrene bead throughput for emissions units P407, P408, P409 and P410 shall not exceed 1,839,600 lbs, combined per rolling 12-month period.

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

<u>Month(s)</u>	<u>Maximum Cumulative Bead throughput (lbs)</u>
1	153,300
1-2	306,600
1-3	459,900
1-4	613,200
1-5	766,500
1-6	919,800
1-7	1,073,100
1-8	1,226,400
1-9	1,379,700
1-10	1,533,000
1-11	1,686,300
1-12	1,839,600

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual bead throughput shall be based upon a rolling 12-month summation of bead throughput.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P407, P408, P409 and P410:
 - a. the company identification for each lot of polystyrene beads processed;
 - b. the VOC content of polystyrene beads, weight percent, for each lot processed (Cvoc);
 - c. the amount of polystyrene beads processed, in pounds, for each lot processed (Mc);

- d. the amount of polystyrene beads processed, in pounds, for the month (summation of c);
- e. the weighted average of VOC content (in weight percent) of the polystyrene beads for the month calculated as follows:

$$C_{\text{voc}}(\text{avg}) = \frac{\sum (C_{\text{voc}_i} \times M_{c_i})}{\sum M_{c_i}}$$

- f. for the first 12 months of operation under the provisions of this permit, the cumulative amount of polystyrene beads processed, in pounds; and
- g. after the first 12 calendar months of operation under the provisions of this permit, the annual amount of polystyrene beads processed, in pounds, based on a rolling 12-month summation of the monthly amount of polystyrene beads processed.

- 2. In addition to the above information, the permittee shall also record the following information each month for emission units P407, P408, P409, and P410:
 - a. the calculated VOC emission rate, in tons per month, $[C_{\text{voc}}(\text{avg}) \times \text{A.III.1.d}]$;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly VOC emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual VOC emission rate, based on a rolling, 12-month summation of the monthly VOC emissions.

IV. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports which identify all exceedance of any of the following:
 - a. for the first 12 calendar months of operation, all exceedance of the allowable monthly, cumulative bead usage; and
 - b. the annual bead usage restrictions and emission limitation per rolling 12-month period.
- 2. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

- 1. The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:

Issued: To be entered upon final issuance

- a. the emissions testing shall be conducted within 6 months after start-up of this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A.
 - d. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.
2. 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 include in the report the operating parameters as required in (V)(1)(c) above.

3. Compliance with the emission limitations of this permit shall be determined in accordance with the following methods:
- a. Emission Limitation: 36.79 tons VOC per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be determined by the record keeping specified in section A.III.2 of the terms and conditions of this permit.
 - b. Emission Limitation: 3.07 lb VOC/hr, 13.45 tons VOC/yr

GM Powertrain Group, Defiance Plant**PTI Application: 02-12264****Issued****Facility ID: 0320010001**

Emissions Unit ID: P408

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

VI. Miscellaneous Requirements

None

GM P

PTI A

Emissions Unit ID: P408

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>
P408 - expandable polystyrene (EPS) bead preparation (pre-expander and pentane reduction) - Cell #2 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

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GM P

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P408

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P409

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P409 - expandable polystyrene (EPS) bead preparation (pre-expander and pentane reduction) - Cell #3	OAC rule 3745-31-05(D)	36.79 tons volatile organic compounds (VOC)/yr, based upon a rolling 12-month summation of bead throughput (see A.I.2.a & A.II.1)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	3.07 lbs VOC/hr, 13.45 tons VOC/yr (see A.I.2.b & A.II.1)
	OAC rule 3745-21-07(G)	See A.I.2.c.

2. Additional Terms and Conditions

- 2.a The permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting the polystyrene bead usage. Combined annual VOC emissions from emissions units P407, P408, P409 and P410 shall not exceed 36.79 tons/yr, based on a rolling, 12-month restriction of polystyrene bead throughput (see A.II.2).
- 2.b The 3.07 lbs VOC/hr emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limitation.
- 2.c This emissions unit is not subject to the requirements specified in OAC rule 3745-21-07(G) because no liquid organic material, as defined in OAC rule 3745-21-01(C)(3), enters the EPS cell as a separate raw material.

II. Operational Restrictions

1. The raw expandable polystyrene beads used in this emissions unit shall not exceed a total VOC content of 6.0 percent by weight based on a weighted monthly average.
2. The maximum annual polystyrene bead throughput for emissions units P407, P408, P409 and P410 shall not exceed 1,839,600 lbs, combined per rolling 12-month period.

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

<u>Month(s)</u>	<u>Maximum Cumulative Bead throughput (lbs)</u>
1	153,300
1-2	306,600
1-3	459,900
1-4	613,200
1-5	766,500
1-6	919,800
1-7	1,073,100
1-8	1,226,400
1-9	1,379,700
1-10	1,533,000
1-11	1,686,300
1-12	1,839,600

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual bead throughput shall be based upon a rolling 12-month summation of bead throughput.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P407, P408, P409 and P410:
 - a. the company identification for each lot of polystyrene beads processed;
 - b. the VOC content of polystyrene beads, weight percent, for each lot processed (Cvoc);
 - c. the amount of polystyrene beads processed, in pounds, for each lot processed (Mc);
 - d. the amount of polystyrene beads processed, in pounds, for the month (summation of c);

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- e. the weighted average of VOC content (in weight percent) of the polystyrene beads for the month calculated as follows:

$$C_{\text{voc}}(\text{avg}) = \frac{\sum (C_{\text{voc}_i} \times M_{c_i})}{\sum M_{c_i}}$$

- f. for the first 12 months of operation under the provisions of this permit, the cumulative amount of polystyrene beads processed, in pounds; and
- g. after the first 12 calendar months of operation under the provisions of this permit, the annual amount of polystyrene beads processed, in pounds, based on a rolling 12-month summation of the monthly amount of polystyrene beads processed.
2. In addition to the above information, the permittee shall also record the following information each month for emission units P407, P408, P409, and P410:
- the calculated VOC emission rate, in tons per month, $[C_{\text{voc}}(\text{avg}) \times \text{A.III.1.d}]$;
 - for the first 12 months of operation under the provisions of this permit, the cumulative monthly VOC emission rate, in tons; and
 - after the first 12 months of operation under the provisions of this permit, the annual VOC emission rate, based on a rolling, 12-month summation of the monthly VOC emissions.

IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports which identify all exceedance of any of the following:
 - for the first 12 calendar months of operation, all exceedance of the allowable monthly, cumulative bead usage; and
 - the annual bead usage restrictions and emission limitation per rolling 12-month period.
- The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

- The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:

Issued: To be entered upon final issuance

- a. the emissions testing shall be conducted within 6 months after start-up of this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A.
 - d. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.
2. 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 include in the report the operating parameters as required in (V)(1)(c) above.

3. Compliance with the emission limitations of this permit shall be determined in accordance with the following methods:
- a. Emission Limitation: 36.79 tons VOC per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be determined by the record keeping specified in section A.III.2 of the terms and conditions of this permit.
 - b. Emission Limitation: 3.07 lb VOC/hr, 13.45 tons VOC/yr

GM Powertrain Group, Defiance Plant**PTI Application: 03-13364****Issued****Facility ID: 0320010001**

Emissions Unit ID: P409

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

VI. Miscellaneous Requirements

NONE

GM P
PTI A

Emissions Unit ID: P409

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>
P409 - expandable polystyrene (EPS) bead preparation (pre-expander and pentane reduction) - Cell #3		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

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GM P

PTI A

Issued: To be entered upon final issuance

NONE

Emissions Unit ID: P409

GM P
PTI A

Emissions Unit ID: P410

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P410 - expandable polystyrene (EPS) bead preparation (pre-expander and pentane reduction) - Cell #4	OAC rule 3745-31-05(D)	36.79 tons volatile organic compounds (VOC)/yr, based upon a rolling 12-month summation of bead throughput (see A.I.2.a & A.II.1)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	3.07 lbs VOC/hr, 13.45 tons VOC/yr (see A.I.2.b & A.II.1)
	OAC rule 3745-21-07(G)	See A.I.2.c.

2. Additional Terms and Conditions

- 2.a The permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting the polystyrene bead usage. Combined annual VOC emissions from emissions units P407, P408, P409 and P410 shall not exceed 36.79 tons/yr, based on a rolling, 12-month restriction of polystyrene bead throughput (see A.II.2).
- 2.b The 3.07 lbs VOC/hr emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limitation.
- 2.c This emissions unit is not subject to the requirements specified in OAC rule 3745-21-07(G) because no liquid organic material, as defined in OAC rule 3745-21-01(C)(3), enters the EPS cell as a separate raw material.

II. Operational Restrictions

1. The raw expandable polystyrene beads used in this emissions unit shall not exceed a total VOC content of 6.0 percent by weight based on a weighted monthly average.
2. The maximum annual polystyrene bead throughput for emissions units P407, P408, P409 and P410 shall not exceed 1,839,600 lbs, combined per rolling 12-month period.

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

<u>Month(s)</u>	<u>Maximum Cumulative Bead throughput (lbs)</u>
1	153,300
1-2	306,600
1-3	459,900
1-4	613,200
1-5	766,500
1-6	919,800
1-7	1,073,100
1-8	1,226,400
1-9	1,379,700
1-10	1,533,000
1-11	1,686,300
1-12	1,839,600

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual bead throughput shall be based upon a rolling 12-month summation of bead throughput.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P407, P408, P409 and P410:
 - a. the company identification for each lot of polystyrene beads processed;
 - b. the VOC content of polystyrene beads, weight percent, for each lot processed (Cvoc);
 - c. the amount of polystyrene beads processed, in pounds, for each lot processed (Mc);
 - d. the amount of polystyrene beads processed, in pounds, for the month (summation of c);

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- e. the weighted average of VOC content (in weight percent) of the polystyrene beads for the month calculated as follows:

$$C_{\text{voc}}(\text{avg}) = \frac{\sum (C_{\text{voc}_i} \times M_{\text{c}_i})}{\sum M_{\text{c}_i}}$$
 - f. for the first 12 months of operation under the provisions of this permit, the cumulative amount of polystyrene beads processed, in pounds; and
 - g. after the first 12 calendar months of operation under the provisions of this permit, the annual amount of polystyrene beads processed, in pounds, based on a rolling 12-month summation of the monthly amount of polystyrene beads processed.
2. In addition to the above information, the permittee shall also record the following information each month for emission units P407, P408, P409, and P410:
 - a. the calculated VOC emission rate, in tons per month, $[C_{\text{voc}}(\text{avg}) \times \text{A.III.1.d}]$;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly VOC emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual VOC emission rate, based on a rolling, 12-month summation of the monthly VOC emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedance of any of the following:
 - a. for the first 12 calendar months of operation, all exceedance of the allowable monthly, cumulative bead usage; and
 - b. the annual bead usage restrictions and emission limitation per rolling 12-month period.
2. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:

Emissions Unit ID: P410

- a. the emissions testing shall be conducted within 6 months after start-up of this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A.
 - d. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.
2. 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 include in the report the operating parameters as required in (V)(1)(c) above.

3. Compliance with the emission limitations of this permit shall be determined in accordance with the following methods:
- a. Emission Limitation: 36.79 tons VOC per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be determined by the record keeping specified in section A.III.2 of the terms and conditions of this permit.
 - b. Emission Limitation: 3.07 lb VOC/hr, 13.45 tons VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and A.V.2 of the terms and conditions of

GM P

PTI A

Emissions Unit ID: P410

Issued: To be entered upon final issuance
this permit.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P410

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>
P410 - expandable polystyrene (EPS) bead preparation (pre-expander and pentane reduction) - Cell #4 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

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>
P411 - Castline (aluminum pouring, cooling, cleaning, & sand shakeout) with RCO and duct burner - Cell#1 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)
	OAC rule 3745-31-05(D)
	OAC rule 3745-17-11(B)
	OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(A)

GM P

PTI A

Emissions Unit ID: P411

Issued: To be entered upon final issuance

<p>Applicable Emissions <u>Limitations/Control</u> <u>Measures</u></p>	<p>tons VOC/yr 1.2 lbs particulate emissions (PE)/hr, 5.26 tons PE/yr</p>
<p>control requirements (see A.I.2.a)</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
<p>Duct Burner emissions: 13.61 tons nitrogen oxide (NO_x) per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)</p>	<p>20% opacity as a six-minute average, except as provided by rule</p>
<p>Regenerative Catalytic Oxidizer (RCO) emissions: 6.93 tons NO_x per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)</p>	
<p>The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20) and OAC rule 3745-17-07(A).</p>	
<p>Use of baghouse 2.27 lbs NO_x/hr, 9.94 tons NO_x/yr</p>	
<p>2.1 lbs carbon monoxide (CO)/hr, 9.2 tons CO/yr</p>	
<p>0.41 lbs volatile organic compounds (VOC)/hr, 1.8</p>	

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions.
- i. use of duct burner equipped with low NO_x burners and designed to emit NO_x at a rate of 80 lb/mmCf of natural gas burned.
 - ii. use of RCO equipped with low NO_x burners and designed to emit NO_x at a rate of 110 lb/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from the duct burners on emissions units P411, P412, P413 and P414 shall not exceed 13.61 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1). Combined annual NO_x emissions from the RCO on emissions units P411, P412, P413 and P414 shall not exceed 6.93 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.2).
- 2.c** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage on the duct burners for emissions units P411, P412, P413 and P414 shall not exceed 340.2 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table for the duct burners for emissions units P411, P412, P413 and P414:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	28
1-2	57
1-3	85
1-4	114
1-5	142
1-6	170
1-7	199
1-8	227
1-9	256
1-10	284
1-11	312
1-12	340.2

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

- The maximum annual natural gas usage on the RCO for emissions units P411, P412, P413 and P414 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels, for the RCO's for emissions units P411, P412, P413 and P414, specified in the following table:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

After the first 12 calendar months of operation under the provisions permit, compliance with the

Issued: To be entered upon final issuance

annual natural gas usage shall be based upon a rolling 12-month summation of the natural gas usage.

3. The temperature of the catalyst bed, in the RCO shall not be less than 650 degrees Fahrenheit when the emissions unit is in operation.
4. To ensure proper operation of the emissions unit, the permittee shall employ a "interlock system" that only allows operation of the emissions unit when the catalytic bed temperature in the RCO is in compliance with the operational restriction in section A.II.3. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.3 are operational (i.e. temperature monitor failure will shutdown the operation).
5. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all duct burners, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the duct burners; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the duct burners, based on a rolling, 12-month summation of the monthly natural gas usage.
2. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all RCO's, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the RCO's; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the RCO's, based on a rolling, 12-month summation of the monthly natural gas usage.

Issued: To be entered upon final issuance

3. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the duct burners;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, from all the duct burners, in tons; and
 - c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the duct burners, based on a rolling, 12-month summation of the monthly NO_x emissions.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the RCO's;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, from all the RCO's, in tons; and
 - c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the RCO's, based on a rolling, 12-month summation of the monthly NO_x emissions.
5. The permittee shall maintain monthly records that document any time periods when the "interlock system" associated with the RCO failed to operate in accordance with the requirements in sections A.II.4. of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
6. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:

- a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the duct burners; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for all the duct burners.
2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
- a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the RCO's; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for the RCO's.
3. The permittee shall submit deviation (excursion) reports which identify any time periods the "interlock system" associated with the RCO did not operate in compliance with the requirements specified in section A.II.4.
4. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
5. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A; for PE, Method 5 of 40 CFR Part 60, Appendix A; for NO_x, Method 7 of 40 CFR Part 60, Appendix A; for CO, Method 10 of 40 CFR Part 60, Appendix A.
 - d. The test shall be conducted while the emissions unit is operating at its maximum capacity,

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unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 13.61 tons NO_x per rolling 12-month period from the duct burner for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.
 - b. Emission Limitation: 6.93 tons NO_x per rolling 12-month period from the RCO for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.
 - c. Emission Limitation: 2.27 lbs NO_x/hr, 9.94 tons NO_x/yr

Applicable Compliance Method: The lb/hr NO_x emission was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of

Emissions Unit ID: P411

the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 2.1 lb CO/hr, 9.2 tons CO/yr

Applicable Compliance Method: The lb/hr CO emission rate was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 0.41 lb VOC/hr, 1.8 tons VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 1.2 lbs PE/hr, 5.26 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown

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with the annual limitation.

g. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

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>
P411 - Castline with duct burner and regenerative catalytic oxidizer (RCO) [aluminum pouring, cooling, cleaning, & sand shakeout] - Cell#1		
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

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Emissions Unit ID: P411

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

NONE

GM P
PTI A

Emissions Unit ID: P412

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>
P412 - Castline (aluminum pouring, cooling, cleaning, & sand shakeout) with RCO and duct burner - Cell#2	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20) OAC rule 3745-31-05(D)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(A)

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Applicable Emissions Limitations/Control Measures	tons VOC/yr
control requirements (see A.I.2.a)	1.2 lbs particulate emissions (PE)/hr, 5.26 tons PE/yr
Duct Burner emissions:	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
13.61 tons nitrogen oxide (NO _x) per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	20% opacity as a six-minute average, except as provided by rule
Regenerative Catalytic Oxidizer (RCO) emissions:	
6.93 tons NO _x per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	
The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20) and OAC rule 3745-17-07(A).	
Use of baghouse	
2.27 lbs NO _x /hr, 9.94 tons NO _x /yr	
2.1 lbs carbon monoxide (CO)/hr, 9.2 tons CO/yr	
0.41 lbs volatile organic compounds (VOC)/hr, 1.8	

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions.
- i. use of duct burner equipped with low NO_x burners and designed to emit NO_x at a rate of 80 lb/mmCf of natural gas burned.
 - ii. use of RCO equipped with low NO_x burners and designed to emit NO_x at a rate of 110 lb/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from the duct burners on emissions units P411, P412, P413 and P414 shall not exceed 13.61 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1). Combined annual NO_x emissions from the RCO on emissions units P411, P412, P413 and P414 shall not exceed 6.93 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.2).
- 2.c** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage on the duct burners for emissions units P411, P412, P413 and P414 shall not exceed 340.2 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table for the duct burners for emissions units P411, P412, P413 and P414:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	28
1-2	57
1-3	85
1-4	114
1-5	142
1-6	170
1-7	199
1-8	227
1-9	256
1-10	284
1-11	312
1-12	340.2

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

- The maximum annual natural gas usage on the RCO for emissions units P411, P412, P413 and P414 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels, for the RCO's for emissions units P411, P412, P413 and P414, specified in the following table:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

After the first 12 calendar months of operation under the provisions permit, compliance with the

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annual natural gas usage shall be based upon a rolling 12-month summation of the natural gas usage.

3. The temperature of the catalyst bed, in the RCO SHALL not be less than 650 degrees Fahrenheit when the emissions unit is in operation.
4. To ensure proper operation of the emissions unit, the permittee shall employ a "interlock system" that only allows operation of the emissions unit when the catalytic bed temperature in the RCO is in compliance with the operational restriction in section A.II.3. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.3 are operational (i.e. temperature monitor failure will shutdown the operation).
5. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all duct burners, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the duct burners; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the duct burners, based on a rolling, 12-month summation of the monthly natural gas usage.
2. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all RCO's, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the RCO's; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the RCO's, based on a rolling, 12-month summation of the monthly natural gas usage.

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3. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the duct burners;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, from all the duct burners, in tons; and
 - c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the duct burners, based on a rolling, 12-month summation of the monthly NO_x emissions.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the RCO's;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, from all the RCO's, in tons; and
 - c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the RCO's, based on a rolling, 12-month summation of the monthly NO_x emissions.
5. The permittee shall maintain monthly records that document any time periods when the "interlock system" associated with the RCO failed to operate in accordance with the requirements in sections A.II.4. of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
6. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:

- a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the duct burners; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for all the duct burners.
2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
- a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the RCO's; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for the RCO's.
3. The permittee shall submit deviation (excursion) reports which identify any time periods the "interlock system" associated with the RCO did not operate in compliance with the requirements specified in section A.II.4.
4. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
5. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A; for PE, Method 5 of 40 CFR Part 60, Appendix A; for NO_x, Method 7 of 40 CFR Part 60, Appendix A; for CO, Method 10 of 40 CFR Part 60, Appendix A.
 - d. The test shall be conducted while the emissions unit is operating at its maximum capacity,

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unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 13.61 tons NO_x per rolling 12-month period from the duct burner for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.
 - b. Emission Limitation: 6.93 tons NO_x per rolling 12-month period from the RCO for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.
 - c. Emission Limitation: 2.27 lbs NO_x/hr, 9.94 tons NO_x/yr

Applicable Compliance Method: The lb/hr NO_x emission was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of

Emissions Unit ID: P412

the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 2.1 lb CO/hr, 9.2 tons CO/yr

Applicable Compliance Method: The lb/hr CO emission rate was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 0.41 lb VOC/hr, 1.8 tons VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 1.2 lbs PE/hr, 5.26 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown

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with the annual limitation.

- g. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

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>
P412 - Castline (aluminum pouring, cooling, cleaning, & sand shakeout) with RCO and duct burner - Cell#2		
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

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Emissions Unit ID: P412

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

NONE

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Emissions Unit ID: P413

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>
P413 - Castline (aluminum pouring, cooling, cleaning, & sand shakeout) with RCO and duct burner - Cell#3	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20) OAC rule 3745-31-05(D)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(A)

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Applicable Emissions Limitations/Control Measures	tons VOC/yr
control requirements (see A.I.2.a)	1.2 lbs particulate emissions (PE)/hr, 5.26 tons PE/yr
Duct Burner emissions:	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
13.61 tons nitrogen oxide (NO _x) per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	20% opacity as a six-minute average, except as provided by rule
Regenerative Catalytic Oxidizer (RCO) emissions:	
6.93 tons NO _x per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	
The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20) and OAC rule 3745-17-07(A).	
Use of baghouse	
2.27 lbs NO _x /hr, 9.94 tons NO _x /yr	
2.1 lbs carbon monoxide (CO)/hr, 9.2 tons CO/yr	
0.41 lbs volatile organic compounds (VOC)/hr, 1.8	

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions.
- i. use of duct burner equipped with low NO_x burners and designed to emit NO_x at a rate of 80 lb/mmCf of natural gas burned.
 - ii. use of RCO equipped with low NO_x burners and designed to emit NO_x at a rate of 110 lb/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from the duct burners on emissions units P411, P412, P413 and P414 shall not exceed 13.61 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1). Combined annual NO_x emissions from the RCO on emissions units P411, P412, P413 and P414 shall not exceed 6.93 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.2).
- 2.c** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage on the duct burners for emissions units P411, P412, P413 and P414 shall not exceed 340.2 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table for the duct burners for emissions units P411, P412, P413 and P414:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	28
1-2	57
1-3	85
1-4	114

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1-5	142
1-6	170
1-7	199
1-8	227
1-9	256
1-10	284
1-11	312
1-12	340.2

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

- The maximum annual natural gas usage on the RCO for emissions units P411, P412, P413 and P414 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels, for the RCO's for emissions units P411, P412, P413 and P414, specified in the following table:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

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

- The temperature of the catalyst bed, in the RCO SHALL not be less than 650 degrees Fahrenheit when the emissions unit is in operation.
- To ensure proper operation of the emissions unit, the permittee shall employ a "interlock system"

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that only allows operation of the emissions unit when the catalytic bed temperature in the RCO is in compliance with the operational restriction in section A.II.3. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.3 are operational (i.e. temperature monitor failure will shutdown the operation).

5. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all duct burners, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the duct burners; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the duct burners, based on a rolling, 12-month summation of the monthly natural gas usage.
2. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all RCO's, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the RCO's; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the RCO's, based on a rolling, 12-month summation of the monthly natural gas usage.
3. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the duct burners;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative

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- monthly NO_x emission rate, from all the duct burners, in tons; and
- c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the duct burners, based on a rolling, 12-month summation of the monthly NO_x emissions.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the RCO's;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, from all the RCO's, in tons; and
 - c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the RCO's, based on a rolling, 12-month summation of the monthly NO_x emissions.
 5. The permittee shall maintain monthly records that document any time periods when the "interlock system" associated with the RCO failed to operate in accordance with the requirements in sections A.II.4. of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
 6. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the duct burners; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for all the duct burners.

Issued

Emissions Unit ID: P413

2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the RCO's; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for the RCO's.
3. The permittee shall submit deviation (excursion) reports which identify any time periods the "interlock system" associated with the RCO did not operate in compliance with the requirements specified in section A.II.4.
4. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
5. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A; for PE, Method 5 of 40 CFR Part 60, Appendix A; for NO_x, Method 7 of 40 CFR Part 60, Appendix A; for CO, Method 10 of 40 CFR Part 60, Appendix A.
 - d. The test 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.
2. 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

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation: 13.61 tons NO_x per rolling 12-month period from the duct burner for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

- b. Emission Limitation: 6.93 tons NO_x per rolling 12-month period from the RCO for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

- c. Emission Limitation: 2.27 lbs NO_x/hr, 9.94 tons NO_x/yr

Applicable Compliance Method: The lb/hr NO_x emission was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore,

Emissions Unit ID: P413

provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 2.1 lb CO/hr, 9.2 tons CO/yr

Applicable Compliance Method: The lb/hr CO emission rate was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 0.41 lb VOC/hr, 1.8 tons VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 1.2 lbs PE/hr, 5.26 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

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GM Powertrain Group, Defiance Plant

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Facility ID: 0320010001

Emissions Unit ID: P413

NONE

GM P

PTI A

Emissions Unit ID: P413

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>
P413 - Castline (aluminum pouring, cooling, cleaning, & sand shakeout) with RCO and duct burner - Cell#3 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

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GM P

PTI A

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Emissions Unit ID: P413

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

NONE

GM P
PTI A

Emissions Unit ID: P414

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>
P414 - Castline (aluminum pouring, cooling, cleaning, & sand shakeout) with RCO and duct burner - Cell#4	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20) OAC rule 3745-31-05(D)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-17-11(B)
	OAC rule 3745-17-07(A)
	OAC rule 3745-31-05(A)

GMP

PTIA

Emissions Unit ID: P414

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Applicable Emissions <u>Limitations/Control</u> <u>Measures</u>	tons VOC/yr
control requirements (see A.I.2.a)	1.2 lbs particulate emissions (PE)/hr, 5.26 tons PE/yr
Duct Burner emissions: 13.61 tons nitrogen oxide (NO _x) per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). 20% opacity as a six-minute average, except as provided by rule
Regenerative Catalytic Oxidizer (RCO) emissions: 6.93 tons NO _x per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	
The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20) and OAC rule 3745-17-07(A).	
Use of baghouse	
2.27 lbs NO _x /hr, 9.94 tons NO _x /yr	
2.1 lbs carbon monoxide (CO)/hr, 9.2 tons CO/yr	
0.41 lbs volatile organic compounds (VOC)/hr, 1.8	

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions.
- i. use of duct burner equipped with low NO_x burners and designed to emit NO_x at a rate of 80 lb/mmCf of natural gas burned.
 - ii. use of RCO equipped with low NO_x burners and designed to emit NO_x at a rate of 110 lb/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from the duct burners on emissions units P411, P412, P413 and P414 shall not exceed 13.61 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1). Combined annual NO_x emissions from the RCO on emissions units P411, P412, P413 and P414 shall not exceed 6.93 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.2).
- 2.c** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage on the duct burners for emissions units P411, P412, P413 and P414 shall not exceed 340.2 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels specified in the following table for the duct burners for emissions units P411, P412, P413 and P414:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	28
1-2	57
1-3	85
1-4	114

GM Powertrain Group, Defiance Plant

PTI Application: 03-12264

Issued**Facility ID: 0320010001**

Emissions Unit ID: P414

1-5	142
1-6	170
1-7	199
1-8	227
1-9	256
1-10	284
1-11	312
1-12	340.2

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

- The maximum annual natural gas usage on the RCO for emissions units P411, P412, P413 and P414 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the natural gas usage levels, for the RCO's for emissions units P411, P412, P413 and P414, specified in the following table:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

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

- The temperature of the catalyst bed, in the RCO SHALL not be less than 650 degrees Fahrenheit when the emissions unit is in operation.
- To ensure proper operation of the emissions unit, the permittee shall employ a "interlock system"

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that only allows operation of the emissions unit when the catalytic bed temperature in the RCO is in compliance with the operational restriction in section A.II.3. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.3 are operational (i.e. temperature monitor failure will shutdown the operation).

5. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all duct burners, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the duct burners; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the duct burners, based on a rolling, 12-month summation of the monthly natural gas usage.
2. The permittee shall maintain monthly records of the following information for emissions units P411, P412, P413 and P414, combined:
 - a. the quantity of natural gas combusted in all RCO's, in mmCf;
 - b. for the first 12 months of operations under the provisions of this permit, the cumulative monthly natural gas usage in the RCO's; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage in the RCO's, based on a rolling, 12-month summation of the monthly natural gas usage.
3. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the duct burners;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative

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- monthly NO_x emission rate, from all the duct burners, in tons; and
- c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the duct burners, based on a rolling, 12-month summation of the monthly NO_x emissions.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P411, P412, P413 and P414, combined:
 - a. the calculated NO_x emission rate, in tons per month, for all the RCO's;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, from all the RCO's, in tons; and
 - c. after the first 12 months of operation, under the provisions of this permit, the annual NO_x emission rate, from all the RCO's, based on a rolling, 12-month summation of the monthly NO_x emissions.
 5. The permittee shall maintain monthly records that document any time periods when the "interlock system" associated with the RCO failed to operate in accordance with the requirements in sections A.II.4. of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
 6. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the duct burners; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for all the duct burners.

Issued

Emissions Unit ID: P414

2. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage, for all the RCO's; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period, for the RCO's.
3. The permittee shall submit deviation (excursion) reports which identify any time periods the "interlock system" associated with the RCO did not operate in compliance with the requirements specified in section A.II.4.
4. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
5. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Method 25A of 40 CFR Part 60, Appendix A; for PE, Method 5 of 40 CFR Part 60, Appendix A; for NO_x, Method 7 of 40 CFR Part 60, Appendix A; for CO, Method 10 of 40 CFR Part 60, Appendix A.
 - d. The test 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.
2. 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

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation: 13.61 tons NO_x per rolling 12-month period from the duct burner for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

- b. Emission Limitation: 6.93 tons NO_x per rolling 12-month period from the RCO for emissions units P411, P412, P413 and P414, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

- c. Emission Limitation: 2.27 lbs NO_x/hr, 9.94 tons NO_x/yr

Applicable Compliance Method: The lb/hr NO_x emission was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore,

Emissions Unit ID: P414

provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 2.1 lb CO/hr, 9.2 tons CO/yr

Applicable Compliance Method: The lb/hr CO emission rate was determined by adding the lb/hr emissions from the RCO and duct burner. Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 0.41 lb VOC/hr, 1.8 tons VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 1.2 lbs PE/hr, 5.26 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

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GM Powertrain Group, Defiance Plant

PTI Application: 02 13364

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Facility ID: 0320010001

Emissions Unit ID: P414

NONE

GM P

PTI A

Emissions Unit ID: P414

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>
P412 - Castline (aluminum pouring, cooling, cleaning, & sand shakeout) with RCO and duct burner - Cell#4 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

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GM P

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P414

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P415

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P415 - Sand Silo (pneumatic conveyance/storage system) - Cell #1	OAC rule 3745-31-05(D)	0.008 tons particulate emissions (PE) per rolling 12-month period based upon sand throughput restrictions (see A.I.2.a)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-11(B)	0.02 lb PE/hr, 0.008 tons PE/year
	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). visible PE shall not exceed 20% opacity as a six-minute average, except as provided by rule

2. Additional Terms and Conditions

- 2.a** Combined annual PE emissions from emissions units P415, P416, P417 and P418 shall not exceed 0.008 tons/yr, based upon a rolling, 12-month restriction of sand throughput (see A.II.1).
- 2.b** All PE is assumed to be in the form of PM₁₀.

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GM P

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P415

GMP

PTI A

Emissions Unit ID: P415

Issued: To be entered upon final issuance**II. Operational Restrictions**

1. The maximum annual sand throughput for emissions units P415, P416, P417 and P418 shall not exceed 18,922 tons/yr, combined, based on a rolling 12-month summation of sand throughput.

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

<u>Month(s)</u>	<u>Maximum Cumulative Sand Throughput (tons)</u>
1	1577
1-2	3154
1-3	4731
1-4	6308
1-5	7885
1-6	9462
1-7	11,039
1-8	12,616
1-9	14,193
1-10	15,770
1-11	17,347
1-12	18,922

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P415, P416, P417 and P418, combined:
 - a. the quantity of sand throughput, in tons;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly sand throughput; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual sand throughput, based on a rolling, 12-month summation of the monthly sand throughput.
2. In addition to the above information, the permittee shall also record the following information

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each month for emissions units P415, P416, P417 and P418, combined:

- a. the calculated PE emission rate, in tons per month;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly PE emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual PE emission rate, in tons, based on a rolling, 12-month summation of the monthly PE emissions.
3. The permittee shall perform checks when new sand is delivered, for any visible particulate emissions for the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative sand throughput; and
 - b. the annual sand throughput restriction and emission limitation per rolling 12-month period.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month period.

V. Testing Requirements

Issued: To be entered upon final issuance

1. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 0.008 tons PE per rolling 12-month period for emissions units P415, P416, P417 and P418, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.2.
 - b. Emission Limitation: 0.02 lbs PE/hr, 0.008 tons PE/yr

Applicable Compliance Method: The hourly emission limitation represents the emission unit's potential to emit based on a maximum outlet concentration 0.005 gr/dscf and a maximum volumetric air flow rate of 500 cfm.

Compliance with the tons/year PE limitation shall be demonstrated through compliance with the rolling 12-month emission limitation.
 - c. Emission Limitation: 20 % opacity as a six-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P415

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>
P415 - Sand Silo - Cell #1 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

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Facility ID: 0320010001

Emissions Unit ID: P415

NONE

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P416 - Sand Silo (pneumatic material conveyance/storage system) - Cell #2	OAC rule 3745-31-05(D)	0.008 tons particulate emissions (PE) per rolling 12-month period based upon sand delivery restrictions (see A.I.2.a)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-11(B)	0.02 lb PE/hr, 0.008 tons PE/year The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	visible PE's shall not exceed 20% opacity as a six-minute average, except as provided by rule

2. Additional Terms and Conditions

- 2.a Combined annual PE emissions from emissions units P415, P416, P417 and P418 shall not exceed 0.008 tons/yr, based upon a rolling, 12-month restriction of sand delivery (see A.II.1).
- 2.b All PE is assumed to be in the form of PM₁₀.

Issued: To be entered upon final issuance

II. Operational Restrictions

1. The maximum annual sand delivered for emissions units P415, P416, P417 and P418 shall not exceed 18,922 tons/yr, combined, based on a rolling 12-month summation of sand delivered..

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

<u>Month(s)</u>	<u>Maximum Cumulative Sand Throughput (tons)</u>
1	1577
1-2	3154
1-3	4731
1-4	6308
1-5	7885
1-6	9462
1-7	11,039
1-8	12,616
1-9	14,193
1-10	15,770
1-11	17,347
1-12	18,922

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P415, P416, P417 and P418, combined:
 - a. the quantity of sand delivered, in tons;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly sand delivered; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual sand delivered, based on a rolling, 12-month summation of the monthly sand delivered.

Issued: To be entered upon final issuance

2. The permittee shall perform checks when new sand is delivered , for any visible particulate emissions for the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative sand delivery rate; and
 - b. the annual sand delivery restriction and emission limitation per rolling 12-month period.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month period.

V. Testing Requirements

1. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 0.008 tons PE per rolling 12-month period for emissions units P415, P416, P417 and P418, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation

Emissions Unit ID: P416

shall be demonstrated by the recordkeeping requirements specified in sections A.III.1.

- b. Emission Limitation: 0.02 lbs PE/hr, 0.008 tons/yr

Applicable Compliance Method: The hourly emission limitation was developed by using the duct collection device emission standard of 0.005 gr/dscf and a maximum volumetric air flow rate of 500 cfm.

Compliance with the tons/year PE limitation shall be demonstrated through compliance with the rolling 12-month emission limitation.

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GM P

PTI A

Emissions Unit ID: P416

Issued: To be entered upon final issuance

c. Emission Limitation: 20 % opacity as a six-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P416

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>
P416 - Sand Silo - Cell #2		
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

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GM P

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P416

NONE

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P417 - Sand Silo (pneumatic material conveyance/storage system) - Cell #3	OAC rule 3745-31-05(D)	0.008 tons particulate emissions (PE) per rolling 12-month period based upon sand delivery restrictions (see A.I.2.a)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-11(B)	0.02 lb PE/hr, 0.008 tons PE/year
	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). visible PE's shall not exceed 20% opacity as a six-minute average, except as provided by rule

2. Additional Terms and Conditions

- 2.a Combined annual PE emissions from emissions units P415, P416, P417 and P418 shall not exceed 0.008 tons/yr, based upon a rolling, 12-month restriction of sand delivery (see A.II.1).
- 2.b All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual sand delivered for emissions units P415, P416, P417 and P418 shall not exceed 18,922 tons/yr, combined, based on a rolling 12-month summation of sand delivered..

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

<u>Month(s)</u>	<u>Maximum Cumulative Sand Throughput (tons)</u>
1	1577
1-2	3154
1-3	4731
1-4	6308
1-5	7885
1-6	9462
1-7	11,039
1-8	12,616
1-9	14,193
1-10	15,770
1-11	17,347
1-12	18,922

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P415, P416, P417 and P418, combined:
 - a. the quantity of sand delivered, in tons;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly sand delivered; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual sand delivered, based on a rolling, 12-month summation of the monthly sand delivered.
2. The permittee shall perform checks when new sand is delivered, for any visible particulate emissions for the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall

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note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative sand delivery rate; and
 - b. the annual sand delivery restriction and emission limitation per rolling 12-month period.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month period.

V. Testing Requirements

1. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 0.008 tons PE per rolling 12-month period for emissions units P415, P416, P417 and P418, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.1.
 - b. Emission Limitation: 0.02 lbs PE/hr, 0.008 tons PE/yr

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GM P

PTI A

Emissions Unit ID: P417

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Applicable Compliance Method: The hourly emission limitation was developed by using the duct collection device emission standard of 0.005 gr/dscf and a maximum volumetric air flow rate of 500 cfm.

Compliance with the tons/year PE limitation shall be demonstrated through compliance with the rolling 12-month emission limitation.

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Facility ID: 0320010001

Emissions Unit ID: P417

- c. Emission Limitation: 20 % opacity as a six-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P417

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>
P417 - Sand Silo - Cell #3 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

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GM P

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P417

NONE

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>	<u>Applicable Emissions Limitations/Control Measures</u>
P418 - Sand Silo (pneumatic material conveyance/storage system) - Cell #4	OAC rule 3745-31-05(D)	0.008 tons particulate emissions (PE) per rolling 12-month period based upon sand delivery restrictions (see A.I.2.a)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-11(B)	0.02 lb PE/hr, 0.008 tons PE/year
	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). visible PE's shall not exceed 20% opacity as a six-minute average, except as provided by rule

2. Additional Terms and Conditions

- 2.a Combined annual PE emissions from emissions units P415, P416, P417 and P418 shall not exceed 0.008 tons/yr, based upon a rolling, 12-month restriction of sand delivery (see A.II.1).
- 2.b All PE is assumed to be in the form of PM₁₀.

Issued: To be entered upon final issuance

II. Operational Restrictions

1. The maximum annual sand delivered for emissions units P415, P416, P417 and P418 shall not exceed 18,922 tons/yr, combined, based on a rolling 12-month summation of sand delivered..

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

<u>Month(s)</u>	<u>Maximum Cumulative Sand Throughput (tons)</u>
1	1577
1-2	3154
1-3	4731
1-4	6308
1-5	7885
1-6	9462
1-7	11,039
1-8	12,616
1-9	14,193
1-10	15,770
1-11	17,347
1-12	18,922

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P415, P416, P417 and P418, combined:
 - a. the quantity of sand delivered, in tons;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly sand delivered; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual sand delivered, based on a rolling, 12-month summation of the monthly sand delivered.

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Emissions Unit ID: P418

2. The permittee shall perform checks when new sand is delivered, for any visible particulate emissions for the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative sand delivery rate; and
 - b. the annual sand delivery restriction and emission limitation per rolling 12-month period.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month period.

V. Testing Requirements

1. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 0.008 tons PE per rolling 12-month period for emissions units P415, P416, P417 and P418, combined

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.1.
 - b. Emission Limitation: 0.02 lbs PE/hr, 0.008 tons PE/yr

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GM P

PTI A

Emissions Unit ID: P418

Issued: To be entered upon final issuance

Applicable Compliance Method: The hourly emission limitation was developed by using the duct collection device emission standard of 0.005 gr/dscf and a maximum volumetric air flow rate of 500 cfm.

Compliance with the tons/year PE limitation shall be demonstrated through compliance with the rolling 12-month emission limitation.

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GM P

PTI A

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c. Emission Limitation: 20 % opacity as a six-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P418

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>
P418 - Sand Silo - Cell #4 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

VI. Miscellaneous Requirements

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GM P

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P418

NONE

GM P

PTI A

Emissions Unit ID: P419

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>	
P419 - Sand Reclaim Furnace - Cell #1	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)	OAC rule 3745-17-11(B)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)	OAC rule 3745-17-07(A)

Issued

Emissions Unit ID: P419

Applicable Emissions
Limitations/Control
Measures

control requirements (see
A.2.a)

6.3 tons nitrogen oxides
(NOx)/yr (combustion
emissions) per rolling
12-month period based on
natural gas usage restrictions
(see A.I.2.b)

The requirements of this rule
also include compliance with
the requirements of 40 CFR
Part 52.21/OAC rule
3745-31-(10-20) OAC rule
3745-17-07(A).

Use of baghouse and VOC
destruction associated with
minimum furnace
temperature (see A.II.1).

0.6 lbs NOx/hr, 2.63 tons
NOx/yr

0.5 lbs carbon monoxide
(CO)/hr, 2.19 tons CO/yr

0.13 lb volatile organic
compounds (VOC)/hr, 0.57
ton VOC/yr (process
emissions) (See A.I.2.c)

1.08 lbs particulate emissions
(PE)/hr, 4.73 tons PE/yr
(process emissions)(See
A.I.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).

Visible PE shall not exceed 20%
opacity as a six minute average,
except as provided by rule

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i. furnace equipped with low NO_x burners and designed to emit NO_x at a rate of 100 lbs/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P419, P420, P421, and P422 shall not exceed 6.3 tons/yr based upon a rolling, 12-month summation of natural gas usage. (see A.II.4)
- 2.c** The 0.13 lbs VOC/hr and 1.08 lbs PE/hr emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.d** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The permittee shall maintain the sand reclaim furnace at a minimum temperature of 1000 degrees Fahrenheit while in operation.
2. To ensure proper operation of the emissions unit, the permittee shall employ an "interlock system" that only allows operation of the emissions unit when the minimum temperature is in compliance with the operational restriction in section A.II.1. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.1 are operational (i.e. temperature monitor failure will shutdown the emissions units operation).
3. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8.0 inches of water while the emissions unit is in operation.
4. The maximum annual natural gas usage for emissions units P419, P420, P421, and P422 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

Issued: To be entered upon final issuance

To ensure enforceability during the first 12 calendar months of operation under the provisions 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	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records that document any time periods when the "interlock system" failed to operate in accordance with the requirements in Section A.II.2 of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.
3. The permittee shall maintain monthly records of the following information for emissions units P419, P420, P421 and P422, combined:
 - a. the quantity of natural gas combusted, in mmCf;

- b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P419, P420, P421 and P422, combined:
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual NO_x emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any time period the "interlock system" did not operate in accordance with the requirements specified in Section A.II.2.
2. The permittee shall submit pressure drop deviation (excursion) reports identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.
4. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

Issued: To be entered upon final issuance

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Methods 1-4 and either 18, 25 or 25A of 40 CFR Part 60, Appendix A; for PE, Methods 1-5 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.
 - d. The test 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.
 - e. 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 include in the report the operating parameters as required in (V)(1)(c) above.

2. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation: 6.3 tons NO_x per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.4.

- b. Emission Limitation: 0.6 lbs NO_x/hr, 2.63 tons NO_x/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 0.5 lb CO/hr, 2.19 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 0.13 lb VOC/hr, 0.57 ton VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

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- e. Emission Limitation: 1.08 lbs PE/hr, 4.73 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

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GM P

PTI A

Emissions Unit ID: P419

Issued: To be entered upon final issuance

f. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P419

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>
P419 - Sand Reclaim Furnace - Cell #1 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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GM Powertrain Group, Defiance Plant

PTI Application: 02 12264

Issued

Facility ID: 0320010001

Emissions Unit ID: P419

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P420

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>	
P420 - Sand Reclaim Furnace - Cell #2	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)	OAC rule 3745-17-11(B)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)	OAC rule 3745-17-07(A)

GM P

PTI A

Emissions Unit ID: P420

Issued: To be entered upon final issuance

Applicable Emissions Limitations/Control Measures	A.I.2.d)
control requirements (see A.2.a)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
6.3 tons nitrogen oxides (NO _x)/yr (combustion emissions) per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	Visible PE shall not exceed 20% opacity as a six minute average, except as provided by rule
The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20) OAC rule 3745-17-07(A).	
Use of baghouse and VOC destruction associated with minimum furnace temperature (see A.II.1).	
0.6 lbs NO _x /hr, 2.63 tons NO _x /yr	
0.5 lbs carbon monoxide (CO)/hr, 2.19 tons CO/yr	
0.13 lb volatile organic compounds (VOC)/hr, 0.57 ton VOC/yr (process emissions) (See A.I.2.c)	
1.08 lbs particulate emissions (PE)/hr, 4.73 tons PE/yr (process emissions)(See	

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i. furnace equipped with low NO_x burners and designed to emit NO_x at a rate of 100 lbs/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P419, P420, P421, and P422 shall not exceed 6.3 tons/yr based upon a rolling, 12-month summation of natural gas usage. (see A.II.4)
- 2.c** The 0.13 lbs VOC/hr and 1.08 lbs PE/hr emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.d** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The permittee shall maintain the sand reclaim furnace at a minimum temperature of 1000 degrees Fahrenheit while in operation.
2. To ensure proper operation of the emissions unit, the permittee shall employ an "interlock system" that only allows operation of the emissions unit when the minimum temperature is in compliance with the operational restriction in section A.II.1. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.1 are operational (i.e. temperature monitor failure will shutdown the emissions units operation).
3. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8.0 inches of water while the emissions unit is in operation.
4. The maximum annual natural gas usage for emissions units P419, P420, P421, and P422 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions 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	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records that document any time periods when the "interlock system" failed to operate in accordance with the requirements in Section A.II.2 of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.
3. The permittee shall maintain monthly records of the following information for emissions units P419, P420, P421 and P422, combined:
 - a. the quantity of natural gas combusted, in mmCf;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and

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- c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P419, P420, P421 and P422, combined:
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual NO_x emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any time period the "interlock system" did not operate in accordance with the requirements specified in Section A.II.2.
2. The permittee shall submit pressure drop deviation (excursion) reports identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.
4. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

Issued: To be entered upon final issuance

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Methods 1-4 and either 18, 25 or 25A of 40 CFR Part 60, Appendix A; for PE, Methods 1-5 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.
 - d. The test 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.
2. 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 include in the report the operating parameters as required in (V)(1)(c) above.

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 6.3 tons NO_x per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.4.

- b. Emission Limitation: 0.6 lbs NO_x/hr, 2.63 tons NO_x/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 0.5 lb CO/hr, 2.19 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 0.13 lb VOC/hr, 0.57 ton VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 1.08 lbs PE/hr, 4.73 tons PE/yr

GM Powertrain Group, Defiance Plant**PTI Application: 03-13364****Issued****Facility ID: 0320010001**

Emissions Unit ID: P420

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

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PTI A

Emissions Unit ID: P420

Issued: To be entered upon final issuance

f. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

GM P
PTI A

Emissions Unit ID: P420

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>
P420 - Sand Reclaim Furnace - Cell #2 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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Issued: To be entered upon final issuance

VI. Miscellaneous Requirements

Emissions Unit ID: P420

NONE

GM P

PTI A

Emissions Unit ID: P421

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>	
P421 - Sand Reclaim Furnace - Cell #3	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)	OAC rule 3745-17-11(B)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)	OAC rule 3745-17-07(A)

GM P

PTI A

Emissions Unit ID: P421

Issued: To be entered upon final issuance

Applicable Emissions Limitations/Control Measures	A.I.2.d)
control requirements (see A.2.a)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
6.3 tons nitrogen oxides (NO _x)/yr (combustion emissions) per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	Visible PE shall not exceed 20% opacity as a six minute average, except as provided by rule
The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20) OAC rule 3745-17-07(A).	
Use of baghouse and VOC destruction associated with minimum furnace temperature (see A.II.1).	
0.6 lbs NO _x /hr, 2.63 tons NO _x /yr	
0.5 lbs carbon monoxide (CO)/hr, 2.19 tons CO/yr	
0.13 lb volatile organic compounds (VOC)/hr, 0.57 ton VOC/yr (process emissions) (See A.I.2.c)	
1.08 lbs particulate emissions (PE)/hr, 4.73 tons PE/yr (process emissions)(See	

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i. furnace equipped with low NO_x burners and designed to emit NO_x at a rate of 100 lbs/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P419, P420, P421, and P422 shall not exceed 6.3 tons/yr based upon a rolling, 12-month summation of natural gas usage. (see A.II.4)
- 2.c** The 0.13 lbs VOC/hr and 1.08 lbs PE/hr emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.d** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The permittee shall maintain the sand reclaim furnace at a minimum temperature of 1000 degrees Fahrenheit while in operation.
2. To ensure proper operation of the emissions unit, the permittee shall employ an "interlock system" that only allows operation of the emissions unit when the minimum temperature is in compliance with the operational restriction in section A.II.1. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.1 are operational (i.e. temperature monitor failure will shutdown the emissions units operation).
3. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8.0 inches of water while the emissions unit is in operation.
4. The maximum annual natural gas usage for emissions units P419, P420, P421, and P422 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions 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	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records that document any time periods when the "interlock system" failed to operate in accordance with the requirements in Section A.II.2 of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.
3. The permittee shall maintain monthly records of the following information for emissions units P419, P420, P421 and P422, combined:
 - a. the quantity of natural gas combusted, in mmCf;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and

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- c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P419, P420, P421 and P422, combined:
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual NO_x emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any time period the "interlock system" did not operate in accordance with the requirements specified in Section A.II.2.
2. The permittee shall submit pressure drop deviation (excursion) reports identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.
4. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Methods 1-4 and either 18, 25 or 25A of 40 CFR Part 60, Appendix A; for PE, Methods 1-5 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.
 - d. The test 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.
 - e. 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 include in the report the operating parameters as required in (V)(1)(c) above.

5. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 6.3 tons NO_x per rolling 12-month period

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Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.4.

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- b. Emission Limitation: 0.6 lbs NO_x/hr, 2.63 tons NO_x/yr

Applicable Compliance Method:

Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 0.5 lb CO/hr, 2.19 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 0.13 lb VOC/hr, 0.57 ton VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 1.08 lbs PE/hr, 4.73 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined

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through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

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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>
P421 - Sand Reclaim Furnace - Cell #3 [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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VI. Miscellaneous Requirements

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NONE

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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>	
P422 - Sand Reclaim Furnace - Cell #4	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)	OAC rule 3745-17-11(B)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)	OAC rule 3745-17-07(A)

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Applicable Emissions Limitations/Control Measures	A.I.2.d)
control requirements (see A.2.a)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
6.3 tons nitrogen oxides (NOx)/yr (combustion emissions) per rolling 12-month period based on natural gas usage restrictions (see A.I.2.b)	Visible PE shall not exceed 20% opacity as a six minute average, except as provided by rule
The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20) OAC rule 3745-17-07(A).	
Use of baghouse and VOC destruction associated with minimum furnace temperature (see A.II.1).	
0.6 lbs NOx/hr, 2.63 tons NOx/yr	
0.5 lbs carbon monoxide (CO)/hr, 2.19 tons CO/yr	
0.13 lb volatile organic compounds (VOC)/hr, 0.57 ton VOC/yr (process emissions) (See A.I.2.c)	
1.08 lbs particulate emissions (PE)/hr, 4.73 tons PE/yr (process emissions)(See	

2. Additional Terms and Conditions

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i. furnace equipped with low NO_x burners and designed to emit NO_x at a rate of 100 lbs/mmCf of natural gas burned.
- 2.b** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P419, P420, P421, and P422 shall not exceed 6.3 tons/yr based upon a rolling, 12-month summation of natural gas usage. (see A.II.4)
- 2.c** The 0.13 lbs VOC/hr and 1.08 lbs PE/hr emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.d** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The permittee shall maintain the sand reclaim furnace at a minimum temperature of 1000 degrees Fahrenheit while in operation.
2. To ensure proper operation of the emissions unit, the permittee shall employ an "interlock system" that only allows operation of the emissions unit when the minimum temperature is in compliance with the operational restriction in section A.II.1. The "interlock system" shall only allow operation of the emissions unit when the monitoring devices associated with the operational restriction in section A.II.1 are operational (i.e. temperature monitor failure will shutdown the emissions units operation).
3. The pressure drop across the baghouse shall be maintained within the range of 0.5 - 8.0 inches of water while the emissions unit is in operation.
4. The maximum annual natural gas usage for emissions units P419, P420, P421, and P422 shall not exceed 126 mmCf/yr, combined, based upon a rolling, 12-month summation of natural gas usage.

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

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table:

<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	10.5
1-2	21.0
1-3	31.5
1-4	42.0
1-5	52.5
1-6	63.0
1-7	73.5
1-8	84.0
1-9	94.5
1-10	105.0
1-11	115.5
1-12	126.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records that document any time periods when the "interlock system" failed to operate in accordance with the requirements in Section A.II.2 of this permit. The "interlock system" shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.
3. The permittee shall maintain monthly records of the following information for emissions units P419, P420, P421 and P422, combined:
 - a. the quantity of natural gas combusted, in mmCf;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and

- c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.
4. In addition to the above information, the permittee shall also record the following information each month for emissions units P419, P420, P421 and P422, combined:
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly NO_x emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual NO_x emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any time period the "interlock system" did not operate in accordance with the requirements specified in Section A.II.2.
2. The permittee shall submit pressure drop deviation (excursion) reports identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.
4. The deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing in accordance with the following requirements:

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- a. The emissions testing shall be conducted within 6 months after start-up of this emissions unit.
- b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, VOC and PE.
- c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for VOC, Methods 1-4 and either 18, 25 or 25A of 40 CFR Part 60, Appendix A; for PE, Methods 1-5 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.
- d. The test 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.
- e. 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 include in the report the operating parameters as required in (V)(1)(c) above.

2. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation: 6.3 tons NO_x per rolling 12-month period

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Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in section A.III.4.

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- b. Emission Limitation: 0.6 lbs NO_x/hr, 2.63 tons NO_x/yr

Applicable Compliance Method:

Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated by the monitoring and recordkeeping requirements in section III and through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation: 0.5 lb CO/hr, 2.19 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 0.13 lb VOC/hr, 0.57 ton VOC/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- f. Emission Limitation: 1.08 lbs PE/hr, 4.73 tons PE/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined

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through the testing required in sections A.V.1 and 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 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- g. Emission Limitation: 20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method: OAC rule 3745-17-03(B)(1)

VI. Miscellaneous Requirements

NONE

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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>
P422 - Sand Reclaim Furnace - Cell #4		
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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VI. Miscellaneous Requirements

NONE

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-17-07(A)
P423 - Receiving Furnace #1 (R1-2)	40 CFR Part 52.21 OAC rule 3745-31-(10-20)	
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-11(B)

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Applicable Emissions

Limitations/Control

Measures

control requirements (see
A.I.2.a)

9.18 tons NO_x per rolling
12-month period based upon
natural gas usage restrictions
(see A.I.2.d)

The requirements of this rule
also include compliance with
the requirements of 40 CFR
Part 52.21/OAC rule
3745-31-(10-20).

0.82 lb NO_x/hr, 3.59 tons
NO_x/yr

0.81 lb carbon monoxide
(CO)/hr,
3.55 tons CO/yr

24.45 lbs particulate
emissions (PE)/day, 4.46
tons PE/yr (holding, fluxing,
& drossing)

2.5 lbs hydrogen fluoride
(HF)/hr, 0.5 ton HF/yr

None (see A.2.b).

None (see A.2.c).

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i furnaced designed with Low NO_x burners and designed to emit NO_x at a rate of 85 pounds NO_x/mmCf of natural gas burned.
- 2.b** The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), this emissions unit is exempt from the requirements of OAC rule 3745-17-11(B)(2).
- 2.c** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.
- 2.d** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P423, P424, P426, and P427 shall not exceed 9.18 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1).
- 2.e** The 0.82 lbs NO_x/hr and 0.81 lbs CO/hr emissions limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.f** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage for emissions units P423, P424, , P426, and P427 shall not exceed 216 mmCf, combined, based upon a rolling, 12-month summation of natural gas usage.

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

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<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	18.0
1-2	36.0
1-3	54.0
1-4	72.0
1-5	90.0
1-6	108.0
1-7	126.0
1-8	144.0
1-9	162.0
1-10	180.0
1-11	198.0
1-12	216.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P423, P424, P426, and P427 :
 - a. the quantity of natural gas combusted, in mmCf;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.

2. In addition to the above information, the permittee shall also record the following information each month for emissions units P423, P424, P426, and P427 :
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provision of this permit, the cumulative monthly NO_x emission rate, in tons; and

- c. after the first 12 months of operation under the provisions of this permit, the annual NO_x emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, and for PE by confirming company supplied emission rates for: holding (0.875 lbs PE/hr-holding), fluxing (1.545 lbs PE/hr-fluxing), and drossing (3.655 lbs PE/hr-drossing); see V.3.d..
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

The following test method shall be employed to confirm company supplied emission rates: for PE, Methods 1- 5 of 40 CFR Part 60, Appendix A.

Test Methods 1-5 shall be performed for each of the following operating conditions: i. holding, ii. fluxing, and iii. drossing.

- d. The test 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.
2. 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

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation: 9.18 tons NO_x per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

b. Emission Limitation: 0.82 lb NO_x/hr, 3.59 tons NO_x/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation: 0.81 lb CO/hr, 3.55 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission

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testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 24.45 lbs PE/day, 4.46 tons PE/yr

Applicable Compliance Method: The lb PE/day represents the potential to emit for this emissions unit based on the additive maximum pound/hr of the following operations and the maximum duration of the operation: holding (0.875 lb PE/hr, 22 hrs/day), fluxing (1.545 lb PE/hr, 1 hr/day) and dressing (3.655 lbs PE/hr, 1 hr/day). Compliance with the lb/hr limitations shall be determined through the testing required in sections A.V.1 and 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 365 days/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 2.5 lbs HF/hr, 0.5 ton HF/yr

Applicable Compliance Method: The lb HF/hr represents the potential to emit for this emissions unit determined by multiplying the maximum amount of cleaning flux (60 lbs) by the HF content of the fluxing agent (0.319 lb HF/lb flux) by the emission factor (0.13 lb HF emitted/lb HF).

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of once per day (24 hour period), 365 days/year and dividing by 2000 lbs/ton.

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P423

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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>
P423 - Receiving Furnace #1 (R1-2) [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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GM P

PTI A

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VI. Miscellaneous Requirements

Emissions Unit ID: P423

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>
P424 - Receiving Furnace #2 (R2-3)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)	control requirements (see A.I.2.a)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	9.18 tons NO _x per rolling 12-month period based upon natural gas usage restrictions (see A.I.2.d)
	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20).
		0.82 lb NO _x /hr, 3.59 tons NO _x /yr
		0.81 lb carbon monoxide (CO)/hr, 3.55 tons CO/yr
		24.45 lbs particulate emissions (PE)/day, 4.46 tons PE/yr (holding, fluxing, & drossing)
		2.5 lbs hydrogen fluoride (HF)/hr, 0.5 ton HF/yr
	OAC rule 3745-17-11(B)	None (see A.2.b).
	OAC rule 3745-17-07(A)	None (see A.2.c).

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

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i furnaced designed with Low NO_x burners and designed to emit NO_x at a rate of 85 pounds NO_x/mmCf of natural gas burned.
- 2.b** The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), this emissions unit is exempt from the requirements of OAC rule 3745-17-11(B)(2).
- 2.c** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.
- 2.d** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P423, P424, P426, and P427 shall not exceed 9.18 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1).
- 2.e** The 0.82 lbs NO_x/hr and 0.81 lbs CO/hr emissions limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.f** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage for emissions units P423, P424, , P426, and P427 shall not exceed 216 mmCf, combined, based upon a rolling, 12-month summation of natural gas usage.

To ensure enforceability during the first 12 calendar months of operation under the provisions 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>
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1	18.0
1-2	36.0
1-3	54.0
1-4	72.0
1-5	90.0
1-6	108.0
1-7	126.0
1-8	144.0
1-9	162.0
1-10	180.0
1-11	198.0
1-12	216.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P423, P424, P426, and P427 :
 - a. the quantity of natural gas combusted, in mmCf;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.

2. In addition to the above information, the permittee shall also record the following information each month for emissions units P423, P424, P426, and P427 :
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provision of this permit, the cumulative monthly NO_x emission rate, in tons; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual NO_x

emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, and for PE by confirming company supplied emission rates for: holding (0.875 lbs PE/hr-holding), fluxing (1.545 lbs PE/hr-fluxing), and drossing (3.655 lbs PE/hr-drossing); see V.3.d..
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

The following test method shall be employed to confirm company supplied emission rates: for PE, Methods 1- 5 of 40 CFR Part 60, Appendix A.

Test Methods 1-5 shall be performed for each of the following operating conditions: i. holding, ii. fluxing, and iii. drossing.

- d. The test 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.
2. 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

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation: 9.18 tons NO_x per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

b. Emission Limitation: 0.82 lb NO_x/hr, 3.59 tons NO_x/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation: 0.81 lb CO/hr, 3.55 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of

Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 24.45 lbs PE/day, 4.46 tons PE/yr

Applicable Compliance Method: The lb PE/day represents the potential to emit for this emissions unit based on the additive maximum pound/hr of the following operations and the maximum duration of the operation: holding (0.875 lb PE/hr, 22 hrs/day), fluxing (1.545 lb PE/hr, 1 hr/day) and dressing (3.655 lbs PE/hr, 1 hr/day). Compliance with the lb/hr limitations shall be determined through the testing required in sections A.V.1 and 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 365 days/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 2.5 lbs HF/hr, 0.5 ton HF/yr

Applicable Compliance Method: The lb HF/hr represents the potential to emit for this emissions unit determined by multiplying the maximum amount of cleaning flux (60 lbs) by the HF content of the fluxing agent (0.319 lb HF/lb flux) by the emission factor (0.13 lb HF emitted/lb HF).

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of once per day (24 hour period), 365 days/year and dividing by 2000 lbs/ton.

VI. Miscellaneous Requirements

NONE

GM P

PTI A

Emissions Unit ID: P424

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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>
P424 - Receiving Furnace #2 (R2-3) [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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GM P

PTI A

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VI. Miscellaneous Requirements

Emissions Unit ID: P424

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>
P426 - Holding Furnace #1 (H1-2)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)	control requirements (see A.I.2.a)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	9.18 tons NO _x per rolling 12-month period based upon natural gas usage restrictions (see A.I.2.d)
	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20).
		0.82 lb NO _x /hr, 3.59 tons NO _x /yr
		0.81 lb carbon monoxide (CO)/hr, 3.55 tons CO/yr
		24.45 lbs particulate emissions (PE)/day, 4.46 tons PE/yr (holding, fluxing, & drossing)
		2.5 lbs hydrogen fluoride (HF)/hr, 0.5 ton HF/yr
	OAC rule 3745-17-11(B)	None (see A.2.b).
	OAC rule 3745-17-07(A)	None (see A.2.c).

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2. Additional Terms and Conditions

- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i furnaced designed with Low NO_x burners and designed to emit NO_x at a rate of 85 pounds NO_x/mmCf of natural gas burned.
- 2.b** The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), this emissions unit is exempt from the requirements of OAC rule 3745-17-11(B)(2).
- 2.c** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.
- 2.d** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P423, P424, P426, and P427 shall not exceed 9.18 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1).
- 2.e** The 0.82 lbs NO_x/hr and 0.81 lbs CO/hr emissions limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.f** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage for emissions units P423, P424, P426, and P427 shall not exceed 216 mmCf, combined, based upon a rolling, 12-month summation of natural gas usage.

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

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<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	18.0
1-2	36.0
1-3	54.0
1-4	72.0
1-5	90.0
1-6	108.0
1-7	126.0
1-8	144.0
1-9	162.0
1-10	180.0
1-11	198.0
1-12	216.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P423, P424, P426, and P427 :
 - a. the quantity of natural gas combusted, in mmCf;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.

2. In addition to the above information, the permittee shall also record the following information each month for emissions units P423, P424, P426, and P427 :
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provision of this permit, the cumulative monthly NO_x emission rate, in tons; and

- c. after the first 12 months of operation under the provisions of this permit, the annual NO_x emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, and for PE by confirming company supplied emission rates for: holding (0.875 lbs PE/hr-holding), fluxing (1.545 lbs PE/hr-fluxing), and drossing (3.655 lbs PE/hr-drossing); see V.3.d..
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

The following test method shall be employed to confirm company supplied emission rates: for PE, Methods 1- 5 of 40 CFR Part 60, Appendix A.

Test Methods 1-5 shall be performed for each of the following operating conditions: i. holding, ii. fluxing, and iii. drossing.

- d. The test 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.
2. 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

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation: 9.18 tons NO_x per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

b. Emission Limitation: 0.82 lb NO_x/hr, 3.59 tons NO_x/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation: 0.81 lb CO/hr, 3.55 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission

Emissions Unit ID: P426

testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 24.45 lbs PE/day, 4.46 tons PE/yr

Applicable Compliance Method: The lb PE/day represents the potential to emit for this emissions unit based on the additive maximum pound/hr of the following operations and the maximum duration of the operation: holding (0.875 lb PE/hr, 22 hrs/day), fluxing (1.545 lb PE/hr, 1 hr/day) and dressing (3.655 lbs PE/hr, 1 hr/day). Compliance with the lb/hr limitations shall be determined through the testing required in sections A.V.1 and 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 365 days/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 2.5 lbs HF/hr, 0.5 ton HF/yr

Applicable Compliance Method: The lb HF/hr represents the potential to emit for this emissions unit determined by multiplying the maximum amount of cleaning flux (60 lbs) by the HF content of the fluxing agent (0.319 lb HF/lb flux) by the emission factor (0.13 lb HF emitted/lb HF).

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of once per day (24 hour period), 365 days/year and dividing by 2000 lbs/ton.

VI. Miscellaneous Requirements

NONE

GM P
PTI A

Emissions Unit ID: P426

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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>
P426 - Holding Furnace #1 (H1-2) [Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]		

2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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GM P

PTI A

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VI. Miscellaneous Requirements

Emissions Unit ID: P426

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>
P427 - Holding Furnace #2 (H2-3)	40 <u>CFR</u> Part 52.21 OAC rule 3745-31-(10-20)	control requirements (see A.I.2.a)
[Administrative modification of PTI 03-13364 issued on July 10, 2000 to GM Powertrain]	OAC rule 3745-31-05(D)	9.18 tons NO _x per rolling 12-month period based upon natural gas usage restrictions (see A.I.2.d)
	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of 40 <u>CFR</u> Part 52.21/OAC rule 3745-31-(10-20).
		0.82 lb NO _x /hr, 3.59 tons NO _x /yr
		0.81 lb carbon monoxide (CO)/hr, 3.55 tons CO/yr
		24.45 lbs particulate emissions (PE)/day, 4.46 tons PE/yr (holding, fluxing, & drossing)
		2.5 lbs hydrogen fluoride (HF)/hr, 0.5 ton HF/yr
	OAC rule 3745-17-11(B)	None (see A.2.b).
	OAC rule 3745-17-07(A)	None (see A.2.c).

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- 2.a** The permittee shall employ best available control technology (BACT) on this emissions unit. BACT has been determined to be the use of a control system meeting the following requirements for control of NO_x emissions:
- i furnaced designed with Low NO_x burners and designed to emit NO_x at a rate of 85 pounds NO_x/mmCf of natural gas burned.
- 2.b** The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), this emissions unit is exempt from the requirements of OAC rule 3745-17-11(B)(2).
- 2.c** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.
- 2.d** In order to comply with Prevention of Significant Deterioration (PSD) Significant Impact Increment requirement for NO_x, the permittee has requested federally enforceable restrictions to limit the potential to emit from the emissions units contained in this permit to install by limiting natural gas usage. Combined annual NO_x emissions from emissions units P423, P424, P426, and P427 shall not exceed 9.18 tons/yr, based upon a rolling, 12-month restriction of natural gas usage (see A.II.1).
- 2.e** The 0.82 lbs NO_x/hr and 0.81 lbs CO/hr emissions limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- 2.f** All PE is assumed to be in the form of PM₁₀.

II. Operational Restrictions

1. The maximum annual natural gas usage for emissions units P423, P424, P426, and P427 shall not exceed 216 mmCf, combined, based upon a rolling, 12-month summation of natural gas usage.

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

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<u>Month(s)</u>	<u>Maximum Cumulative natural gas usage (mmCf)</u>
1	18.0
1-2	36.0
1-3	54.0
1-4	72.0
1-5	90.0
1-6	108.0
1-7	126.0
1-8	144.0
1-9	162.0
1-10	180.0
1-11	198.0
1-12	216.0

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions units P423, P424, P426, and P427 :
 - a. the quantity of natural gas combusted, in mmCf;
 - b. for the first 12 months of operation under the provisions of this permit, the cumulative monthly natural gas usage; and
 - c. after the first 12 months of operation under the provisions of this permit, the annual natural gas usage, based on a rolling, 12-month summation of the monthly natural gas usage.

2. In addition to the above information, the permittee shall also record the following information each month for emissions units P423, P424, P426, and P427 :
 - a. the calculated NO_x emission rate, in tons per month;
 - b. for the first 12 months of operation under the provision of this permit, the cumulative monthly NO_x emission rate, in tons; and

- c. after the first 12 months of operation under the provisions of this permit, the annual NO_x emission rate, based on a rolling, 12-month summation of the monthly NO_x emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify exceedances of any of the following:
 - a. for the first 12 calendar months of operation, all exceedances of the allowable cumulative natural gas usage; and
 - b. the annual natural gas usage restrictions and emission limitation per rolling 12-month period.

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 this emissions unit.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x, CO, and for PE by confirming company supplied emission rates for: holding (0.875 lbs PE/hr-holding), fluxing (1.545 lbs PE/hr-fluxing), and drossing (3.655 lbs PE/hr-drossing); see V.3.d..
 - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate; for NO_x, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

The following test method shall be employed to confirm company supplied emission rates: for PE, Methods 1- 5 of 40 CFR Part 60, Appendix A.

Test Methods 1-5 shall be performed for each of the following operating conditions: i. holding, ii. fluxing, and iii. drossing.

- d. The test 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.
2. 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

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

3. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation: 9.18 tons NO_x per rolling 12-month period

Applicable Compliance Method: Compliance with the rolling 12-month emission limitation shall be demonstrated by the recordkeeping requirements specified in sections A.III.5.

b. Emission Limitation: 0.82 lb NO_x/hr, 3.59 tons NO_x/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation: 0.81 lb CO/hr, 3.55 tons CO/yr

Applicable Compliance Method: Compliance with the lb/hr limitation shall be determined through the testing required in section V.1 of the terms and conditions of the permit. Ongoing compliance with the lb/hr limitation shall be demonstrated through emission

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testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- d. Emission Limitation: 24.45 lbs PE/day, 4.46 tons PE/yr

Applicable Compliance Method: The lb PE/day represents the potential to emit for this emissions unit based on the additive maximum pound/hr of the following operations and the maximum duration of the operation: holding (0.875 lb PE/hr, 22 hrs/day), fluxing (1.545 lb PE/hr, 1 hr/day) and dressing (3.655 lbs PE/hr, 1 hr/day). Compliance with the lb/hr limitations shall be determined through the testing required in sections A.V.1 and 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 365 days/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emission Limitation: 2.5 lbs HF/hr, 0.5 ton HF/yr

Applicable Compliance Method: The lb HF/hr represents the potential to emit for this emissions unit determined by multiplying the maximum amount of cleaning flux (60 lbs) by the HF content of the fluxing agent (0.319 lb HF/lb flux) by the emission factor (0.13 lb HF emitted/lb HF).

The tons/yr emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of once per day (24 hour period), 365 days/year and dividing by 2000 lbs/ton.

VI. Miscellaneous Requirements

NONE

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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>
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2. Additional Terms and Conditions

2.a NONE

II. Operational Restrictions

NONE

III. Monitoring and/or Recordkeeping Requirements

NONE

IV. Reporting Requirements

NONE

V. Testing Requirements

NONE

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VI. Miscellaneous Requirements

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NONE