

**CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT**

**Chrysler Corporation
3660 North U.S.31
Kokomo, Indiana 46901**

is hereby authorized to construct an expansion to
an automobile transmission manufacturing plant consisting of the following equipment on page 2
of the permit.

This permit is issued to the above mentioned company (herein known as the Permittee)
under the provisions of 326 IAC 2-1 and 40 CFR 52.780,
with conditions listed on the attached pages.

Construction Permit No.: CP-067-9336-00058	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

- (a) one (1) water heater, natural gas fired with a rated capacity 0.99 MMBtu per hour, identified as (1-GWH-E),
- (b) eight (8) water heaters, natural gas fired with a rated capacity 0.08 MMBtu per hour, each, identified as (1-GWH-B),
- (c) one (1) air heater, natural gas fired with a rated capacity 0.24 MMBtu per hour, identified as (1-AHU-58),
- (d) eighteen (18) air heaters, natural gas fired with a rated capacity 2.625 MMBtu per hour, each, identified as (1-DH-1, 3, 4, 6-20),
- (e) two (2) air heaters, natural gas fired with a rated capacity 1.25 MMBtu per hour, each, identified as (1-DH-2, 1- DH5),
- (f) one (1) air heater, natural gas fired with a rated capacity 0.3 MMBtu per hour, identified as (3 -AHU-1),
- (g) one (1) water heater, natural gas fired with a rated capacity 0.065 MMBtu per hour, identified as (3-GWH-1),
- (h) one (1) make up air unit, natural gas fired with a rated capacity 2.38 MMBtu per hour, identified as (3 -MAU-1),
- (i) one (1) air heater, natural gas fired with a rated capacity 0.69 MMBtu per hour, identified as (3 -ACT-1),
- (j) one (1) air heater, natural gas fired with a rated capacity 0.345 MMBtu per hour, identified as (3 -ACT-2),
- (k) two (2) rotary shot blasters, 48 inch and 60 inch diameter, identified as unit # 6 and unit # 7, each using cut steel wire shot at a blast rate of 7,700 and 5,800 pounds per hour respectively. The particulate matter emissions from the shot blasting operations are controlled by a dust collector with high efficiency (HEPA) filters, and
- (l) three (3) emergency fire pumps rated at 368 HP, each, equipped with a diesel fired reciprocating internal combustion engine with a heat input rate of 3.14 MMBtu per hour.

Construction Conditions

General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
 - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
 - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).
 - (e) Pursuant to 326 IAC 2-7-4, the Permittee shall apply for a Title V operating permit within twelve (12) months after the source becomes subject to Title V. This 12-month period starts at the postmarked submission date of the Affidavit of Construction. If the construction is completed in phases, the 12-month period starts at the postmarked submission date of the

Affidavit of Construction that triggers the Title V applicability. The operation permit issued shall contain as a minimum the conditions in the Operation Conditions section of this permit.

7. That when the facilities are constructed and placed into operation the following operation conditions shall be met:

Operation Conditions

General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
2. That the Permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

Preventive Maintenance Plan

3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
 - (a) In the event that ownership of this automobile transmission manufacturing plant consisting of the combustion equipment and shot blasting operation is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
 - (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
 - (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may

be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(I), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

Performance Testing

7. That pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests shall be performed for particulate matter from shot blasters unit nos. 6 and 7 within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-6 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.
- (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test.
 - (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
 - (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
 - (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results. These actions shall be implemented immediately unless notified by OAM that they are acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.
 - (e) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this

permit to operate the affected facility.

Malfunction Condition

8. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

Annual Emission Reporting

9. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support & Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

Opacity Limitations

10. That pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

Particulate Matter Limitation:

11. (a) That pursuant to 326 IAC 6-1-2, the particulate matter emissions from shot blasters nos. 6

and 7 shall not exceed 0.03 grains per cubic foot at an air flow rate of 911 acfm, which is equivalent to 0.24 lb/hr.

- (b) That pursuant to 326 IAC 6-3 (Process Operations), the particulate matter (PM) emissions from the shot blasting operation shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 4.10P^{0.67}$$

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour, if
P is equal to or less than 60,000 lbs/hr (30 tons/hr)

Baghouse Operating Condition

12. That the baghouse controlling the two (2) shot blasters shall be operated at all times when the abrasive shot blasting processes are operation.
- (a) The Permittee shall take readings of the total static pressure drop across the baghouses, at least once per working shift. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 0.5 and 2.5 inches of water. The Preventive Maintenance Plan for these baghouses shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.
- (b) An inspection shall be performed each calendar quarter of the all the baghouses. Defective bags shall be replaced. A record shall be kept of the results of the inspection and the number of bags replaced.
- (c) In the event that a bag's failure has been observed:
- (i) The affected compartments will be shut down immediately until the failed units have been replaced.
- (ii) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.
13. Any change or modification which will alter operations in such a way that it will no longer comply with the applicable restrictions and conditions of this permit, must obtain the appropriate approval from the Office of Air Management (OAM) under 326 IAC 2-1, 326 IAC 2-2, 326 IAC 2-3, 326 IAC 2-7, and 326 IAC 2-8, before such change may occur.

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO₂, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 “Malfunction” definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Chrysler Corporation
3660 North U. S. 31
Kokomo, Indiana 46901

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal
(Company Name)

knowledge of the representations contained in this affidavit and am authorized to make

these representations on behalf of _____.
(Company Name)

4. I hereby certify that Chrysler Corporation, 3660 North U. S. 31, Kokomo, Indiana 46901, has constructed

(a) one (1) water heater, natural gas fired with a rated capacity 0.99 MMBtu per hour, identified as (1-GWH-E),

(b) eight (8) water heaters, natural gas fired with a rated capacity 0.08 MMBtu per hour, each, identified as (1-GWH-B),

(c) one (1) air heater, natural gas fired with a rated capacity 0.24 MMBtu per hour, identified as (1-AHU-58),

(d) eighteen (18) air heaters, natural gas fired with a rated capacity 2.625 MMBtu per hour, each, identified as (1-DH-1, 3, 4, 6-20),

(e) two (2) air heaters, natural gas fired with a rated capacity 1.25 MMBtu per hour, each, identified as (1-DH-2, 1- DH5),

(f) one (1) air heater, natural gas fired with a rated capacity 0.3 MMBtu per hour, identified as (3 -AHU-1),

(g) one (1) water heater, natural gas fired with a rated capacity 0.065 MMBtu per hour, identified as (3-GWH-1),

(h) one (1) make up air unit, natural gas fired with a rated capacity 2.38 MMBtu per hour, identified as (3 -MAU-1),

(i) one (1) air heater, natural gas fired with a rated capacity 0.69 MMBtu per hour, identified as (3 -ACT-1),

(j) one (1) air heater, natural gas fired with a rated capacity 0.345 MMBtu per hour, identified as (3 -ACT-2),

(k) three (3) emergency fire pumps each equipped with a diesel fired reciprocating internal combustion engine with a heat input rate of 3.14 MMBtu per hour, and

(l) two (2) rotary shot blasters, 48 inch and 60 inch diameter, identified as unit # 6 and unit # 7, each using cut steel wire shot at a blast rate of 7,700 and 5,800 pounds per hour respectively, and each equipped with a baghouse for control of particulate matter emissions.

5. I hereby certify that Chrysler Corporation is now subject to the Title V program and will submit a Title V

(or FESOP) operating permit application within twelve (12) months from the postmarked submission date of this Affidavit of Construction.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 19 _____.

My Commission expires: _____

Signature

Name (typed or printed)

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name: Chrysler Corporation
Source Location: 3660 North U.S.31, Kokomo, Indiana 46901
County: Howard
Construction Permit No.: CP-067-9336-00058
SIC Code: 3714
Permit Reviewer: Yogesh Parikh

The Office of Air Management (OAM) has reviewed an application from Chrysler Corporation relating to the construction and operation of an expansion to an automobile transmission manufacturing plant consisting of the following equipment:

CWOP Facilities :

- (a) one (1) water heater, natural gas fired with a rated capacity 0.99 MMBtu per hour, identified as (1-GWH-E),
- (b) eight (8) water heaters, natural gas fired with a rated capacity 0.08 MMBtu per hour, each, identified as (1-GWH-B),
- (c) one (1) air heater, natural gas fired with a rated capacity 0.24 MMBtu per hour, identified as (1-AHU-58),
- (d) eighteen (18) air heaters, natural gas fired with a rated capacity 2.625 MMBtu per hour, each, identified as (1-DH-1, 3, 4, 6-20),
- (e) two (2) air heaters, natural gas fired with a rated capacity 1.25 MMBtu per hour, each, identified as (1-DH-2, 1- DH5),
- (f) one (1) air heater, natural gas fired with a rated capacity 0.3 MMBtu per hour, identified as (3 -AHU-1),
- (g) one (1) water heater, natural gas fired with a rated capacity 0.065 MMBtu per hour, identified as (3-GWH-1),
- (h) one (1) make up air unit, natural gas fired with a rated capacity 2.38 MMBtu per hour, identified as (3 -MAU-1),
- (i) one (1) air heater, natural gas fired with a rated capacity 0.69 MMBtu per hour, identified as (3 -ACT-1),
- (j) one (1) air heater, natural gas fired with a rated capacity 0.345 MMBtu per hour, identified as (3 -ACT-2),

- (k) two (2) rotary shot blasters, 48 inch and 60 inch diameter, identified as unit # 6 and unit # 7, each using cut steel wire shot at a blast rate of 7,700 and 5,800 pounds per hour respectively. The particulate matter emissions from the shot blasting operations are controlled by a dust collector with high efficiency (HEPA) filters, and
- (l) three (3) emergency fire pumps rated at 368 HP, each, equipped with a diesel fired reciprocating internal combustion engine with a heat input rate of 3.14 MMBtu per hour.

Enforcement Issue

- (a) IDEM is aware that this combustion equipment,shot blasting units and the emergency fire pumps, listed on page 1 and 2 of 6 of this document, has been constructed prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.
- (b) Even prior to the proposed installation of this combustion equipment,shot blasting units and the emergency fire pumps, the source has been determined to be subject to Part 70 Permit Program, but the source has not submitted the appropriate application. Therefore, OAM is forwarding an enforcement referral to the Office of Enforcement (OE) regarding this issue.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on December 22, 1997.

Emissions Calculations

See Appendix A and emissions calculation spreadsheets for detailed calculations (5 pages).

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	68.5	240.4
Particulate Matter (PM10)	68.5	240.4
Sulfur Dioxide (SO ₂)	2.2	2.2
Volatile Organic Compounds (VOC)	1.4	1.4
Carbon Monoxide (CO)	6.6	6.6
Nitrogen Oxides (NO _x)	30.0	30.0
Single Hazardous Air Pollutant (HAP)	0.004	0.004
Combination of HAPs	0.004	0.004

- (a) Allowable PM/PM10 emissions are determined from the applicability of rule 326 IAC 6-3. See attached spreadsheets for detailed calculations.
- (b) The allowable emissions based on the rules cited are less than the potential emissions, therefore, the allowable emissions are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of particulate matter, particulate matter 10 microns and oxides of nitrogen are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Howard County has been designated as attainment or unclassifiable for ozone. Therefore, VOC were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Howard County has been classified as attainment or unclassifiable for rest of the criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Emissions (ton/yr)
PM	17.9
PM10	17.9
SO ₂	0.5
VOC	16.5
CO	41.0
NO _x	87.5

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) These emissions were based on the permit No. CP 067-6387-00058, issued on December 23, 1996.

Proposed Modification:

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity after controls):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed modification	4.14	4.14	2.2	1.4	6.6	30.0
PSD Threshold Level	250	250	250	250	250	250

This modification to an existing minor stationary source is not major because the emissions increases are less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source, including the emissions from this permit **CP-067-9336-00058**, is subject to the Part 70 Permit requirements because emissions of PM/PM10 and NOx are:

- (a) greater than or equal to 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than or equal to 10 tons per year, or
- (c) any combination of HAPs is less than or equal to 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

This source shall apply for a Title V operating permit, within twelve (12) months after the operation of this combustion and the process equipment.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (326 IAC 12) and 40 CFR Part 60 applicable to this facility.
- (b) 326 IAC 14 and 40 CFR 61, and 63 (Emission Standard for Hazardous Air Pollutants)

The combustion units, emergency fire pumps and shot blasting operation are not subject to Emission Standard For Hazardous Air Pollutants, 326 IAC 14, 40 CFR 61, and 40 CFR 63 as the individual and combined hazardous air pollutant emissions are less than one ton per year.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This source is subject to this rule because the source has potential to emit any of the criteria pollutants into the ambient air at levels equal to or greater than 100 tons per year. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 5-1-2 (Opacity Limitations: Visible Emissions Limitations)

This source is subject to the provisions of 326 IAC 5-1-2. Pursuant to this rule, visible emissions from a source or facility located in attainment area for particulate matter (PM) shall not exceed an average (40%) opacity in twenty-four (24) consecutive readings. Also visible emissions shall not exceed sixty per cent (60%) opacity for more than a cumulative total of fifteen (15) minutes sixty (60) readings in a six hour period.

326 IAC 6-1 (Non attainment area particulate limitations: applicability)

The Chrysler Corporation is located in Howard county, which is listed one of the counties in 326 IAC 6-7 and the potential PM emissions are greater than 100 tons per year. Therefore, the rule 326 IAC 6-1 is applicable to this source.

Pursuant to this rule, the controlled PM emissions shall be limited to 0.03 grains per dry standard cubic feet of exhaust gas. The outlet grain loadings of the shot blasting units 6 and 7 are 0.004 and 0.003 grains per dry standard cubic feet of exhaust gas respectively. Therefore, the source complies with the rule 326 IAC 6-1-2.

326 IAC 6-3-2 (Particulate Emissions Limitations)

The shot blasting operation is subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2(c), the particulate matter emissions from the abrasive shot blasting operation shall comply with the following equation:

$$E = 4.10P^{0.67} \quad \text{where: } E = \text{rate of emission in pounds per hour,}$$

P = process weight in tons per hour, if
P is equal to or less than 60,000 lbs/hr (30 tons/hr)

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

The VOC emissions from the combustion equipment and emergency fire pumps are not subject to the provisions of 326 IAC 8-1-6 because the potential VOC emissions are 1.4 tons per year, which is less than 25 tons per year, therefore, the requirements of 326 IAC 8-1-6 do not apply in this case. There are no other 326 IAC 8 rules that apply to this source.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This new source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See Page 1 of 5 of Appendix A for detailed air toxic calculations.
- (c) 326 IAC 2-1-3.4 (New Source Toxics Control Rule)

The source was constructed before July 27, 1997, the applicability date of this rule, and the single HAP, and combined HAP emissions are less than 10, and 25 tons per year respectively. Therefore, the rule 326 IAC 2-1-3.4 does not apply to shot blasting and combustion units and the emergency fire pumps.

Conclusion

The construction of the combustion equipment, emergency fire pumps, and the shot blasting units will be subject to the conditions of the attached proposed **Construction Permit No. CP-067-9336-00058**.

APPENDIX A

Page1 of 6

Emissions Calculations

Source Background and Description

Source Name: Chrysler Corporation
Source location: 3660 North U.S. 31, Kokomo, Indiana
County: Howard
Construction Permit No.: CP 067-9336
SIC Code: 3714
Permit Reviewer: Yogesh Parikh

The application is for addition of combustion equipment consisting of thirty five (35) water and air heaters, three (3) emergency fire pumps and two (2) shot blasting units to process cast iron and steel parts along with aluminum parts to produce automatic transmissions.

The particulate matter emissions from the shot blasting operations are controlled by a dust collector with high efficiency filters. The emissions from the combustion of natural gas and the diesel fuel oil No.2 are not controlled.

PM emissions from shot blasting units 6 and 7:

See attached spread sheet for detailed calculations (Page 2 of 4).

Emissions from the combustion process:

The emissions from the combustion of natural gas in the water heaters and air heaters are calculated. See attached spread sheet Page 3 of 4 for detailed calculations.

The emissions from the fuel fired reciprocating engines of the fire pumps are calculated. See attached spread sheet page 4 of 4 for detailed calculations.

Compliance with the rule 326 IAC 6-2-1:

Potential emissions of PM from the shot blasting unit 6 = 134.9 tons/yr.(see spreadsheet , page 3 of 5
for detailed calculations)
= 30.8 lb/hr.

Controlled emissions of PM = 30.8 lbs/hr x (1-0.999) (based on collection
efficiency of 99.9%)
= 0.0308 lb/hr.

Total filter area = 1350 ft²

Air to cloth ratio = 0.675 (ft³/min)/ ft²

Flow rate = Total filter area x Air to cloth ratio = 1350 x 0.675 = 911.25 acfm

7000 gr = 1 lb

PM emissions rate = (0.0308 lb/hr)/(911.25 ft³/min.)

= (0.0308 lb/hr x 7,000 gr/lb)/ (911.25 ft³/min. X 60 min/hr)

$$= (215.6 \text{ gr/hr}) / (54,675 \text{ ft}^3/\text{hr})$$

$$= 0.0039 \text{ gr/ft}^3$$

Since 0.004 gr/dscf is < 0.03 gr/dscf , It complies with the rule 326 IAC 6-1-2.

Potential emissions of PM from the shot blsting unit 7 = 101.62 tons/yr.(see spreadsheet , page 3 of 5 for detailed calculations)

$$= 23.2 \text{ lb/hr.}$$

Controlled emissions of PM = 30.8 lbs/hr x (1-0.999) (based on collection efficiency of 99.9%)

$$= 0.0232 \text{ lb/hr.}$$

Total filter area =1350 ft²
 Air to cloth ratio = 0.675 (ft³/min) / ft²
 Flow rate = Total filter area x Air to cloth ratio = 1350 x 0.675 = 911.25 acfm
 7000 gr = 1 lb

PM emissions rate = (0.0232 lb/hr)/(911.25 ft³/min.)

$$= (0.0232 \text{ lb/hr} \times 7,000 \text{ gr/lb}) / (911.25 \text{ ft}^3 / \text{min.} \times 60 \text{ min/hr})$$

$$= (162.4 \text{ gr/hr}) / (54,675 \text{ ft}^3 / \text{hr})$$

$$= 0.00297 \text{ gr/ ft}^3$$

Since 0.003 gr/dscf is < 0.03 gr/dscf , It complies with the rule 326 IAC 6-1-2.

HAP's Emissions:

The Manganese Compounds that will be emitted from the shot blasting operations are listed on the Y forms. This is the only HAP listed on Y form.

HAP Emissions	Lb/hr.	Tons/yr.
Manganese Compounds	0.001	0.0043

Emissions Summary:

Emissions (tons/yr)	PM	PM ₁₀	SO ₂	NO _x	VOC	CO
Potential emissions (tons/yr)	240.4	240.4	2.2	30.0	1.4	6.6
Allowable emissions (tons/yr)	68.5	68.5	2.2	30.0	1.4	6.6
Controlled emissions (tons/yr)	4.14	4.14	2.2	30.0	1.4	6.6

The allowable emissions of particulate matter, particulate matter 10 microns(PM/PM10) and nitrogen oxides (NO_x) are greater than 25 tons per year. Therefore, the source requires a construction permit pursuant to 326 IAC 2-1.