



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

September 16, 2003

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
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TO: Interested Parties / Applicant

RE: DaimlerChrysler Corporation-Kokomo Plant / 067-17799-00065

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-MOD.dot 8/11/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

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September 16, 2003

Mr. James Reed, Jr.
DaimlerChrysler Corporation - Kokomo Transmission Plant
2401 South Reed Road
Kokomo, IN 46904

Re: **067-17799**
Minor Source Modification to:
Part 70 Operating Permit No.: **T 067-6504-00065**

Dear Mr. Reed:

The DaimlerChrysler Corporation, Kokomo Transmission Plant was issued Part 70 Operating Permit **T 067-6504-00065** on September 1, 1999 for a transmission manufacturing operation. An application to modify the source was received on May 30, 2003. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

- (a) Thirty (30) wet machines, controlled by oil mist collectors. Each machine has a maximum air flow rate of 1,000 actual cubic feet per minute (acfm).
- (b) Three (3) laser welders, each controlled with a particulate control device with a flow rate of 700 actual cubic feet per minute (acfm).

The following construction conditions are applicable to the proposed project:

General Construction Conditions

- 1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- 2. This approval 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.
- 3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
- 4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval 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. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Patrick Brennan, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 21 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original Signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

PTB/MES

cc: File - Howard County
Howard County Health Department
Air Compliance Section Inspector - Ryan Hillman
Compliance Branch - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner



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**PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY**

**DaimlerChrysler Corporation
Kokomo Transmission Plant
2401 South Reed Road
Kokomo, Indiana 46904**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Fourth Minor Source Modification No. MSM 067-17799-00065	Conditions Affected: A.2, A.3, D.15 and D.16
Issued by: Original Signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 16, 2003

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A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

The Permittee owns and operates machining, cleaning, and heat treating facilities to produce transmissions for use in automobiles and light duty trucks. The DaimlerChrysler Corporation Kokomo Transmission Plant and DaimlerChrysler Corporation Kokomo Casting Plant have been considered a single Title V major source. The DaimlerChrysler Corporation Kokomo Casting Plant was issued a separate Title V permit under the Part 70 No. T067-5246-00065.

This DaimlerChrysler Corporation Kokomo Transmission Plant consists of the following emission units and pollution control devices:

24. Thirty (30) wet machines, controlled by oil mist collectors. Each machine has a maximum air flow rate of 1,000 actual cubic feet per minute (acfm).

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

47. Fourteen (14) laser welders, each controlled with a particulate control device with a flow rate of 700 actual cubic feet per minute (acfm).

SECTION D.15

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

47. Fourteen (14) laser welders, each controlled with a particulate control device with a flow rate of 700 actual cubic feet per minute (acfm).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.15.1 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the fourteen (14) laser welders shall be limited to 0.03 grain per dry standard cubic foot of exhaust air.

Compliance Determination Requirements

D.15.2 PM/PM₁₀ Control

The particulate control device for PM and PM₁₀ control shall be in operation and control emissions from the fourteen (14) laser welders at all times that the fourteen (14) laser welders are in operation.

SECTION D.16 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Wet Machines

24. Thirty (30) wet machines, controlled by oil mist collectors. Each machine has a maximum air flow rate of 1,000 actual cubic feet per minute (acfm).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.16.1 PM/ PM₁₀ [326 IAC 2-2]

- (a) PM emissions from the thirty (30) wet machines shall not exceed a total of 2.31 pounds per hour, equivalent to 10.1 tons per year.
- (b) PM₁₀ emissions from the thirty (30) wet machines shall not exceed a total of 2.31 pounds per hour, equivalent to 10.1 tons per year.
- (c) Compliance with the above limits, along with the PM and PM₁₀ emissions from the additional insignificant activities (three (3) laser welders) added in Section D.15, will ensure that total PM and PM₁₀ emissions from Minor Source Modification 067-17799-00065 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

D.16.2 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the thirty (30) wet machines shall be limited to 0.03 grain per dry standard cubic foot of exhaust air.

D.16.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification which may increase VOC emissions to 25 tons per year or more from the thirty (30) wet machines shall require prior approval of the Office of Air Quality and be subject to the requirements of 326 IAC 8-1-6 (General Reduction Requirements) before any such change may occur.

D.16.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.16.5 PM/PM₁₀ Control

The oil mist collectors for particulate control shall be in operation and control emissions from the thirty (30) wet machines at all times that the thirty (30) wet machines are in operation.

D.16.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within one hundred and eighty (180) days after achieving maximum production rate, but not later than three hundred and sixty five days (365) days after receipt of this permit, the Permittee shall conduct a performance test to verify the 0.0018 gr/dscf after controls emission factor, utilizing methods as approved by the Commissioner. This test shall be performed on four (4) representative oil mist collectors, or a lesser number as approved by the commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.16.7 Visible Emissions Notations

- (a) Visible emission notations of the oil mist collector stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.16.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the oil mist collectors used in conjunction with the thirty (30) wet machines, at least once weekly when the wet machines are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the oil mist collector is outside the normal range of 0.1 and 2.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.16.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.16.1 and D.16.2, the Permittee shall maintain records of all stack tests.
- (b) To document compliance with Condition D.16.7, the Permittee shall maintain the following:
 - (1) Records of daily visible emission notations of the oil mist collector stack exhausts.
 - (2) Records indicating which oil mist collectors are connected to the thirty (30) wet machines on each day that visible emissions notations are taken.
- (c) To document compliance with Condition D.16.8, the Permittee shall maintain weekly records of the total static pressure drop during normal operation when venting to the atmosphere.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source and Minor Permit Modifications

Source Background and Description

Source Name:	Daimler Chrysler Corporation Kokomo Transmission Plant
Source Location:	2401 South Reed Road, Kokomo, Indiana 46904
County:	Howard
SIC Code:	3714
Operation Permit No.:	T 067-6504-00065
Operation Permit Issuance Date:	September 1, 1999
Minor Source Modification No.:	067-17799-00065
Minor Permit Modification No.:	067-17714-00065
Permit Reviewer:	Patrick Brennan/MES

The Office of Air Quality (OAQ) has reviewed a modification application from the DaimlerChrysler Corporation, Kokomo Transmission Plant, relating to the construction and operation of the following emission units and pollution control devices:

- (a) Thirty (30) wet machines, controlled by oil mist collectors. Each machine has a maximum air flow rate of 1,000 actual cubic feet per minute (acfm).
- (b) Three (3) laser welders, each controlled with a particulate control device with a flow rate of 700 actual cubic feet per minute (acfm).

History

On May 30, 2003, the DaimlerChrysler Corporation, Kokomo Transmission Plant, submitted an application to the OAQ requesting to add additional wet machines and laser welders to their existing plant. The DaimlerChrysler Corporation, Kokomo Transmission Plant was issued a Part 70 permit on September 1, 1999.

During the review process for this permit, the Office of Air Quality requested that the applicant justify why, when addressing the PSD significance levels, the emission increases in this approval should not be combined with the emission increases from SSM 067-16686-00065, issued on June 23, 2003, because both applications permit nearly identical equipment. The applicant responded with additional information on July 2, 2003. They stated that SSM 067-16686-00065 involved permitting equipment for what is referred to as the Best in Class (BIC) project. The BIC project involved modernization and upgrade of manufacturing equipment, support systems and controls to produce parts for more complex transmission and drive train products being manufactured at the source.

The current application involves equipment being moved from the DaimlerChrysler Corporation New Castle Machining and Forge Facility, in New Castle, Indiana, known as the Machine Move Project. DaimlerChrysler has entered into an agreement with the Metaldyne Corporation, which transfers ownership and control of the New Castle facility to Metaldyne, but allows certain assets at the New

Castle plant to be retained by DaimlerChrysler. These assets include the equipment being permitted in this application, which is being moved from New Castle to the Kokomo Transmission Plant.

The Office of Air Quality has reviewed the information submitted by the applicant, and has concluded that the Best in Class Project and the Machine Move Project are two separate projects, and should be treated separately under PSD rules.

Source Definition

The operation of machining, cleaning, and heat treating facilities to produce transmissions for use in automobiles and light duty trucks company consists of two (2) plants:

- (a) Plant 1 is the Kokomo Transmission Plant (KTP), located at 2401 S. Reed Road, Kokomo, IN 46904; and
- (b) Plant 2 is the Kokomo Casting Plant (KCP), located at 1001 East Boulevard, Kokomo, IN 46904.

During the Part 70 permitting process, it was determined that the two (2) plants should be treated as one (1) Title V source. Solely for administrative purposes, the plants were issued separate Part 70 permits. The DaimlerChrysler Kokomo Transmission Plant was permitted as Part 70 Permit No. T-067-6504-00065, and the DaimlerChrysler Kokomo Casting Plant was permitted as Part 70 Permit No. T-067-5246-00065. This modification is to the Kokomo Transmission Plant permit only.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

There will be certain new stacks associated with this modification. The new wet machines will be connected to and controlled by both new and existing oil mist collectors. Because the machines are constantly being moved and reconfigured, the stack connected to a given wet machine changes with time. Condition D.16.9 requires the applicant to maintain records of which machines are connected to which stacks in order to perform the visual emissions monitoring required by Condition D.16.7.

Recommendation

The staff recommends to the Commissioner that the Part 70 Source Modification be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on May 30, 2003. Additional information was received on July 2, 2003.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A on page 12 of 12 of this document.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)		
	Wet Machines	Laser Welders	Total
PM	10.1	3.94	14.0
PM ₁₀	10.1	3.94	14.0
SO ₂	-	-	-
VOC	0.870	-	0.870
CO	-	-	-
NO _x	-	-	-

HAPs	Potential To Emit (tons/year)
Formaldehyde	0.0001
TOTAL	0.0001

Justification for Modification

The Part 70 Operating Permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4), because potential PM and PM₁₀ emissions are less than twenty-five (25) tons per year and greater than five (5) tons per year. The proposed operating conditions shall be incorporated into the Part 70 Operating Permit as a Minor Permit Modification (SPM 067-17714-00065) in accordance with 326 IAC 2-7-12(b)(1). The Minor Source Modification will give the source approval to construct and operate the proposed emission unit.

County Attainment Status

The source is located in Howard County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (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 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Howard County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (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 or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	greater than 250
PM ₁₀	greater than 250
SO ₂	greater than 250
VOC	greater than 250
CO	greater than 250
NO _x	greater than 250

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.

- (b) These emissions are based upon information contained in the Technical Support Document for the Part 70 permit for this source, T 067-6504-00065, issued on September 1, 1999.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Pollutant	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO _x (tons/yr)
Thirty (30) Wet Machines	10.1	10.1	-	0.870	-	-
Laser Welders (3) (Insignificant Activities)	2.37	2.37	-	-	-	-
Net Emissions	12.5	12.5	-	0.870	-	-
PSD Significant Level	25	15	40	40	100	40

- (a) This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) The applicant has submitted emissions calculations for the wet machines based on stack tests at similar machines. PM is assumed to equal PM₁₀. The limited PM and PM₁₀ emissions from the wet machines are based on a grain loading of 0.009 gr/dscf, which is the calculated emission rate before controls. This grain loading was back-calculated from an assumed after controls emission rate of 0.0018 gr/dscf, and a control efficiency of 80 percent. The 0.0018 gr/dscf after controls emission factor will be verified by stack testing.
- (c) The limited PM emissions from the laser welders are based on the 0.03 gr/dscf limit from 326 IAC 6-1-2(a). PM₁₀ is assumed to be equal to PM.

Federal Rule Applicability

- (a) This minor source modification does not involve a pollutant-specific emissions unit as defined in 40 CFR 64.1:
- (1) with the potential to emit before controls equal to or greater than the major source threshold;
 - (2) that is subject to an emission limitation or standard; and
 - (3) uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this modification.

- (b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The existing source is a major PSD source. However, because potential emissions of all criteria pollutants, after controls, are below the PSD significant levels, the modification is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1 (Particulate Limitations)

Because the proposed modification is located in Howard County, 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations) is applicable. Pursuant to 326 IAC 6-1-2 (a), particulate emissions from the thirty (30) wet machines, and the three (3) laser welders, shall not exceed 0.03 grains per dry standard cubic foot.

The grain loadings submitted by the applicant, shown on page 12 of 12 of this document, verify that these facilities will be in compliance with this rule.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(1), if a limit is established by 326 IAC 6-1, then the limitation contained in 326 IAC 6-3 shall not apply. Therefore, since the thirty (30) wet machines and the three (3) laser welders are subject to the requirements of 326 IAC 6-1-2 (a), the requirements of 326 IAC 6-3-2 are not applicable.

326 IAC 8-1-6 (New facilities; General Reduction Requirements)

Because the wet machines have VOC emissions and are covered by no other provisions of Article 8, 326 IAC 8-1-6 could be applicable. However, because uncontrolled potential VOC emissions from the thirty (30) wet machines are less than 25 tons per year, 326 IAC 8-1-6 (Best Available Control Technology) is not applicable. Any change or modification which would increase VOC emissions to greater than 25 tons per year shall require prior approval from the Office of Air Quality.

Stack Testing Requirements

Compliance stack tests on four (4) representative oil mist collectors shall be made within one hundred and eighty (180) days after achieving maximum production rate, but not later than three hundred and sixty five days (365) days after receipt of this permit. The Permittee shall conduct PM and PM₁₀ performance tests to verify the 0.0018 gr/dscf after controls emission factor for the wet machines, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Stack tests conducted on similar oil mist collectors already in existence at the source have used a modified US EPA Method 5. The modified Method 5 differs from the standard US EPA Method 5 in that the heated probe/filter temperature can be less than 68 degrees F. If stack gas conditions allow, this method may be used. A final determination will be reached between the source and the IDEM Compliance Data Section during the review and approval of the source sampling protocol.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to the thirty (30) wet machines are specified below:

- (a) Visible emissions notations of the oil mist collector stacks shall be performed once per day during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
- (b) The Permittee shall record the total static pressure drop across the oil mist collectors controlling the thirty (30) wet machines, at least once weekly when the wet machines are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the oil mist collectors shall be maintained within the range of 0.1 to 2.5 inches of water or a range established during the latest stack

test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the oil mist collectors for the wet machines must operate properly to ensure compliance with 326 IAC 6-1 (Particulate Limitations).

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

1. The wet machines have been added to the equipment description in Section A.2 of the permit as follows:
 - 24. Thirty (30) wet machines, controlled by oil mist collectors. Each machine has a maximum air flow rate of 1,000 actual cubic feet per minute (acfm).**
2. Three additional laser welders have been added to the list of insignificant activities in Section A.3 of the permit as follows:
 - 47. Fourteen (14) ~~Eleven (11)~~ laser welders, each controlled with a particulate control device with a flow rate of 700 actual cubic feet per minute (acfm).**
3. Section D.15 has been modified to include the additional three (3) laser welders as follows:

SECTION D.15 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

- 47. Fourteen (14) ~~Eleven (11)~~ laser welders, each controlled with a particulate control device with a flow rate of 700 actual cubic feet per minute (acfm).**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.15.1 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the **fourteen (14) ~~eleven (11)~~** laser welders shall be limited to 0.03 grain per dry standard cubic foot of exhaust air.

Compliance Determination Requirements

D.15.2 PM/PM₁₀ Control

The particulate control device for PM and PM₁₀ control shall be in operation and control emissions from the **fourteen (14) ~~eleven (11)~~** laser welders at all times that the **fourteen (14) ~~eleven (11)~~** laser welders are in operation.

3. Section D.16 has been added to the Part 70 permit as follows:

SECTION D.16

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Wet Machines

24. Thirty (30) wet machines, controlled by oil mist collectors. Each machine has a maximum air flow rate of 1,000 actual cubic feet per minute (acfm).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.16.1 PM/ PM₁₀ [326 IAC 2-2]

- (a) PM emissions from the thirty (30) wet machines shall not exceed a total of 2.31 pounds per hour, equivalent to 10.1 tons per year.
- (b) PM₁₀ emissions from the thirty (30) wet machines shall not exceed a total of 2.31 pounds per hour, equivalent to 10.1 tons per year.
- (c) Compliance with the above limits, along with the PM and PM₁₀ emissions from the additional insignificant activities (three (3) laser welders) added in Section D.15, will ensure that total PM and PM₁₀ emissions from Minor Source Modification 067-17799-00065 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

D.16.2 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the thirty (30) wet machines shall be limited to 0.03 grain per dry standard cubic foot of exhaust air.

D.16.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification which may increase VOC emissions to 25 tons per year or more from the thirty (30) wet machines shall require prior approval of the Office of Air Quality and be subject to the requirements of 326 IAC 8-1-6 (General Reduction Requirements) before any such change may occur.

D.16.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.16.5 PM/PM₁₀ Control

The oil mist collectors for particulate control shall be in operation and control emissions from the thirty (30) wet machines at all times that the thirty (30) wet machines are in operation.

D.16.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within one hundred and eighty (180) days after achieving maximum production rate, but not later than three hundred and sixty five days (365) days after receipt of this permit, the Permittee shall conduct a performance test on four (4) representative oil mist collectors to verify the 0.0018 gr/dscf after controls emission factor, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.16.7 Visible Emissions Notations

- (a) Visible emission notations of the oil mist collector stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.16.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the oil mist collectors used in conjunction with the thirty (30) wet machines, at least once weekly when the wet machines are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the oil mist collector is outside the normal range of 0.1 and 2.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.16.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.16.1 and D.16.2, the Permittee shall maintain records of all stack tests.
- (b) To document compliance with Condition D.16.7, the Permittee shall maintain the following:
 - (1) Records of daily visible emission notations of the oil mist collector stack exhausts.
 - (2) Records indicating which oil mist collectors are connected to the thirty (30) wet machines on each day that visible emissions notations are taken.
- (c) To document compliance with Condition D.16.8, the Permittee shall maintain weekly records of the total static pressure drop during normal operation when venting to the atmosphere.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Conclusion

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 067-17799-00065, and Minor Permit Modification No. 067-17714-00065.

Appendix A

Summary of Applicant Submitted Emission Calculations

1. Wet Machining Operations

The applicant plans to install 30 wet machining units. PM_{10} and VOC emissions from these machines are generated as oil mist droplets from the cutting fluids used to lubricate the machining process. These units will all be enclosed, with emissions controlled by oil mist collectors.

The most recent stack tests from similar wet machines located at the source found maximum outlet grain loadings of 0.0014 gr/dscf. The applicant has made the assumption that outlet grain loadings from the new machining units will be 0.0018 gr/dscf.

Assuming a control efficiency of 80%, the inlet grain loading for each wet machine is assumed to be $0.0018 \text{ gr/dscf} / (1.0 - 0.80) = 0.009 \text{ gr/dscf}$. Assuming a flow rate of 1,000 dscf/minute, the PM_{10} emissions before controls from each wet machine are:

$$PM_{10} = (0.009 \text{ gr/dscf}) \times (1000 \text{ dscf/min}) \times (60 \text{ min/hr}) \times (1.0 \text{ lb/7000 gr}) = 0.0771 \text{ lbs/hr/machine}$$

$$\begin{aligned} \text{Assuming 30 machines, } PM_{10} &= (0.0771 \text{ lb/hr/machine}) \times 30 \text{ machines} &= 2.31 \text{ lbs/hr} \\ & &= 10.13 \text{ tons/year} \end{aligned}$$

$$\begin{aligned} \text{Assuming 80\% control efficiency, } PM_{10} \text{ emissions after controls} &= 0.463 \text{ lbs/hr} \\ &= 2.03 \text{ tons/year} \end{aligned}$$

The worst case machining fluid used at the source has a maximum volatile content of 8.59% VOC. Accordingly, VOC emissions before controls are calculated as follows:

$$VOC = (0.0771 \text{ lbs/hr}) \times (0.0859 \text{ wt. percent VOC}) = 0.0066 \text{ lbs/hr/machine}$$

$$\begin{aligned} \text{Assuming 30 machines, VOC} &= (0.0066 \text{ lb/hr/machine}) \times 30 \text{ machines} &= 0.199 \text{ lbs/hr} \\ & &= 0.870 \text{ tons/year} \end{aligned}$$

$$\begin{aligned} \text{Assuming 80\% control efficiency, VOC emissions after controls} &= 0.0397 \text{ lbs/hr} \\ &= 0.174 \text{ tons/year} \end{aligned}$$

2. Laser Welders

The applicant is proposing to install three (3) laser welders. Each welder is equipped with a cartridge type dust collector with a control efficiency of 90%. The laser welders are defined as insignificant activities by 326 IAC 2-7-2 (21), but the emissions are quantified to determine the IDEM permitting level and PSD applicability.

The laser welders have an inlet grain loading of 0.05 gr/acfm, and a flow rate of 700 acfm. Emissions from the welders are calculated as follows:

$$PM_{10} = (0.05 \text{ gr/acf}) \times (700 \text{ acf/min}) \times (60 \text{ min/hr}) \times (1.0 \text{ lb/7000 gr}) = 0.30 \text{ lbs/hr/welder}$$

$$\begin{aligned} \text{Assuming 3 welders, } PM_{10} &= (0.30 \text{ lb/hr/welder}) \times 3 \text{ welders} &= 0.90 \text{ lbs/hr} \\ & &= 3.94 \text{ tons/year} \end{aligned}$$

$$\begin{aligned} \text{Assuming 90\% control efficiency, } PM_{10} \text{ emissions after controls} &= 0.09 \text{ lbs/hr} \\ &= 0.394 \text{ tons/year} \end{aligned}$$