INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: April 8, 2008

RE: AISIN Drivetrain, Inc. / 071-25726-00030

FROM: Matthew Stuckey, Branch 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 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, Suite N 501E, 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.dot12/03/07

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New Source Review and Minor Source Operating Permit
OFFICE OF AIR QUALITY

AISIN Drivetrain, Inc.
1001 Industrial Way
Crothersville, Indiana 47229

(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 to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M 071-25726-00030	
Issued by/Original Signed By: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 8, 2008 Expiration Date: April 8, 2013

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary automotive and industrial parts manufacturing plant.

Source Address:	1001 Industrial Way, Crothersville, Indiana 47229
Mailing Address:	1001 Industrial Way, Crothersville, Indiana, 47229
General Source Phone Number:	(812) 793-2427
SIC Code:	3714
County Location:	Jackson
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) rust preventive spray booth (PB1), constructed in 1997, on Drivetrain Assembly Line (T/M Line ASO100) using 0.27 gallons of hydrocarbon solvent per hour, controlled by a mist collector, and exhausting to Stack S1. The booth is also used for leak testing with a pinpoint developer. Developer does not have any VOC content;

(b) One (1) paint booth located in Kaizen (continuous improvement) area, identified as CFN2001, constructed in 2005, Particulate emissions controlled by Jet Collector venting to interior of building. Non-production, intermittent use of aerosol spray paints;

(c) One (1) adhesive coating line, identified as ACL-01, constructed in December 2006, processing 25,228,800 clutch plate pieces per year, performing tempering press, degreasing, etching, adhesive coating operations on clutch plates, exhausting to Stacks S5 and S6;

(d) Nine (9) degreasers (ATCL003 to ATCL007, ATCL014, CCL0015, CCL1000, and SCL1020) using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by mist collectors, exhausting in the interior;

(e) Two (2) degreasers (ATCL011,and CCL0016) using 0.125 gallons of water based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, not controlled by mist collectors;

(f) Two (2) conveyorized degreasing operations (ATCL002, and ATCL010), using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by mist collectors, exhausting to the interior;

(g) Three (3) conveyorized degreasing operations (ATCL008, ATCL009-01, and ATCL013), using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by a mist collector, exhausting to stack S4;

(h) Six (6) degreasers, identifies as CCL0017, CCL0019, CCL0020, CCL0023, CCL3000, and SMM1008, controlled by mist collector, with no VOC or HAP content, used for washing, and degreasing steel metal parts;

(i) One (1) manual parts cleaning operation for quality, using spray cans containing mineral spirits, constructed in 2007;

(j) One (1) batch mixing operation in the existing Silent Guard Mixer (SG MIX 1), approved for two new formulations- 423A and 411A to be added in 2008, with a maximum material input of 13,829.3 pounds per batch or 8,076.3 tons per year. VOC and PM emissions are generated during the manual loading of solvents and powder materials. The mixing operation is equipped with a dust collector (DC-1) for PM emission control and exhausting through one (1) stack identified as S MIX1. VOC emissions are collected in the hood over the mixer and exhaust through one (1) stack identified as S MIX 3. The empty powder material bags are stored in a Waste Bag Storage Area, producing negligible PM emissions, equipped with a dust collector (DC MIX 2) for industrial hygiene and cleanliness and exhausting through one (1) stack identified as S MIX 2; and

(k) Two (2) bonding lines performing bonding, identified as BL-01 and BL-02, constructed in December 2006 and 2007 respectively, and processing 25,228,800 clutch plate pieces per year each, adhesive recoating, code printing and dipping operations on clutch plates, exhausting to stacks S8 and S9;

(l) One(1) bonding line performing bonding using brush application method, identified as BL-03, approved for construction in 2008, processing 25,228,800 clutch plate pieces per year, code printing and dipping operations on clutch plates, and exhausting to Stacks S8 and S9.

(m) Twenty-nine (29) natural gas fired rooftop furnaces, constructed in 1995, 1997 and 1999, rated between 0.01 and 0.8 MMBtu/hr, with a combined capacity rating of 17.35 MMBtu/hr;

(n) Eight (8) natural gas propeller unit heaters, constructed in 1995 and 1997, rated between 0.1 and 0.4 MMBtu/hr, with a combined capacity rating of 2.6 MMBtu/hr;

(o) One (1) natural gas fired brazing furnace (ATHT003), constructed in 2000, rated at 0.635 MMBtu/hr, exhausting to stack S3;

(p) One (1) 0.4 MMBtu/hr direct-fired natural gas air make-up unit, constructed in 1995;

(q) One (1) 0.3 MMBtu/hr natural gas water heater, constructed in 1997;

(r) One (1) natural gas fired dryer, rated at 0.198 MMBtu/hr, constructed in December 2006, exhausting to Stack S7;

(s) Eight (8) metal inert gas (MIG) welders with a maximum hourly consumption of 2.75 pounds of wire per station, and one with a maximum wire usage rate of 8.25 pounds per hour;

(t) One (1) aluminum-anodizing tank, constructed in 2001, with particulate emissions controlled by a packed bed fume scrubber;

(u) Eleven (11) lathe machines for machining controlled by a mist collector, exhausting to the interior; with no emissions;

(v) Thirty Five (35) machine centers controlled by mist collectors, exhausting to the interior; with no emissions

(w) Three (3) process water cooling towers, constructed in 2000, identified as CT1, CT2 and CT3; with no emissions;

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M071-25726-00030, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M071-25726-00030 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.16 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.19 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to 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 this article.

C.3 Opacity [326 IAC 5-1]

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%) in 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 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.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.13 Response to Excursions or Exceedances

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.15 Malfunctions Report [326 IAC 1-6-2]

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 Quality (OAQ) 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 OAQ, 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]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) rust preventive spray booth (PB1), constructed in 1997, on Drivetrain Assembly Line (T/M Line ASO100) using 0.27 gallons of hydrocarbon solvent per hour, controlled by a mist collector, and exhausting to Stack S1. The booth is also used for leak testing with a pinpoint developer. Developer does not have any VOC content.

(b) One (1) paint booth located in Kaizen (continuous improvement) area, identified as CFN2001, constructed in 2005, Particulate emissions controlled by Jet Collector venting to interior of building. Non-production, intermittent use of aerosol spray paints;

(c) One (1) adhesive coating line, identified as ACL-01, constructed in December 2006, processing 25,228,800 clutch plate pieces per year, performing tempering press, degreasing, etching, adhesive coating operations on clutch plates, exhausting to Stacks S5 and S6;

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 VOC Limit [326 IAC 8-2-9]

The rust preventive spray booth (PB1) in the T/M Line AS0100 shall use less than fifteen (15) pounds per day of VOC, including coatings, dilution solvents, and cleaning solvents. Compliance with this limit renders 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) not applicable.

Compliance Determination Requirements

D.1.2 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ**,** reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.3 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.1.

(1) The VOC content of each coating material and solvent used less water.

(2) The amount of coating material and solvent used on a daily basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Nine (9) degreasers (ATCL003 to ATCL007, ATCL014, CCL0015, CCL1000, and SCL1020) using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by mist collectors, exhausting in the interior;

(e) Two (2) degreasers (ATCL011,and CCL0016) using 0.125 gallons of water based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, not controlled by mist collectors;

(f) Two (2) conveyorized degreasing operations (ATCL002, and ATCL010), using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by mist collectors, exhausting to the interior;

(g) Three (3) conveyorized degreasing operations (ATCL008, ATCL009-01, and ATCL013), using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by a mist collector, exhausting to stack S4;

(h) Six (6) degreasers, identifies as CCL0017, CCL0019, CCL0020, CCL0023, CCL3000, and SMM1008, controlled by mist collector, with no VOC or HAP content, used for washing, and degreasing steel metal parts;

(i) One (1) manual parts cleaning operation for quality, using spray cans containing mineral spirits, constructed in 2007;

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), for cold cleaning operations constructed after January 1, 1980, for each of the cold cleaning units, ATCL011, CCL0016, ATCL003 to ATCL 007, ATCL014, CCL0015,CCL1000, SCL1020, the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements; and

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-4]

Pursuant to 326 IAC 8-3-4 (Conveyorized Degreaser Operation), for conveyorized degreasing operations constructed after January 1, 1980, for each of the conveyerized degreasing units,

ATCL002, ATCL010, ATCL008, ATCL009-01, and ATCL013 the Permittee shall:

(a) Minimize carryout emissions by:

(1) Racking parts for best drainage;

(2) Maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);

(b) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;

(c) Repair solvent leaks immediately, or shut down the degreaser;

(d) Not use workplace fans near the degreaser opening;

(e) Not allow water in solvent exiting the water separator; and

(f) Provide a permanent, conspicuous label summarizing the operating requirements.

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Pursuant 326 IAC 8-3-5(a) (Organic Solvent Degreasing Operations), for each of the cold cleaner degreasing units (ATCL003 to ATCL007, ATCL014, CCL0015, CCL1000, SCL1020, ATCL011, and CCL0016), the owner or operator shall ensure that the following control equipment requirements are met:

(a) The permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-7]

Pursuant to 326 IAC 8-3-7(a) (Conveyorized Degreaser Operation and Control), for conveyorized degreasing operations with an air to solvent interface of twenty-one and six-tenths (21.6) square feet or greater, constructed after July 1, 1990:

(a) The Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser's entrances and exits with downtime covers which are closed when the degreaser is not operating.

(2) Equip the degreaser with the following switches:

(A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.

(B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

(C) A vapor level control thermostat which shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).

(3) Equip the degreaser with entrances and exits which silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.

(4) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment which prevents cleaned articles from carrying out solvent liquid or

vapor.

(5) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(6) Equip the degreaser with one (1) of the following control devices:

(A) A refrigerated chiller;

(B) A carbon adsorption system with ventilation which, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle; or

(C) Other systems of demonstrated equivalent or better control as those outlined in clause (A) or (B). Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-7(b) (Open Top Vapor Degreaser Operation and Control Requirements), the Permittee shall ensure that the following operating requirements are met:

(1) Minimize solvent carryout emissions by the following:

(A) Racking articles to allow complete drainage; and

(B) Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).

(2) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

(3) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.

(4) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.

(5) Prohibit the use of workplace fans near the degreaser opening.

(6) Prohibit visually detectable water in the solvent exiting the water separator.

(7) Cover entrances and exits at all times except when processing workloads through the degreaser.

(e) The total volume of the solvent.

(f) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(j) One (1) batch mixing operation in the existing Silent Guard Mixer (SG MIX 1), approved for two new formulations- 423A and 411A to be added in 2008, with a maximum material input of 13,829.3 pounds per batch or 8,076.3 tons per year. VOC and PM emissions are generated during the manual loading of solvents and powder materials. The mixing operation is equipped with a dust collector (DC-1) for PM emission control and exhausting through one (1) stack identified as S MIX 1. VOC emissions are collected in the hood over the mixer and exhaust through one (1) stack identified as S MIX 3. The empty powder material bags are stored in a Waste Bag Storage Area, producing negligible PM emissions, equipped with a dust collector (DC MIX 2) for industrial hygiene and cleanliness and exhausting through one (1) stack identified as S MIX 2.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.3.1 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the surface coating batch mixing operation shall not exceed 3.88 pounds per hour when operating at a process weight rate of 0.922 tons per hour.

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.3.2 Preventive Maintenance Plan

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

Compliance Determination Requirements

D.3.3 Particulate Control

(a) In order to comply with Condition D.3.1, the dust collector for particulate control shall be in operation at all times the silent guard mixer facility is in operation.

(b) In the event that dust cartridge failure is observed in a multi-compartment dust collector, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.3.4 Broken or Failed Dust Collector Detection

(a) For a single compartment dust collector controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.

(b) For a single compartment dust collector controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line

Indiana Department of Environmental Management
Office of Air Quality
Compliance Data Section

Source Name: AISIN Drivetrain, Inc.
Source Address: 1001 Industrial Way, Crothersville, Indiana 47229
Mailing Address: 1001 Industrial Way, Crothersville, Indiana, 47229
MSOP Permit No.: M071-25726-00030
Source/Facility: AISIN Drivetrain, Inc.
Pollutant: VOC
Limit: 15 pounds per day

Month: _____ **Year:** _____

Day	Usage this day (pounds/day)	Day	Usage this day (pounds/day)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		**TOTAL**	

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION

Source Name: AISIN Drivetrain, Inc.

Source Address: 1001 Industrial Way, Crothersville, Indiana 47229

Mailing Address: 1001 Industrial Way, Crothersville, Indiana 47229

MSOP No.: M071-25726-00030

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Notification

☐ Test Result (specify) _____

☐ Report (specify) _____

☐ Notification (specify) _____

☐ Affidavit (specify) _____

☐ Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	AISIN Drivetrain, Inc.
Address:	1001 Industrial Way
City:	Crothersville, Indiana 47229
Phone #:	(812) 793-2427
MSOP #:	M071-25726-00030

I hereby certify that AISIN Drivetrain, Inc. is :

☐ still in operation.
☐ no longer in operation.

I hereby certify that AISIN Drivetrain, Inc. is :

☐ in compliance with the requirements of MSOP M071-25726-00030.
☐ not in compliance with the requirements of MSOP M071-25726-00030.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-6865

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.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

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. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

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.

***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:

_____

_____

Indiana Department of Environmental Management
Office of Air Quality
Evansville Local Agency

Technical Support Document (TSD) for a Registration Transitioning to a Minor Source Operating Permit (MSOP) with New Source Review (NSR)

Source Description and Location

Source Name:	**AISIN Drivetrain, Inc.**
Source Location:	**1001 Industrial Way, Crothersville, IN 47229**
County:	**Jackson**
SIC Code:	**3714**
MSOP No.:	**071-25726-00030**
Permit Reviewer:	**Swarna Prabha**

On December 19, 2007, Office of Air Quality (OAQ) has received an application from AISIN Drivetrain, Inc. related to the construction and operation of new emission unit at an existing motor vehicle parts/accessories and power transmission equipment manufacturing plant and to transition from a registration to a MSOP.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Registration 071-12840-00030, issued on December 15, 2000;

(b) Registration Revision 071-14536-00030, issued on October 2, 2001;

(c) Registration Revision 071-19647-00030, issued on November 17, 2004;

(d) Registration Revision 071-23660-00030, issued on October 16, 2006;

(e) Registration Revision 071-24029-00030, issued on January 23, 2007; and

(f) Registration Notice Only Change 071-24764-00030, issued on June 12, 2007.

County Attainment Status

The source is located in Jackson County.

Pollutant	Status
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
8-hour Ozone	Attainment effective December 29, 2005, for the 8-hour ozone standard.[1]
NO_2	Cannot be classified or better than national standards.
PM-10	Unclassifiable effective November 15, 1990.
PM2.5	Unclassifiable or attainment effective April 5, 2005
Lead	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards

(1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.

(3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.

(4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Jackson County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Jackson County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(c) Other Criteria Pollutants

Jackson County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

(a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

(b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Background and Description of Permitted Emission Units

The Office of Air Quality (OAQ) has reviewed a Minor Source Operating Permit application, submitted by AISIN Drivetrain, Inc. on December 19, 2007, relating to the construction and operation of a third bonding line as well as an addition of two new formulations to the Silent Guard Mixer. It consists of the construction and operation of following emission facilities, at the existing plant.

The source consists of the following permitted emission units:

(a) One (1) rust preventive spray booth (PB1), constructed in 1997, on Drivetrain Assembly Line (T/M Line ASO100) using 0.27 gallons of hydrocarbon solvent per hour, controlled by a mist collector, and exhausting to Stack S1. The booth is also used for leak testing with a pinpoint developer. Developer does not have any VOC content.

(b) One (1) paint booth located in Kaizen (continuous improvement) area, identified as CFN2001, constructed in 2005, Particulate emissions controlled by Jet Collector venting to interior of building. Non-production, intermittent use of aerosol spray paints;

(c) One (1) adhesive coating line, identified as ACL-01, constructed in December 2006, processing 25,228,800 clutch plate pieces per year, performing tempering press, degreasing, etching, adhesive coating operations on clutch plates, exhausting to Stacks S5 and S6;

(d) Two (2) bonding lines performing bonding, identified as BL-01 and BL-02, constructed in December 2006 and 2007 respectively, and processing 25,228,800 clutch plate pieces per year each, adhesive recoating, code printing and dipping operations on clutch plates, exhausting to stacks S8 and S9;

(e) Nine (9) degreasers (ATCL003 to ATCL007, ATCL014, CCL0015, CCL1000, and SCL1020) using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by mist collectors, exhausting in the interior;

(f) Two (2) degreasers (ATCL011,and CCL0016) using 0.125 gallons of water based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, not controlled by mist collectors;

(g) Two (2) conveyorized degreasing operations (ATCL002, and ATCL010), using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by mist collectors, exhausting to the interior;

(h) Three (3) conveyorized degreasing operations (ATCL008, ATCL009-01, and ATCL013), using 0.125 gallons of water-based alkaline solvent per day (24 hour operation) for washing, cleaning, and degreasing steel metal parts, controlled by a mist collector, exhausting to stack S4;

(i) Six (6) degreasers, identifies as CCL0017, CCL0019, CCL0020, CCL0023, CCL3000, and SMM1008, controlled by mist collector, with no VOC or HAP content, used for washing, and degreasing steel metal parts;

(j) One (1) manual parts cleaning operation for quality bonding lines, using spray cans containing mineral spirits, constructed in 2007;

(k) Twenty-nine (29) natural gas fired rooftop furnaces, constructed in 1995, 1997 and 1999, rated between 0.01 and 0.8 MMBtu/hr, with a combined capacity rating of 17.35 MMBtu/hr;

(l) Eight (8) natural gas propeller unit heaters, constructed in 1995 and 1997, rated between 0.1 and 0.4 MMBtu/hr, with a combined capacity rating of 2.6 MMBtu/hr;

(m) One (1) natural gas fired brazing furnace (ATHT003), constructed in 2000, rated at 0.635 MMBtu/hr, exhausting to stack S3;

(n) One (1) 0.4 MMBtu/hr direct-fired natural gas air make-up unit, constructed in 1995;

(o) One (1) 0.3 MMBtu/hr natural gas water heater, constructed in 1997;

(p) One (1) natural gas fired dryer, rated at 0.198 MMBtu/hr, constructed in December 2006, exhausting to Stack S7; and

(q) Eight (8) metal inert gas (MIG) welders with a maximum hourly consumption of 2.75 pounds of wire per station, and one with a maximum wire usage rate of 8.25 pounds per hour;

(r) One (1) aluminum-anodizing tank, constructed in 2001, with particulate emissions controlled by a packed bed fume scrubber;

(s) Eleven (11) lathe machines using aqueous solution for machining, exhausting to the interior; with no emissions;

(t) Thirty Five (35) machine centers where aqueous cutting coolant continuously flooding the machining interface, exhausting to the interior; with no emissions;

(u) Three (3) process water cooling towers, constructed in 2000, identified as CT1, CT2 and CT3; with no emissions.

The following is the list of the new and modified emission units and pollution control devices:

(a) One (1) batch mixing operation in the existing Silent Guard Mixer (SG MIX 1), approved for two new formulations- 423A and 411A to be added in 2008, with a maximum material input of 13,829.3 pounds per batch or 8,076.3 tons per year. VOC and PM emissions are generated during the manual loading of solvents and powder materials. The mixing operation is equipped with a dust collector (DC-1) for PM emission control and exhausting through one (1) stack identified as S MIX1. VOC emissions are collected in the hood over the mixer and exhaust through one (1) stack identified as S MIX 3. The empty powder material bags are stored in a Waste Bag Storage Area, producing negligible PM emissions, equipped with a dust collector (DC MIX 2) for industrial hygiene and cleanliness and exhausting through one (1) stack identified as S MIX 2;

(b) One(1) bonding line performing bonding using brush application method, identified as BL-03, approved for construction in 2008, processing 25,228,800 clutch plate pieces per year, code printing and dipping operations on clutch plates, and exhausting to Stacks S8 and S9.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations. There are no emissions from lathe machining operation and machine centers where aqueous cutting coolant continuously flooding the machining interface, with no emissions.

Permit Level Determination – MSOP

The following table reflects the unlimited potential to emit (PTE) of the entire source 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)
PM	27.91
PM10(1)	28.45
SO_2	0.06
NO_x	9.38
VOC	20.08
CO	7.88

(1)Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

HAPs	Potential To Emit (tons/year)
Xylenes	0.20
Ethylbenzene	0.30
Methyl ethyl ketone	0.14
Benzene	negligible
Dichlorobenzene	negligible
Formaldehyde	0.01
n-Hexane	0.18
Toluene	0.25
Lead	negligible
Cadmium	negligible
Chromium	0.06
Manganese	negligible
Phenol	0.204
Nickel	negligible
TOTAL HAPs	**1.07**

(a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM and PM10 are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.

(b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) This requirements of 326 IAC 12 or 40 CFR 60, Subpart MM (60.390 through 60.398), Standards of Performance for the Automobile and Light Duty Truck surface Coating Operations are not included in the permit, because this source does not perform Automobile and Light Duty Truck surface coating.

(b) This source is not subject to the requirements of 40 CFR 60, Subpart E (60.50 through 60.54), Standards of Performance for Incinerators (326 IAC 12), because the natural gas-fired brazing and rooftop furnaces have a charging rate less than fifty (50) tons per day and they do not burn refuse consisting of more than 50 percent municipal type waste (household, commercial/retail, and/or institutional waste).

(c) This source is not subject to the requirements of the following New Source Performance Standards (NSPS), because the natural gas-fired brazing and rooftop furnaces are not considered municipal waste combustors or hospital/medical/infectious waste incinerators:

(1) 40 CFR 60 Subpart Ea (60.50a through 60.59a), Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or before September 20, 1994 (326 IAC 12).

(2) 40 CFR 60 Subpart Eb (60.50b through 60.59b), Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994, or for Which Modification or Reconstruction is commenced after June 19, 1996 (326 IAC 12).

(3) 40 CFR 60 Subpart Ec (60.50c through 60.58c), Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after January 20, 1996 (326 IAC 12).

(4) 40 CFR 60 Subpart AAAA (60.1000 through 60.1465), Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 (326 IAC 12).

(d) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart MMMM, Miscellaneous Metal Parts and Products Surface Coating, because this source is not a major source of HAPs as defined in 40 CFR 63.2.

(b) This source is not subject to the requirements of 40 CFR Subpart EEE (63.1200 through 63.1214), NESHAPs from Hazardous Waste Combustors (326 IAC 20-28-1), because the natural gas-fired brazing and rooftop furnaces are not considered hazardous waste incinerators and the source is not a major source of HAPs.

(c) This source is not subject to the requirements of the 40 CFR Subpart T (63.460 Through 63.470), NESHAP for for Halogenated Solvent Cleaning, because this operation does not use a degreasing solvent that contains any of the halogenated compounds listed in 40 CFR 63.460(a).

(d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

(a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated pollutants are less than 250 tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

(d) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

(e) 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:

(1) Opacity shall not exceed an average of thirty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(f) Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

State Rule Applicability - Surface Coating Operations (Bonding Lines BL-01, BL-02, and BL-03)

326 IAC 8-3 (Degreasing Operations)
Parts cleaning operation for the bonding line1, bonding line 2, and bonding line 3, are not subject to the requirements of 326 IAC 8-3. This rule applies to facilities performing organic solvent degreasing operations located anywhere in the state. The cleaning operation at this source is a manual operation using spray cans and the potential VOC emissions are less than 15 pounds per day each. Therefore, the requirements of 326 IAC 8-3 do not apply. Bonding Line 3 does not use cleaning solvent.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
Pursuant to 326 IAC 8-1-1(b), this source is not subject to 326 IAC 8-2-9 since the actual and potential VOC emissions from the emission units (Bl-01, BL-02, BL-03) are less than 15 pounds per day each. Therefore, the requirements of 326 IAC 8-2-9 do not apply.

326 IAC 8-1-6 (New facilities; general reduction requirements)
Each of the three bonding lines, which were constructed after the applicability date of January 1, 1980, are not subject to the requirements of 326 IAC 8-1-6, since they each have potential emissions of less than twenty-five (25) tons per year VOC.

State Rule Applicability - Surface Coating Operations (Kaizen Booth CFN 2001 and T/M Line AS0100)

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the Kaizen area paint booth, and the rust preventative spray booth (PB1) on Drive train Assembly Line (T/M Line AS0100) are each exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
Pursuant to 326 IAC 8-2-1, operations constructed after July 1, 1990, located in any county, and which have actual emissions of greater than fifteen (15) pounds per day before add-on controls. The potential to emit of the T/M Line AS0100 is greater than fifteen (15) pounds per day, but the

source has opted to limit the VOC input to less than fifteen (15) pounds per day in order to render the requirements of 326 IAC 8-2-9 not applicable.

326 IAC 8-1-6 (New facilities; general reduction requirements)
The requirements of 326 IAC 8-1-6 do not apply, because 326 IAC 8-2-9 already applies to the coating process.

State Rule Applicability - Adhesive Coating line

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the adhesive coating line ACL-01 is exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
Pursuant to 326 IAC 8-1-1(b), this source is not subject to 326 IAC 8-2-9 since the actual and potential VOC emissions from the emission unit adhesive coating line ACL-01 is less than 15 pounds per day. Therefore, the requirements of 326 IAC 8-2-9 do not apply.

326 IAC 8-1-6 (New facilities; general reduction requirements)
The potential VOC emissions from the adhesive coating line is below the twenty-five (25) tons per year applicability threshold therefore, this is not subject to the requirements of 326 IAC 8-1-6.

State Rule Applicability - Surface coating Mixer operation

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the batch mixing operation (SG MIX1) shall not exceed 3.88 pounds per hour when operating at a process rate of 0.922 tons per hour.

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The dust collector (DC MIX 2) shall be in operation at all times that powder material is being loaded in to the batch mixer, in order to comply with this limit.

The compliance monitoring for the dust collector is not required because potential and actual emissions from the mixing operation are less than 25 tons per year.

State Rule Applicability – Natural Gas Combustion Sources

326 IAC 4-2-2 (Incinerators)
The natural gas-fired brazing and rooftop furnaces are not incinerators, as defined by 326 IAC 1-2-34, since they do not burn waste sustances. Therefore, these ovens are not subject to 326 IAC 4-2-2.

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The natural gas-fired brazing furnaces, rooftop furnaces, air make-up unit, and heaters are not subject to 326 IAC 6-2 as they are not sources of indirect heating.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), each of the natural gas-fired brazing furnaces, rooftop furnaces, air make-up unit, and heaters are exempt from the requirements of 326 IAC 6-3, because they each have a potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)

The natural gas-fired brazing furnaces, rooftop furnaces, air make-up unit, and heaters are each not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

State Rule Applicability - Welding Operations

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

Pursuant to 326 IAC 6-3-1(b)(9), each of the eight (8) metal inert gas welders is exempt from the requirements of 326 IAC 6-3, because the potential to consume welding wire for each of the welders is less than six hundred twenty-five (625) pounds per day.

State Rule Applicability - Aluminum Anodizing Tank

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

Pursuant to 326 IAC 6-3-1(b)(14), the aluminum-anodizing tank is exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are less than five hundred fifty-one thousandths (0.551) pound per hour.

State Rule Applicability - Cold Cleaner Degreasing Units

326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control)

Pursuant to 326 IAC 8-3 (Organic Solvent Degreasing Operations), each of the cold cleaner degreasing units (ATCL003 to ATCL007, ATCL014, CCL0015, CCL1000, SCL1020, ATCL011, and CCL0016) are subject to the requirements of 326 IAC 8-3-5, because the units were constructed after the July 1, 1990 applicability date. Pursuant 326 IAC 8-3-5(a), for each of the cold cleaner degreasing units, the owner or operator shall ensure that the following control equipment requirements are met for each of the cold cleaner degreasing units:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees

Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control)

Pursuant to 326 IAC 8-3 (Organic Solvent Degreasing Operations), each of the cold cleaner degreasing units (ATCL003 to ATCL007, ATCL014, CCK0015, CCK1000, CCK1001, SCL1018, SCL1020, ATCL011, ATCL012, and CCL0016) are subject to the requirements of 326 IAC 8-3-5, because each unit was constructed after the July 1, 1990 applicability date. Pursuant 326 IAC 8-3-5(b), for each of the cold cleaner degreasing units, the owner or operator shall ensure that the following operating requirements are met for each of the cold cleaner degreasing units:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or unit dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

326 IAC 20-6-1 (Halogenated Solvent Cleaning)

This source is not subject to the requirements of the 326 IAC 20-6-1, since the degreasing operations do not use a solvent that contains any of the halogenated compounds listed in 326 IAC 20-6-1(a).

State Rule Applicability - Conveyorized Degreasing Units

326 IAC 8-3-7(a) (Conveyorized Degreaser Operation and Control)

Pursuant to 326 IAC 8-3 (Organic Solvent Degreasing Operations), each of the conveyorized degreasing units (ATCL002, ATCL010, ATCL008, ATCL009-01, and ATCL013) are subject to the requirements of 326 IAC 8-3-7, because each unit constructed after the July 1, 1990 applicability date. Pursuant 326 IAC 8-3-7(a), for each of the conveyorized degreasing units, the owner or operator shall ensure that the following control equipment requirements are met:

(1) Equip the degreasers entrances and exits with downtime covers which are closed when the degreaser is not operating;

(2) Equip the degreaser with the following switches:

(A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.

(B) A spray system switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

(C) A vapor level control thermostat which shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).

(3) Equip the degreaser with entrances and exits which silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.

(4) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment which prevents cleaned articles from carrying out solvent liquid or vapor.

(5) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-7(b).

(6) Equip the degreaser with one (1) of the following control devices:

(A) A refrigerated chiller.

(B) A carbon adsorption system with ventilation which, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.

(C) Other systems of demonstrated equivalent or better control as those outlined in clause (A) or (B). Such systems shall be submitted to the U.S. EPA as a SIP revision.

326 IAC 8-3-7(b) (Conveyorized Degreaser Operation and Control)

Pursuant to 326 IAC 8-3 (Organic Solvent Degreasing Operations), each of the conveyorized degreasing units (ATCL002, ATCL010, ATCL008, ATCL009-01, and ATCL013) are subject to the requirements of 326 IAC 8-3-7, because each unit constructed after the July 1, 1990 applicability date. Pursuant 326 IAC 8-3-7(b), for each of the conveyorized degreasing units, the owner or operator shall ensure that the following operating requirements are met:

(1) Minimize solvent carryout emissions by the following:

(A) Racking articles to allow complete drainage.

(B) Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).

(2) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

(3) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.

(4) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration [requirements].

(5) Prohibit the use of workplace fans near the degreaser opening.

(6) Prohibit visually detectable water in the solvent exiting the water separator.

(7) Cover entrances and exits at all times except when processing workloads through the degreaser.

326 IAC 20-6-1 (Halogenated Solvent Cleaning)

This source is not subject to the requirements of the 326 IAC 20-6-1, since the degreasing operations do not use a solvent that contains any of the halogenated compounds listed in 326 IAC 20-6-1(a).

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant on January 2, 11, 23, and 29, and February 11, 2008. An application for the purposes of this review was received on December 19, 2007.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Review and MSOP No. 071-25726-00030. The staff recommends to the Commissioner that this New Source Review and MSOP be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Swarna Prabha at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5376 or toll free at 1-800-451-6027 extension (45376).

(b) A copy of the findings is available on the Internet at: www.in.gov/idem/permits/air/pending.html.

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem/permits/guide/.

Appendix A: Emissions Calculations
VOC, Particulate, HAPs
Emission Summary

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP No.: 071-25726-00030
Reviewer: Swarna Prabha

	Uncontrolled Potential Emissions (tons/year)												
		Emissions Generating Activity											
Category	Pollutant	Rust Prevent ASO100	Kaizen Painting	Storage dip tank	(3)Bonding lines	Adhesive coating	Mixer Formulation	Natural Gas Combustion	Welding	Anodizing	Degreasing Operation	MNO spirit	**TOTAL**
Criteria Pollutants	PM	1.56	0.39				24.90	0.18	0.24	0.65			27.91
	PM10	1.56	0.39				24.90	0.72	0.24	0.65			28.45
	SO2							0.06					0.06
	NOx							9.45					9.45
	VOC	6.24	0.63	1.24	2.01	2.21	5.03	0.52			0.13	2.08	20.08
	CO							7.94					7.94
Hazardous Air Pollutants	Xylenes		0.196										0.20
	Ethylbenzene		0.034										0.03
	Methyl ethyl ketone		0.140										0.14
	Benzene							2.0E-04					2.0E-04
	Dichlorobenzene							1.1E-04					1.1E-04
	Formaldehyde							0.01					0.01
	n-Hexane		0.009					0.17					0.18
	Toluene		0.246					3.2E-04					0.25
	Lead							4.7E-05					4.7E-05
	Cadmium							1.0E-04					1.0E-04
	Chromium				0.06			1.3E-04	1.2E-04				0.06
	Manganese							3.6E-05	2.6E-03				2.7E-03
	Phenol				0.042	0.162							0.204
	Nickel							2.0E-04					2.0E-04
	Totals		**0.625**		**0.103**	**0.162**		**0.177**	**2.77E-03**		**Total HAPs**		**1.07**
											Worst Single HAP		**0.25**

Total emissions based on rated capacity at 8,760 hours/year.

	Controlled Potential Emissions (tons/year)												
		Emissions Generating Activity											
Category	Pollutant	Rust Prevent ASO100	Kaizen Painting	storage dip tank	(3)Bonding lines	Adhesive coating	Mixer Formulation	Natural Gas Combustion	Welding	Anodizing	Degreasing Operation	MNO spirit	**TOTAL**
Criteria Pollutants	PM	1.56	0.39				24.90	0.18	0.24	0.03			27.30
	PM10	1.56	0.39				24.90	0.72	0.24	0.03			27.84
	SO2							0.06					0.06
	NOx							9.45					9.45
	VOC	6.24	0.63	1.24	2.01	2.21	5.03	0.52			0.13	2.08	20.08
	CO							7.94					7.94
Hazardous Air Pollutants	Xylenes		0.196										0.20
	Ethylbenzene		0.034										0.03
	Methyl ethyl ketone		0.140										0.14
	Benzene							2.0E-04					1.97E-04
	Dichlorobenzene							1.1E-04					1.13E-04
	Formaldehyde							0.01					0.01
	n-Hexane		0.009					0.17					0.18
	Toluene		0.246					3.2E-04					0.25
	Lead							4.7E-05					4.69E-05
	Cadmium							1.0E-04					1.03E-04
	Chromium				0.06			1.3E-04	1.2E-04				6.15E-02
	Manganese							3.6E-05	2.6E-03				2.69E-03
	Phenol				0.042	0.162							2.04E-01
	Nickel							2.0E-04					2.0E-04
	Totals		**0.625**		**0.103**	**0.162**		**0.177**	**2.77E-03**		**Total HAPs**		**1.07**
											Worst Single HAP		**0.25**

Total emissions based on rated capacity at 8,760 hours/year.

Appendix A: Emissions Calculations
VOCs and Particulate
(PB1) Rust Prevention Application-T/M Line ASO100

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP No.: 071-25726-00030
Reviewer: Swarna Prabha

Volatile Organic Comounds (VOC) and Particulate Matter (PM)

Process Unit ID	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (lb/hr)	Particulate Potential (tons/year)	lb VOC/ gal solids	Transfer Efficiency
T/M Assembly RP Unit	6.60	80.0%	0.0%	80.0%	0.0%	5.00%	0.270	5.28	5.28	1.43	34.21	6.24	0.36	1.56	105.60	0%
									Totals	**1.43**	**34.21**	**6.24**	**0.36**	**1.56**		

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hours/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hr) * (24 hours/day) * (365 days/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year =Density (lb/gal) * Gal of Material (gal/hr) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (24 hours/day) * (365 days/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

No HAPs are present in the product being used

Appendix A: Emissions Calculations
VOCs, Particulate, HAPs
From Surface Coating Operations
Kaizen Paint Booth (CFN2001)

Company Name: **AISIN Drivetrain, Inc.**
Address City IN Zip: **1001 Industrial Way, Crothersville, IN 47229**
MSOP NO.: **071-25726-00030**
Reviewer: **Swarna Prabha**

MSDS	Type of Solid	Density of Solid (lb/gal)	Weight % Solid	Volume % Solid	Other Solids	Weight % of Other Solids	Volume % of Other Solids	Total Volume % All Solids	Total Weight % All Solids
41295	Acrylic Alkyd	8.77	15.7%	11.40%				11.4%	15.7%
39610	Zinc	59.58	47.0%	7.57%	Unknown	3.9%	4.4%	12.0%	50.9%
41559	Titanium Dioxide	35.55	4.0%	0.72%	Unknown	15.6%	11.3%	12.0%	19.6%
41560	Calcium Carbonate	24.45	17.0%	4.85%	Unknown	16.8%	13.2%	18.0%	33.8%
41555	Carbon Black	15.04	4.0%	1.70%	Unknown	11.8%	7.3%	9.0%	15.8%

Volatile Organic Comounds (VOC) and Particulate Matter (PM)

MSDS	Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water + Non-VOCs	Total Weight % All Solids	Weight % VOCs	Volume % Water + Non-VOCs	Total Volume % All Solids	Volume % Volatile (H20 & Organics)	Maximum Paint Usage (gal/hr)*	Maximum Paint Usage (lbs/hour)	Pounds VOC per gallon of coating less water and non-VOCs	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (lb/day)	Particulate Potential (tons/yr)	lb VOC per gal solids	Transfer Efficiency
41295	Aervoe RustProof (solvent based) Aerosol	6.37	84.3%	39.0%	15.7%	45.3%	37.9%	11.4%	88.6%	0.0303	0.193	4.64	2.89	0.09	2.10	0.38	0.44	0.08	25.31	40%
39610	**Sherwin-Williams Zinc-Rich Cold Galvanizing**	**9.60**	**49.1%**	**0%**	50.9%	**49.1%**	**0%**	**12.0%**	**88.0%**	**0.0303**	**0.291**	**4.71**	**4.71**	**0.14**	**3.42**	**0.63**	**2.13**	**0.39**	**39.24**	**40%**
41559	Sherwin-Williams Purple Aerosol	6.41	80.4%	26.0%	19.6%	54.4%	25.4%	12.0%	88.0%	0.0303	0.194	4.68	3.49	0.11	2.54	0.46	0.55	0.10	29.07	40%
41560	Sherwin-Williams Sun Glow Orange Aerosol	6.98	66.2%	15.0%	33.8%	51.2%	16.0%	18.0%	82.0%	0.0303	0.211	4.25	3.57	0.11	2.60	0.47	1.03	0.19	19.83	40%
41555	Gloss Black Aerosol	6.39	84.2%	19.0%	15.8%	65.2%	18.5%	9.0%	91.0%	0.0303	0.194	5.11	4.17	0.13	3.03	0.55	0.44	0.08	46.31	40%
													Worst Case Coating	**0.14**	**3.42**	**0.63**	**2.13**	**0.39**		

*Maximum Paint Usage provided by source was estimated at 0.0303 gal/hr by doubling the actual paint usage of 0.0151 gal/hr

METHODOLOGY

Volume % if Solids = Density of Paint (lb/gal) * Weight % of Solids / Desity of Solids (lb/gal)
Maximum Paint Usage (lbs/hr) = Maximum Paint Usage (gal/hr) * Density of Paint (lb/gal)
Potential VOC Pounds per Hour = Maximum Paint Usage (lbs/hr) * Weight % VOCs
Potential VOC Pounds per Day = Potential VOC (lbs/hr) * (24 hours/day)

Pounds of VOC per Gallon Coating less Water and non-VOCs = (Density (lb/gal) * Weight % VOCs) / (1-Volume % water and non-VOCs)
Pounds of VOC per Gallon Coatin Potential VOC Tons per Year = Potential VOC (lbs/day) * (365 days/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (ga/day * (lbs/gal) * (Weight % Solids) * (1-Transfer efficiency) *(365 days/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % VOCs) / (Volume % solids)

Hazardous Air Pollutants (HAPs)

MSDS	Material	Maximum Paint Usage (lbs/hr)	Weight % Hexane	Weight % Xylene	Weight % Toluene	Weight % EB	Weight % MEK	Hexane Emissions (ton/yr)	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	EB Emissions (ton/yr)	MEK Emissions (ton/yr)
41295	Aervoe RustProof (solvent based) Aerosol	0.193		12.00%		2.00%			0.101		0.017	
39610	**Sherwin-Williams Zinc-Rich Cold Galvanizing**	0.291			5.00%		11.00%			0.064		0.140
41559	Sherwin-Williams Purple Aerosol	0.194		23.00%		4.00%			0.196		0.034	
41560	Sherwin-Williams Sun Glow Orange Aerosol	0.211	1.00%	12.00%		2.00%		0.009	0.111		0.019	
41555	Gloss Black Aerosol	0.194		7.00%	29.00%	1.00%			0.059	0.246	0.008	
							Worst Case Coating	**0.009**	**0.196**	**0.246**	**0.034**	**0.140**

Abbreviations

EB = Ethyl Benzene

MEK = Methyl Ethyl Ketone

TOTAL HAPs **0.63** **ton/yr**

METHODOLOGY

HAPS emission rate (tons/yr) = Maximum Paint Usage (lbs/hr) * Weight % HAP * 24 hours/day * 365 days/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Dip Tank

Company Name: **AISIN Drivetrain, Inc.**
Address City IN Zip: **1001 Industrial Way, Crothersville, IN 47229**
MSOP No: **071-25726-00030**
Reviewer: **Swarna Prabha**

ATF Dip Tank Potential Emissions

ATF dip tank:

One (1) dip tank installed in 2007 with 10 gallon capacity utilizing Toyota ATF WS oil.

Solvent Data:

Solvent Name	Manufacturer	Product Density [lb/gal] (1)	VOC Content [lb/gal]
Toyota ATF WS oil	Nippon Oil Ltd	7.1	7.1

Potential Emissions:

Max. Annual Oil Usage [gal/yr] (2)	Max. Hourly Oil Usage [gal/hr] (3)	Potential VOC Emissions [lb/hr] (4)	Potential VOC Emissions [tpy] (5)
347	0.040	0.283	1.24

Additional Information:

(1) Product Density [lb/gal] = Specific Gravity x 8.34 lb/gal = 0.856 x 8.34
(2) Maximum oil usage was determined by taking the typical annual Oil usage (190 gallons) x (8,760 hours / 4,800hours) to estimate a maximum annual Oil usage. These hour numbers are identical to what was used for the bonding lines
(3) Max. Hourly Oil Usage [gal/hr] = Max. Annual Oil Usage [gal/yr] / 8,760 hr/yr
(4) Potential VOC Emissions [lb/hr] = Max. Hourly Oil Usage [gal/hr] x VOC Content [lb/gal]
(5) Potential VOC Emissions [tpy] = Potential VOC Emissions [lb/hr] x 8,760 hr/yr / 2,000 lb/ton

Appendix A: Emissions Calculations
VOC and Particulate
Three (3) Bonding Line Surface Coating Material Usage

Company Name: **AISIN Drivetrain, Inc.**
Address City IN Zip: **1001 Industrial Way, Crothersville, IN 47229**
MSOP NO.: **071-25726-00030**
Reviewer: **Swarna Prabha**

Bonding Operation **BL-01**

Process/Coating ID	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Total Potential Annual Usage	Total Actual Annual Usage**	Actual VOC tons per year**	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
							(lb/year)	(lb/year)					
Cemedine R954	8.17	100.00%	45.10%	54.90%	45.10%	0.00%	567.00	311.00	0.09	0.156	0.00	0.00	100%
MEK Solvent	6.76	100.00%	0.00%	100.00%	0.00%	0.00%	313.00	171.00	0.09	0.157	0.00	0.00	100%
Ink 5157E	6.76	100.00%	0.00%	100.00%	0.00%	10.00%	408.00	223.70	0.11	0.204	0.00	0.00	100%
Solvent for Ink 5191	7.26	100.00%	0.00%	100.00%	0.00%	0.00%	309.00	169.00	0.08	0.155	0.00	0.00	100%
						Emissions-BL-01 Uncontrolled			**0.37**	**0.671**	**0.00**		
						Controlled emissions tons/yr			**0.37**	**0.671**	**0.00**		
						Combined Emissions BL-01, BL-02,and BL-03			**1.10**	**2.012**	**0.00**		

* Transfer efficiency is 100% due to the fact that application is done through a brush.
** Actual usage of coating per year

PTE of HAPS-BL-01

Bonding BL-01	Total Potential Annual Usage (lb/yr)	Phenol (108-95-2)	Salt Of Chromium
Cemedine R954 lb/yr	567	4.90%	
MEK Solvent lb/yr	313	0.00%	
Ink 5157E (lb/yr)	408	0.00%	10%
Solvent for Ink 5191 (lb/yr)	309	0.00%	
	Tons/yr	**0.014**	**0.020**
Total HAPs BL-01, BL-02, BL-03 tons/y		**0.042**	**0.06**

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Sum of worst case coatings in each booth

Appendix A: Emissions Calculations
VOC and Particulate
ACL-01 Adhesive Line Surface Coating Material Usage

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP NO.: 071-25726-00030
Reviewer: Swarna Prabha

Adhesive Operation - ACL-01

Process/Coating ID	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Total Potential Annual Usage (lb/year)	Total Actual Annual Usage** (lb/year)	Actual VOC tons per year**	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
Cemedine R954	8.17	100.00%	45.10%	54.90%	45.10%	0.00%	6618.00	3626.00	1.00	1.817	0.00	0.00	100%
MEK Solvent	6.76	100.00%	0.00%	100.00%	0.00%	0.00%	781.00	428.00	0.21	0.391	0.00	0.00	100%
									Potential Emissions tons/yr	**2.207**	**0.000**		

* Transfer efficiency is 100% due to the fact that application is done through a brush.

** Actual usage of coating per year

PTE of HAPS

	Total Potential Annual Usage (lb/yr)	Phenol (108-95-2)	Salt Of Chromium
Cemedine R954 lb/yr	6,618	4.90%	
MEK Solvent lb/yr	781	0.00%	
	Total Tons/yr	**0.162**	**0.000**
	Total HAPs	**0.162**	

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Sum of worst case coatings in each booth

Appendix A: Emissions Calculations
VOC and Particulate
From Formulation Mixer Operation

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP NO. 071-25726-00030
Reviewer: Swarna Prabha

Complete Batch Time = 7.5 hours

Potential Emissions Summary for "Silent Guard AD-411A-US3" Process

Material Name	Lbs chemical per batch	Tons/yr [1]	% solid	Tons solid/yr	PM/PM10 Emissions (tons/yr) [2,3]	PM/PM10 Emissions (lbs/hr) [2,3]	PM/PM10 Collection Efficiency	PM/PM10 Control Efficiency [5]	Controlled PM/PM10 Emissions (tons/yr)	VOC wt%	Tons VOC/yr	VOC Emissions (tons/yr) [2,4]
Styrofan NX6690X	1036	605.02	0.00%							0.00%		
NA301 **	1534	895.86	0.00%							0.00%		
Exp4160 **	1470	858.48	0.00%							0.00%		
NX5818 **	652	380.77	0.00%							0.02%	0.08	0.00
Propylene Glycol	166	96.94	0.00%							100.00%	96.94	1.94
Dapro DF975	15	8.76	0.00%							22.71%	1.99	0.04
Dowfax 2A1	32	18.69	0.00%							0.00%		
Mica325S(Zemex) **	250	146.00	100.00%	146.00	0.73	0.17	99.5%	99.999%	0.00	0.00%		
Bentone CT	192	112.13	100.00%	112.13	0.56	0.13	99.5%	99.999%	0.00	0.00%		
Hydropalat 44	51	29.78	0.00%							3.50%	1.04	0.02
Deionized H2O	51	29.78	0.00%							0.00%		
MMB **	70	40.88	0.00%							100.00%	40.88	0.82
DBE	70	40.88	0.00%							100.00%	40.88	0.82
DINP	38	22.19	0.00%							0.00%		
Raven 410	6	3.50	100.00%	3.50	0.02	0.00	99.5%	99.999%	0.00	0.00%		
Micropearl F36 **	63	36.79	70.00%	25.75	0.13	0.03	99.5%	99.999%	0.00	20.00%	7.36	0.15
Micropearl F48 **	45	26.28	75.00%	19.71	0.10	0.02	99.5%	99.999%	0.00	18.00%	4.73	0.09
Pencook 10	450	262.80	100.00%	262.80	1.31	0.30	99.5%	99.999%	0.01	0.00%		
Baricron 1040	1850	1080.40	100.00%	1080.40	5.40	1.23	99.5%	99.999%	0.03	0.00%		
HuberCarb Q200	5700	3328.80	100.00%	3328.80	16.64	3.80	99.5%	99.999%	0.08	0.00%		
Acrysol TT615	62.7	36.62	0.00%							0.00%		
Deionized H2O	25.6	14.95	0.00%							0.00%		
	13829.3	8076.31			**24.90**	**5.68**			**0.12**			**3.88**

Complete Batch Time = 7.5 hours

Potential Emissions Summary for "Silent Guard AD-423A-US3" Process

Material Name	Lbs chemical per batch	Tons/yr [1]	% solid	Tons solid/yr	PM/PM10 Emissions (tons/yr) [2,3]	PM/PM10 Emissions (lbs/hr) [2,3]	PM/PM10 Collection Efficiency	PM/PM10 Control Efficiency [5]	Controlled PM/PM10 Emissions (tons/yr)	VOC wt%	Tons VOC/yr	VOC Emissions (tons/yr) [2,4]
Styrofan NX6690X	1047	611.45	0.00%							0.00%		
Exp4160 **	3032	1770.69	0.00%							0.00%		
NX5818 **	660	385.44	0.00%							0.02%	0.08	0.00
Propylene Glycol	232	135.49	0.00%							100.00%	135.49	2.71
Dapro DF975	15	8.76	0.00%							22.71%	1.99	0.04
Dowfax 2A1	32	18.69	0.00%							0.00%		
Mica325S(Zemex) **	900	525.60	100.00%	525.60	2.63	0.60	99.5%	99.999%	0.01	0.00%		
Bentone CT	129	75.34	100.00%	75.34	0.38	0.09	99.5%	99.999%	0.00	0.00%		
Hydropalat 44	52	30.37	0.00%							3.50%	1.06	0.02
Deionized H2O	52	30.37	0.00%							0.00%		
MMB **	85	49.64	0.00%							100.00%	49.64	0.99
DBE	85	49.64	0.00%							100.00%	49.64	0.99
DINP	26	15.18	0.00%							0.00%		
Raven 410	6	3.50	100.00%	3.50	0.02	0.00	99.5%	99.999%	0.00	0.00%		
Micropearl F36 **	70	40.88	70.00%	28.62	0.14	0.03	99.5%	99.999%	0.00	20.00%	8.18	0.16
Micropearl F48 **	50	29.20	75.00%	21.90	0.11	0.03	99.5%	99.999%	0.00	18.00%	5.26	0.11
Pencook 10	350	204.40	100.00%	204.40	1.02	0.23	99.5%	99.999%	0.01	0.00%		
Baricron 1040	1000	584.00	100.00%	584.00	2.92	0.67	99.5%	99.999%	0.01	0.00%		
HuberCarb Q200	5150	3007.60	100.00%	3007.60	15.04	3.43	99.5%	99.999%	0.08	0.00%		
Acrysol TT615	90	52.56	0.00%							0.00%		
Deionized H2O	52	30.37	0.00%							0.00%		
	13115	7659.16			**22.25**	**5.08**			**0.11**			**5.03**

[1] Tons/yr = lbs/batch * ((8760 hours/yr) / (7.5 hours/batch)) *(1 ton / 2000 lbs)
[2] AP-42 Section 6.4 Paints and Varishes was utilized as this mixing operation is similar
[3] PM emission factor = 0.5% of powder used emit per AP-42 Section 6.4.
The lower end of the range was used due to mixer being under vacuum during manual powder loading
[4] Assumed that worst-case 2% of solvent utilized in the process will be emitted per AP-42 Section 6.4.
[5] Fibra-web cartridge filter with nanofiber technology is 99.999% efficient per manufacturer

Worst Case PTE of PM/PM10 = 24.90 TPY
Worst Case PTE of VOC = 5.03 TPY

** denotes a new material (not in the already permitted formulation)…MSDS included with the application
Used worst case VOC from formulation AD-423A
Used worst case PM/PM10 from formulation AD-411A

Appendix A: Emissions Calculations
VOCs, Particulate, HAPs
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP No: M071-25726-00030
Reviewer: Swarna Prabha

Pollutant	PM*	PM10*	SO2	NOx**	VOC	CO	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lb/MMCF)	1.9	7.6	0.6	100	5.5	84.0	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission tons/yr PM*	PM10*	SO2	NOx**	VOC	CO	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Continuous Belt Brazing Furnace (ATHT002)	1	0.571	0.571	5.00	0.005	0.02	0.002	0.3	0.014	0.2	5.3E-06	3.0E-06	1.9E-04	4.5E-03	8.5E-06	1.3E-06	2.8E-06	3.5E-06	9.5E-07	5.3E-06
Brazing Furnace (ATHT003)	1	0.635	0.635	5.56	0.005	0.02	0.002	0.3	0.015	0.2	5.8E-06	3.3E-06	2.1E-04	5.0E-03	9.5E-06	1.4E-06	3.1E-06	3.9E-06	1.1E-06	5.8E-06
Rooftop Furnaces	13	0.570	7.410	64.91	0.062	0.25	0.019	3.2	0.179	2.7	6.8E-05	3.9E-05	2.4E-03	5.8E-02	1.1E-04	1.6E-05	3.6E-05	4.5E-05	1.2E-05	6.8E-05
Rooftop Furnace	1	0.010	0.010	0.09	8.3E-05	3.3E-04	2.6E-05	4.4E-03	2.4E-04	3.7E-03	9.2E-08	5.3E-08	3.3E-06	7.9E-05	1.5E-07	2.2E-08	4.8E-08	6.1E-08	1.7E-08	9.2E-08
Rooftop Furnaces	6	0.800	4.800	42.05	0.040	0.16	0.013	2.1	0.116	1.8	4.4E-05	2.5E-05	1.6E-03	3.8E-02	7.1E-05	1.1E-05	2.3E-05	2.9E-05	8.0E-06	4.4E-05
Rooftop Heating	9	0.570	5.130	44.94	0.043	0.17	0.013	2.2	0.124	1.9	4.7E-05	2.7E-05	1.7E-03	4.0E-02	7.6E-05	1.1E-05	2.5E-05	3.1E-05	8.5E-06	4.7E-05
Propeller Unit Heaters	2	0.100	0.200	1.75	1.7E-03	6.7E-03	5.3E-04	8.8E-02	4.8E-03	7.4E-02	1.8E-06	1.1E-06	6.6E-05	1.6E-03	3.0E-06	4.4E-07	9.6E-07	1.2E-06	3.3E-07	1.8E-06
Propeller Unit Heaters	6	0.400	2.400	21.02	0.020	0.08	0.006	1.1	0.058	0.9	2.2E-05	1.3E-05	7.9E-04	1.9E-02	3.6E-05	5.3E-06	1.2E-05	1.5E-05	4.0E-06	2.2E-05
Air Make-up Unit	1	0.400	0.400	3.50	0.003	0.01	0.001	0.2	0.010	0.1	3.7E-06	2.1E-06	1.3E-04	3.2E-03	6.0E-06	8.8E-07	1.9E-06	2.5E-06	6.7E-07	3.7E-06
Water Heater	1	0.030	0.030	0.26	2.5E-04	1.0E-03	0.000	1.3E-02	0.001	1.1E-02	2.8E-07	1.6E-07	9.9E-06	2.4E-04	4.5E-07	6.6E-08	1.4E-07	1.8E-07	5.0E-08	2.8E-07
Totals	**41**		**21.6**		**0.18**	**0.72**	**0.06**	**9.45**	**0.52**	**7.94**	**2.0E-04**	**1.1E-04**	**7.1E-03**	**1.7E-01**	**3.2E-04**	**4.7E-05**	**1.0E-04**	**1.3E-04**	**3.6E-05**	**2.0E-04**

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology
Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) / 2,000 lb/ton
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Abbreviations

PM = Particulate Matter	NOx = Nitrous Oxides	DCB = Dichlorobenzene	Cr = Chromium
PM10 = Particulate Matter (<10 um)	VOC - Volatile Organic Compounds	Pb = Lead	Mn = Manganese
SO2 = Sulfur Dioxide	CO = Carbon Monoxide	Cd = Cadmium	Ni = Nickel

Appendix A: Emissions Calculations
VOCs, Particulate, HAPs
Welding Operations

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP No.: 071-19647
Reviewer: Swarna Prabha

Particulate Matter (PM) and Hazardous Air Pollutants (HAPs)

PROCESS	Max. electrode consumption per	Max. electrode consumption per	Number of	Max. electrode consumption	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING	station (lbs/hr)	station (lbs/day)	Stations	(lbs/year)	PM = PM10	Cr	Mn	Ni	PM = PM10	Cr	Mn	Ni	
Gas Metal Arc Welding (ERNiCu)	2.75	66	7	168,630	2.0E-03	1.0E-06	2.2E-05	4.5E-04	3.9E-02	1.9E-05	4.2E-04	8.7E-03	9.1E-03
Gas Metal Arc Welding (ERNiCu)	8.25	198	1	72,270	2.00E-03	1.0E-06	2.2E-05	4.5E-04	1.7E-02	8.3E-06	1.8E-04	3.7E-03	3.9E-03
								Total Potential Emissions lbs/hr	0.06	2.8E-05	6.1E-04	0.01	1.3E-02
								Total Potential Emissions lbs/day	1.32	6.6E-04	0.01	0.30	0.31
								Total Potential Emissions tons/year	0.24	1.2E-04	2.6E-03	0.05	0.06

Abbreviations
Cr = Chromium
Mn = Manganese
Ni = Nickel

METHODOLOGY
*Emission Factors are default values for Gas Metal Arc Welding (GMAW) (SCC 3-09-052) Electrode Type ERNiCu, AP-42
Welding emissions, lb/hr: (# of stations) * (max. lbs of electrode used/hr/station) * (emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
Particulate Matter
Aluminum Anodizing Operation

Company Name: **AISIN Drivetrain, Inc.**
Address City IN Zip: **1001 Industrial Way, Crothersville, IN 47229**
MSOP No.: **071-25726-00030**
Reviewer: **Swarna Prabha**

There are no emission factors in EPA document AP-42 for sulfuric acid anodizing. AP-42 expressly states that chromic acid anodizing emission factors are not suitable
The manufacturer has supplied estimates of sulfuric acid mist emissions as follows:

F (grams/hr)	=	0.1675 * (100% - E) * I * W	
where E	=	0%	Electrical efficiency of the anodize process
I	=	2000	Amps applied
W	=	20%	Weight fraction H_2SO_4
F	=	67	gram/hr before control
	=	0.15	lb/hr before control
	=	0.65	ton/yr before control

The control device is rated at 99% efficiency for sulfuric acid > 20 micrometers and 95% overall:

0.65	ton/yr *	5%	emitted	=	0.03	ton/yr after control

The following calculations determine the emission limit under 326 IAC 6-3-2:

Emission Limit, E	=	4.1 * P^0.67	
where E	=	emissions in lbs/hr	
P	=	process weight in tons/hr	
P	=	600	lbs/hr
	=	0.3	ton/hr
E = 4.1 * (0.3^0.67)	=	1.83	lb/hr (will comply)
	=	8.02	ton/yr

Particulate (PM) emissions before controls is considerably less than the allowable emissions. PM emissions after controls is negligible. Therefore, the applicant will be in compliance with 326 IAC 6-3.

Appendix A: Emissions Calculations
VOCs
Degreasing Operations

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP No.: 071-25726-00030
Reviewer: Swarna Prabha

Volatile Organic Comounds (VOC) and Particulate Matter (PM)

Process	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Number of Degreasing Units	Gal of Mat. (gal/day) Per Unit	Total Gal of Mat. (gal/day)	Pounds VOC per gallon of degreaser less water	Pounds VOC per gallon of degreaser	Degreaser Recovered As Waste %	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)
Degreasing Operations (Kleen-Eze 315)	8.845	100.0%	92.0%	8.0%	0.0%	0.00%	16	0.125	2.0	0.71	0.71	50%	0.03	0.71	0.13
												Totals	**0.03**	**0.71**	**0.13**

Degreasing Operations include the following 16 Degreasing Units:

ATCL , 002, 003, 004, 005, 006, 007, 008, 009-01, 010, 011, 013, 014,
CCL 0015, 0016, 1000,
SCL1020

Kleen-Eze 315 is used as the degreasing fluid. Based on the MSDS and additional information obtained from the manufacturer (Miller Oil of Indiana, Inc.), Kleen-Eze 315 is a water based alkaline cleaner that contains two organic ingredients, ethanolamine (3% by weight) and triethanolamine (5% by weight), which are considered as volatile organic compounds (VOCs) as defined by 40CFR 51 Subpart F Section 51.100. Kleen-Eze 315 contains no HAPs

METHODOLOGY

Pounds of VOC per Gallon Degreaser less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Degreaser = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon degreaser (lb/gal) * Total Gal of Material (gal/day) * (100% - Degreaser Recovered as Waste %) / (24 hours/day)
Potential VOC Pounds per Day = Potential VOC Pounds per Hour * (24 hours/day)
Potential VOC Tons per Year = Potential VOC Pounds per Day * (365 days/yr) * (1 ton/2000 lbs)
Total = Worst Coating + Sum of all solvents used

No HAPs are present in the product being used

Appendix A: Emissions Calculations
Mineral spirit wash down parts

Company Name: AISIN Drivetrain, Inc.
Address City IN Zip: 1001 Industrial Way, Crothersville, IN 47229
MSOP Permit NO.: 071-25726-00030
Reviewer: Swarna Prabha

OMS Mineral Spirits Potential Emissions

	Usage [1]	Density	VOC wt%	VOC emissions	VOC emissions
OMS	gal/yr	lb/gal	%	lb/yr	ton/yr
	657	6.34	100%	4167.03	**2.08**

[1] Usage was determined by taking the maximum monthly usage (30 gallons/month) multiplied by the potential hours / actual hours (8760 / 4800)

note: OMS Mineral Spirits will be used in 32 oz spray bottles to wash down parts.