INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 1, 2005

RE: Goshen Coach, Inc. / 039-21669-00442

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, 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, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 1/10/05

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NEW SOURCE CONSTRUCTION PERMIT and MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

Goshen Coach, Inc.
25161 Leer Drive
Elkhart, Indiana 46514

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units 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 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 039-21669-00442	
Issued by: Origin signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:December 1, 2005 Expiration Date:December 1, 2010

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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 stationary motorized bus manufacturing plant.

Authorized Individual:	Dan Daniels, General Manager
Source Address:	25161 Leer Drive, Elkhart, IN 46514
Mailing Address:	1100 DI Drive, Elkhart, IN 46514
General Source Phone:	(574) 264-7511
SIC Code:	3713 (Manufacturing of Truck and Bus Bodies)
County Location:	Elkhart
Source Location Status:	Nonattainment area for ozone under the 8-hour standard Attainment area for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD and Emission Offset Minor Source, Section 112 of the Clean Air Act Not in 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

(a) one (1) welding and metal fabrication operation, designated as WMFD, to be constructed in 2005, which fabricates metal frames for motorized buses at a maximum capacity of 2,500 pounds of steel per hour and 500 pounds of aluminum per hour, venting to the indoors, and consisting of the following emission units:

(1) twenty-five (25) metal inert gas (MIG) welding stations, to be constructed in 2005, each with a maximum wire usage rate of 1.0 pounds of wire per hour (GMAW Wire Type E70S);

(2) two (2) stick welding stations, to be constructed in 2005, each with a maximum electrode usage rate of 0.125 pounds of electrode stick per hour (Electrode Type E5154);

(3) twenty-five (25) tungsten inert gas (TIG) welding stations, to be constructed in 2005, each with a maximum wire usage rate of 1.0 pounds of wire per hour (GMAW Wire Type E70S);

(4) four (4) oxyacetylene/electric arc flame cutting stations, designated at C1 through C4, to be constructed in 2005, each with a maximum metal thickness cut of 0.25 inches and a maximum metal cutting rate of 1.25 inches per minute;

(5) degreasing operations utilizing hand application of a non-halogenated organic solvent;

(b) one (1) laminating operation, to be constructed in 2005, consisting of two (2) laminating machines, designated as LD1 and LD2, for the lamination of door, roof, and sidewall frames using a urethane adhesive at a total material usage rate of 32.71 pounds of adhesive per hour, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, venting to the indoors;

(c) one (1) priming booth, designated as PB1, to be constructed in 2005, consisting of one (1) High Volume Low Pressure (HVLP) spray gun for application of a primer surface coating to metal floor frames at a maximum capacity of 1.15 bus frames per hour, controlled by dry filter, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and exhausting through stack S1;

(d) one (1) bus assembly operation, to be constructed in 2005, consisting of two assembly lines, designated as AL1 and AL2, with a total maximum capacity of 1.15 buses per hour, consisting of the following:

(1) two (2) adhesive applicators, to be constructed in 2005, utilizing low pressure, non-atomizing flow coating to apply an adhesive surface coating to wood and rubber surfaces, and venting to the indoors;

(2) hand application of caulks, sealants, adhesives, and aerosol application of primer and silicone to plastic, metal, rubber, and/or wood surfaces, with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and venting to the indoors;

(e) one (1) undercoating and foam application operation, designated as UFBLD, to be constructed in 2005, with a maximum capacity of 1.15 buses per hour, consisting of the following:

(1) two (2) undercoating applicators, to be constructed in 2005, utilizing low pressure, non-atomizing flow coating to apply an undercoating surface coating to metal surfaces, and venting to the indoors;

(2) two (2) urethane foam flow applicators, to be constructed in 2005, to inject foam into the underside of buses, and venting to the indoors;

(3) cleanup of the undercoating applicators and foam flow applicators utilizing hand or soak application of a non-halogenated organic solvent, and venting to the indoors;

(f) one (1) final finish operation, designated as FF, to be constructed in 2005, with a maximum capacity of 1.15 buses per hour, utilizing hand or soak application of non-halogenated organic solvent cleaners and degreasers to plastic, vinyl, and/or glass surfaces, and venting to the indoors;

(g) one (1) paint touchup booth, designated as TB1, to be constructed in 2005, consisting of two (2) airless spray guns for application of basecoat and clearcoat surface coatings to plastic at a maximum capacity of 1.15 bus frames per hour, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and exhausting through stack S2;

(h) one (1) woodworking operation, to be constructed in 2005, consisting of two (2) table saws for cutting of wood, designated as WW1 and WW2, with a total maximum throughput capacity of 166 pounds of lauan wood per hour and 460 pounds plywood per hour, with particulate emissions from WW1 controlled by one (1) baghouse dust collector, designated as DC1, and particulate emissions from WW2 controlled by one (1) baghouse dust collector, designated as DC2. DC1 and DC2 each have a control efficiency of 98% and a maximum design grain loading of less than or equal to 0.002 grain per actual cubic foot of outlet air, when operated at a maximum gas flow rate of one thousand five hundred (1,500) actual cubic feet per minute;

(i) eighteen (18) chop saws for cutting of metal, designated as CS1 through CS18, to be constructed in 2005, with no particulate control;

(j) two (2) miter saws for cutting of metal, designated as MS1 and MS2, to be constructed in 2005, with no particulate control;

(k) four (4) drill presses for drilling of metal, designated as DP1 through DP4, to be constructed in 2005, with no particulate control;

(l) eight (8) band saws for cutting of metal, designated as BS1 through BS8, to be constructed in 2005, with no particulate control;

(m) four (4) table saws for cutting of polystyrene foam insulation, designated as TS1 through TS4, to be constructed in 2005, with no particulate control;

(n) two (2) natural gas-fired furnaces, designated as H1 and H2, to be constructed in 2005, each rated at 0.05 MMBtu/hr, exhausting through stacks H1 and H2, respectively;

(o) one (2) natural gas-fired air makeup unit, designated as H3, to be constructed in 2005, rated at 2.9 MMBtu/hr, venting to the indoors;

(p) two (2) natural gas-fired furnaces, designated as H4 and H5, to be constructed in 2005, each rated at 0.105 MMBtu/hr, exhausting through stacks H4 and H5, respectively;

(q) two (2) natural gas-fired furnaces, designated as H6 and H7, to be constructed in 2005, each rated at 0.092 MMBtu/hr, exhausting through stacks H6 and H7, respectively;

(r) nineteen (19) natural gas-fired heaters, designated as H8 through H26, to be constructed in 2005, each rated at 0.105 MMBtu/hr, exhausting through stacks H8 through H26, respectively;

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

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.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit 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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.

(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and 326 IAC 2-2 or 326 IAC 2-3 and an Operation Permit Validation Letter is issued.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted 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) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

(d) 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.9 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 emissions unit:

(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
Indianapolis, Indiana 46204

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.10 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.

(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
Indianapolis, Indiana 46204

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

(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)]

(d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

B.11 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] [IC13-17-3-2][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 this title or the conditions of this permit or any operating permit revisions;

(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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(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.12 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ shall issue a revised permit.

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

B.13 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.14 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

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 construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM the fact that continuance of this permit is not consistent with purposes of 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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.5 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
Indianapolis, Indiana 46204

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 2-7-1(34).

(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

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

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. 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
Indianapolis, Indiana 46204

no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14 days) prior to the actual date.

(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 the 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.7 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

C.8 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.9 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.10 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.

C.11 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;

(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.

Record Keeping and Reporting Requirements

C.12 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.13 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 when operation begins.

C.14 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
Indianapolis, Indiana 46204

(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, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not 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 EMMISIONS UNITS OPERATION CONDITIONS

Facility Description: Surface Coating Operations

(b) one (1) laminating operation, to be constructed in 2005, consisting of two (2) laminating machines, designated as LD1 and LD2, for the lamination of door, roof, and sidewall frames using a urethane adhesive at a total material usage rate of 32.71 pounds of adhesive per hour, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, venting to the indoors;

(c) one (1) priming booth, designated as PB1, to be constructed in 2005, consisting of one (1) High Volume Low Pressure (HVLP) spray gun for application of a primer surface coating to metal floor frames at a maximum capacity of 1.15 bus frames per hour, controlled by dry filter, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and exhausting through stack S1;

(d) one (1) bus assembly operation, to be constructed in 2005, consisting of two assembly lines, designated as AL1 and AL2, with a total maximum capacity of 1.15 buses per hour, consisting of the following:

(1) two (2) adhesive applicators, to be constructed in 2005, utilizing low pressure, non-atomizing flow coating to apply an adhesive surface coating to wood and rubber surfaces, and venting to the indoors;

(2) hand application of caulks, sealants, adhesives, and aerosol application of primer and silicone to plastic, metal, rubber, and/or wood surfaces, with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and venting to the indoors;

(e) one (1) undercoating and foam application operation, designated as UFBLD, to be constructed in 2005, with a maximum capacity of 1.15 buses per hour, consisting of the following:

(1) two (2) undercoating applicators, to be constructed in 2005, utilizing low pressure, non-atomizing flow coating to apply an undercoating surface coating to metal surfaces, and venting to the indoors;

(2) two (2) urethane foam flow applicators, to be constructed in 2005, to inject foam into the underside of buses, and venting to the indoors;

(3) cleanup of the undercoating applicators and foam flow applicators utilizing hand or soak application of a non-halogenated organic solvent, and venting to the indoors;

(f) one (1) final finish operation, designated as FF, to be constructed in 2005, with a maximum capacity of 1.15 buses per hour, utilizing hand or soak application of non-halogenated organic solvent cleaners and degreasers to plastic, vinyl, and/or glass surfaces, and venting to the indoors;

(g) one (1) paint touchup booth, designated as TB1, to be constructed in 2005, consisting of two (2) airless spray guns for application of basecoat and clearcoat surface coatings to plastic at a maximum capacity of 1.15 bus frames per hour, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and exhausting through stack S2;

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

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Surface coating of wood with contact adhesive and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2), including dilution solvents, shall be limited to less than twenty-five (25) tons of VOC input per twelve (12) consecutive month period with compliance determined at the end of each month. Therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

D.1.2 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, for the metal surface coating operations in the Priming Booth (PB1), Bus Assembly Operation (AL1 and AL2), and Undercoating and Foam Deadening Operation (UFBLD), the owner or operator shall not allow the discharge into the atmosphere VOC in excess of:

(a) Three and five-tenths (3.5) pounds per gallon of coating, excluding water, delivered to a coating applicator, in a coating application system that is air dried.

(b) Three and five-tenths (3.5) pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.

D.1.3 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from equipment used in the surface coating of metal in the Priming Booth (PB1), Bus Assembly Operation (AL1 and AL2), and Undercoating and Foam Deadening Operation (UFBLD), during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.1.4 Particulate [326 IAC 6-3-2(d)]

(a) Particulate from priming booth PB1 shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

(b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 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.

D.1.7 VOC Emissions

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limits in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = \frac{\sum_{i=1}^{n}\left(C_i \times U_i\right)}{\sum_{i=1}^{n} U_i}$$

where: A is the volume weighted average in pounds VOC per gallon less water and exempt solvents as applied;
C is the VOC content of the coating *i* in pounds VOC per gallon less water and exempt solvents as applied;
U is the usage rate of the coating *i* in gallons per day less water and exempt solvents as applied; and
n is the number of coatings being averaged

If for a given day, all coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.2, then the Permittee shall not be required to perform the daily averaging calculation for that operation on that day.

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

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.1.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The amount of coating material and solvent less water used on monthly 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.

(3) The cleanup solvent usage for each month;

(4) The total VOC usage for each month; and

(5) The weight of VOCs emitted for each compliance period.

(b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.2.

(1) The VOC content of each coating material and solvent used;

(2) The amount of coating material and solvent less water used on daily basis;

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

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

(3) The volume weighted average VOC content of the coatings used for each day. If for a given day, all coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.2, then the Permittee shall not be required to maintain records of the volume weighted average VOC content of the coatings used in that operation on that day;

(4) The cleanup solvent usage for each day; and

(5) The total VOC usage for each day.

(c) To document compliance with Condition D.1.4 the Permittee shall maintain a record of any actions taken if overspray is visibly detected.

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

D.1.10 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 UNITS OPERATION CONDITIONS

Facility Description: Woodworking Operations

(h) one (1) woodworking operation, to be constructed in 2005, consisting of two (2) table saws for cutting of wood, designated as WW1 and WW2, with a total maximum throughput capacity of 166 pounds of lauan wood per hour and 460 pounds plywood per hour, with particulate emissions from WW1 controlled by one (1) baghouse dust collector, designated as DC1, and particulate emissions from WW2 controlled by one (1) baghouse dust collector, designated as DC2. DC1 and DC2 each have a control efficiency of 98% and a maximum design grain loading of less than or equal to 0.002 grain per actual cubic foot of outlet air, when operated at a maximum gas flow rate of one thousand five hundred (1,500) actual cubic feet per minute;

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

Emission Limitations and Standards

D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the combined particulate emissions from the woodworking operation (WW1 and WW2) shall not exceed 1.88 pounds per hour based on a process weight rate equal to 626 pounds of wood per hour.

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

Interpolation of the data for the process weight rate up to 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

Compliance Determination Requirements

D.2.2 Particulate Control

In order to comply with Condition D.2.1:

(a) the baghouse dust collector DC1 shall be in operation and control emissions from table saw WW1 at all times that table saw WW1 is in operation; and

(b) the baghouse dust collector DC2 shall be in operation and control emissions from table saw WW2 at all times that table saw WW2 is in operation.

(c) In the event that bag failure is observed in a multi-compartment baghouse, 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.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

MSOP Quarterly Report

Source Name: Goshen Coach, Inc.
Source Address: 25161 Leer Drive, Elkhart, IN 46514
Mailing Address: 1100 DI Drive, Elkhart, IN 46514
MSOP No.: 039-21669-00442
Facility: Surface coating of wood with contact adhesive and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2)
Parameter: VOC Input
Limit: Less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Input This Month (tons)	VOC Input Previous 11 Months (tons)	VOC Input 12 Month Total (tons)
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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:	**Goshen Coach, Inc.**
Address:	**25161 Leer Drive**
City:	**Elkhart, Indiana 46514**
Phone #:	**(574) 264-7511**
MSOP #:	**039-21669-00442**

I hereby certify that Goshen Coach, Inc. is
☐ still in operation.
☐ no longer in operation.

I hereby certify that Goshen Coach, Inc. is
☐ in compliance with the requirements of MSOP 039-21669-00442.
☐ not in compliance with the requirements of MSOP 039-21669-00442.

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 - 317 233-5967

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 ?_____, 100TONS/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:

_____

_____

_____

_____

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

Goshen Coach, Inc.
25161 Leer Drive
Elkhart, Indiana 46514

Affidavit of Construction

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

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

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

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that Goshen Coach, Inc., located at 25161 Leer Drive, Elkhart, Indiana 46514, completed construction of the stationary motorized bus manufacturing plant on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on August 23, 2005 and as permitted pursuant to the Minor Source Operating Permit (MSOP) No. 039-21669-00442 issued on _____.

5. Additional _____ were constructed/substituted as described in the attachment to this document
(operations/facilities)
and were not made in accordance with the construction permit. (Delete this statement if it does not apply.)

Further Affiant said not.

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

_____.
Signature

_____.
Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____ .

My Commission expires: _____.

_____.
Signature

_____.
Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD) for a New Source Construction Permit and Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	**Goshen Coach, Inc.**
Source Location:	**25161 Leer Drive, Elkhart, IN 46514**
County:	**Elkhart**
SIC Code:	**3713 (Manufacturing of Truck and Bus Bodies)**
Application No.:	**039-21669-00442**
Reviewer:	**Nathan C. Bell**

On October 7, 2005, the Office of Air Quality (OAQ) had a notice published in The Goshen News, Goshen, Indiana, stating that Goshen Coach, Inc. had applied for a New Source Construction Permit and Minor Source Operating Permit (MSOP) to operate stationary motorized bus manufacturing plant, located at 25161 Leer Drive, Elkhart, IN 46514. The notice also stated that the OAQ proposed to issue a MSOP for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

The following comments were submitted to IDEM, OAQ on the draft MSOP. NOTE: The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes.

Comments and Responses

On October 27, 2005, W. Todd Woelfer of May Oberfell Lorber submitted comments on the draft MSOP. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1: As proposed, Condition D.1.9 requires an average calculation to be performed on a daily basis. The source requests that this provision be amended to include language indicating that in the event that all coating materials comply with 326 IAC 8-2-9, then the daily averaging calculations are not required. The source submits that such an amendment is consistent with 326 IAC 8-1-2(a)(7).

Response to Comment 1: As requested by the Permittee, the MSOP permit has been revised as follows:

D.1.~~8~~**9** Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limit**s** in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = \frac{\sum_{i=1}^{n}(C_i \times U_i)}{\sum_{i=1}^{n} U_i}$$

where: A is the volume weighted average in pounds VOC per gallon less water and exempt solvents as applied;
C is the VOC content of the coating *i* in pounds VOC per gallon less water and exempt solvents as applied;
U is the usage rate of the coating *i* in gallons per day less water and exempt solvents as applied; and
n is the number of coatings being averaged

If for a given day, all coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.2, then the Permittee shall not be required to perform the daily averaging calculation for that operation on that day.

Comment 2: Goshen Coach requests removal of Condition D.1.6 of the permit which requires that a Performance Test be conducted to confirm the emission estimates of isocyanates from the application of the adhesive of the Panel Laminating Area and from the foam in the Undercoating Building. Goshen Coach respectfully submits that alternative methods for estimating the emissions are available and more applicable to its permit. Goshen Coach has utilized an EPA approved emission estimation calculation to estimate the emissions in its permit application, namely the method of calculation published by the Alliance for the Polyurethane Industry or "API". The API emission estimation calculation is accepted by the EPA for the purpose of estimating the isocyanate releases subject to the reporting requirements of the Emergency Planning and Community Right to Know Act ("EPCRA"), section 313. Because the method of estimating the emissions of isocyanates from the adhesives in the Panel Laminating Area and the foam in the Undercoating Building is based upon an EPA approved method, Goshen Coach respectfully submits that this method is consistent with IDEM's accepted evaluation criteria which include performance testing, use of an EPA approved emission factor or the assumption of a worse case scenario. In this instance, the costs of performing such a test is unwarranted given that the calculations submitted with the application are consistent with a recognized and accepted method of estimating emissions. The method used by Goshen Coach is an accepted method, negating the need for Performance Testing. As such, Goshen Coach respectfully requests that the requirements contained under Condition D.1.6 be deleted from the proposed MSOP.

Response to Comment 2:

IDEM, OAQ has determined that the Alliance for the Polyurethane Industry (API) guidance document entitled "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry" does not contain actual emission test data that is needed to verify the emissions predicted by methodology in the document. Therefore, if the API guidance document methodology is used to estimate emissions, then a one time performance test would be required as currently specified in Condition D.1.6.

The source has agreed to estimate the potential to emit volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) from the production and processing of urethane adhesives and foam in the Panel Laminating Operation (LD1 and LD2) and Undercoating & Foam Deadening Operation (UFBLD) using guidance published by the Environmental Protection Agency (EPA) entitled, "Risk Management Program Guidance for Offsite Consequence Analysis, EPA-550-B-99-009, April 1999" (see Appendix D, Section D.2.1). The EPA methodology estimates the worse case release rate for liquids from a spill based on the vapor pressure of the VOC/HAP and the process temperature. Using the EPA methodology, the potential to emit VOCs/HAPs was calculated by IDEM OAQ to be 0.012 tons per year (see TSD Addendum Appendix A). Since the potential to emit VOCs/HAPs is negligible, a one-time performance test will not be required. The MSOP permit has been revised as follows:

~~D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]~~

~~Within one hundred and eighty (180) days after issuance of this permit, the Permittee must perform an initial one time performance test for the uncontrolled emissions from the production and processing of urethane adhesives and foam in the Panel Laminating Operation (LD1 and LD2) and Undercoating & Foam Deadening Operation (UFBLD) in order to verify the emission factors. The test method shall utilize methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.~~

The conditions in Section D.1 will be renumbered as necessary.

Comment 3: Goshen Coach requests that the requirements of Condition D.1.10(b) be modified to include an exception from the daily record keeping requirements in the event that all of the coating materials utilized by Goshen Coach satisfy the limitations of 326 IAC 8-2-9 (limiting the VOC per gallon of coating less water and exempt solvents to 3.5).

Response to Comment 3: As requested by the Permittee, the MSOP permit has been revised as follows:

D.1.~~9~~**10** Record Keeping Requirements

(b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.2.

(1) The VOC content of each coating material and solvent used;

(2) The amount of coating material and solvent less water used on daily basis;

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

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

(3) The volume weighted average VOC content of the coatings used for each day. **If for a given day, all coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.2, then the Permittee shall not be required to maintain records of the volume weighted average VOC content of the coatings used in that operation on that day**;

(4) The cleanup solvent usage for each day; and

(5) The total VOC usage for each day.

On November 7, 2005, Paul Karkiewicz of IDEM, OAQ submitted comments on the draft MSOP. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1: Condition B.7 states that "The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permits Administration & Development Section." However, an Affidavit of Construction is not attached to the Draft MSOP.

Response to Comment 1: The MSOP permit has been revised as follows to include an Affidavit of Construction:

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

Goshen Coach, Inc.
25161 Leer Drive
Elkhart, Indiana 46514

Affidavit of Construction

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

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

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

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that Goshen Coach, Inc., located at 25161 Leer Drive, Elkhart, Indiana 46514, completed construction of the stationary motorized bus manufacturing plant on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on August 23, 2005 and as permitted pursuant to the Minor Source Operating Permit (MSOP) No. 039-21669-00442 issued on _____.

5. Additional _____ were constructed/substituted as described in the attachment to this document
(operations/facilities)
and were not made in accordance with the construction permit. (Delete this statement if it does not apply.)

Further Affiant said not.

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

_____.
Signature

_____.
Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____ .

My Commission expires: _____.

_____.
Signature

_____.
Name (typed or printed)

Additional Changes

Upon further review, IDEM, OAQ has decided to make the following revisions to the permit with deleted language as ~~strikeouts~~ and new language **bolded**.

1. Conditions B.9, D.1.10, and D.2.7

IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Section B – Preventive Maintenance and made other minor revisions as follows:

B.9 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 ~~(this time frame is determined on a case by case basis but no more than ninety (90) days)~~ after issuance of this permit, including the following information on each emissions unit:

(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
Indianapolis, Indiana 46204

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

~~(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.~~

(**b**~~c~~) A copy of the PMP's 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 PMP**s** whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP**s** do~~es~~ not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(**c**~~d~~) 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.

D.1.~~9~~10 Record Keeping Requirements

~~(d) To document compliance with Conditions D.1.5, the Permittee shall maintain a log of those additional inspections prescribed by the Preventive Maintenance Plan.~~

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

D.2.7 Record Keeping Requirements

~~(c) To document compliance with Condition D.2.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

2. Condition C.10

IDEM realizes that these specifications can only be practically applied to analog units, and has therefore clarified the condition to state that the condition only applies to analog units. Upon further review, IDEM has also determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the accuracy requirements have been removed from the condition.

C.10 ~~Pressure Gauge and Other~~ Instrument Specifications [326 IAC 2-1.1-11]

(a) ~~Whenever a condition in this permit requires the measurement of total static pressure drop across any part of the unit or its control device, the gauge employed~~ **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 ~~normal~~ **maximum** reading **for the normal range** shall be no less than twenty percent (20%) of full scale~~ and be accurate within plus or minus two percent (2%) of full scale reading~~.

~~(b) Whenever a condition in this permit requires the measurement of a (temperature or flow rate), the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.~~

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

3. Condition C.11

IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan. The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. The Section D conditions that refer to this condition have been revised to reflect the new condition title, and the following changes have been made to the Section C condition:

C.11 ~~Compliance Response Plan - Preparation and Implementation~~
Response to Excursions or Exceedances

~~(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ, upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:~~

~~(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.~~

~~(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.~~

~~(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:~~

~~(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or~~

~~(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.~~

~~(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.~~

~~(4) Failure to take reasonable response steps shall be considered a deviation from the permit.~~

~~(c) The Permittee is not required to take any further response steps for any of the following reasons:~~

~~(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.~~

~~(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.~~

~~(3) An automatic measurement was taken when the process was not operating.~~

~~(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.~~

~~(d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~

(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;

(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.

4. Conditions D.2.2 through D.2.7

Upon further review of the permit and the associated Technical Support Document, it was determined by OAQ that compliance monitoring is not required for the baghouse dust collectors controlling the woodworking operations (WW1 and WW2), since the particulate matter emissions from each of the woodworking operations (WW1 and WW2) do not warrant monitoring. Therefore, the requirements and conditions of Section D.2.2 and Sections D.2.4 through D.2.6 are not applicable to the source.

A requirement has been added to Condition D.2.3 requiring the Permittee to notify IDEM if a

broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition. The permit has been revised as follows:

~~D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]~~

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the woodworking equipment (WW1 and WW2) and control devices.~~

Compliance Determination Requirements

D.2.**2**~~3~~ Particulate Control

In order to comply with Condition D.2.1:

(a) the baghouse dust collector DC1 shall be in operation and control emissions from table saw WW1 at all times that table saw WW1 is in operation; and

(b) the baghouse dust collector DC2 shall be in operation and control emissions from table saw WW2 at all times that table saw WW2 is in operation.

(c) In the event that bag failure is observed in a multi-compartment baghouse, 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 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**~~

~~D.2.4 Visible Emissions Notations~~

~~(a) Daily visible emission notations of the stack exhaust from the woodworking operation (WW1 and WW2) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.~~

~~D.2.5 Baghouse Inspections~~

~~An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.~~

~~D.2.6 Broken or Failed Bag Detection~~

~~In the event that bag failure has been observed:~~

~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.~~

~~(b) For single compartment baghouses/dust collectors, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.~~

~~Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]~~

~~D.2.7 Record Keeping Requirements~~

~~(a) To document compliance with Conditions D.2.4, the Permittee shall maintain records of daily visible emission notations of the stack exhaust from the woodworking operation (WW1 and WW2).~~

~~(b) To document compliance with Condition D.2.5, the Permittee shall maintain records of results of inspections required under Condition D.2.5 and the dates vents are redirected.~~

~~(c) To document compliance with Condition D.2.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a New Source Construction Permit and Minor Source Operating Permit

Source Background and Description

Source Name:	**Goshen Coach, Inc.**
Source Location:	**25161 Leer Drive, Elkhart, IN 46514**
County:	**Elkhart**
SIC Code:	**3713 (Manufacturing of Truck and Bus Bodies)**
Application No.:	**039-21669-00442**
Reviewer:	**Nathan C. Bell**

Goshen Coach, Inc. was issued a Registration #039-21722-00442 on September 9, 2005 for a stationary motorized bus manufacturing plant. On August 23, 2005, the Office of Air Quality (OAQ) received an application from Goshen Coach, Inc. relating to the construction and operation of additional emission units at the source and an increase in the maximum capacity within each of the operational areas of the plant. Overall, the total capacity of the plant will increase from 0.15 buses per hour to 1.15 buses per hour. For this Technical Support Document (TSD), all emission units at this source (i.e., the additional emission units and those previously permitted under Registration #039-21722-00442) are being considered as new construction subject to New Source Review permitting requirements, since they are all being constructed concurrently as part of the same project.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following:

(a) one (1) welding and metal fabrication operation, designated as WMFD, to be constructed in 2005, which fabricates metal frames for motorized buses at a maximum capacity of 2,500 pounds of steel per hour and 500 pounds of aluminum per hour, venting to the indoors, and consisting of the following emission units:

(1) twenty-five (25) metal inert gas (MIG) welding stations, to be constructed in 2005, each with a maximum wire usage rate of 1.0 pounds of wire per hour (GMAW Wire Type E70S);

(2) two (2) stick welding stations, to be constructed in 2005, each with a maximum electrode usage rate of 0.125 pounds of electrode stick per hour (Electrode Type E5154);

(3) twenty-five (25) tungsten inert gas (TIG) welding stations, to be constructed in 2005, each with a maximum wire usage rate of 1.0 pounds of wire per hour (GMAW Wire Type E70S);

(4) four (4) oxyacetylene/electric arc flame cutting stations, designated at C1 through C4, to be constructed in 2005, each with a maximum metal thickness cut of 0.25 inches and a maximum metal cutting rate of 1.25 inches per minute;

(5) degreasing operations utilizing hand application of a non-halogenated organic solvent;

(b) one (1) laminating operation, to be constructed in 2005, consisting of two (2) laminating machines, designated as LD1 and LD2, for the lamination of door, roof, and sidewall frames using a urethane adhesive at a total material usage rate of 32.71 pounds of adhesive per hour, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, venting to the indoors;

(c) one (1) priming booth, designated as PB1, to be constructed in 2005, consisting of one (1) High Volume Low Pressure (HVLP) spray gun for application of a primer surface coating to metal floor frames at a maximum capacity of 1.15 bus frames per hour, controlled by dry filter, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and exhausting through stack S1;

(d) one (1) bus assembly operation, to be constructed in 2005, consisting of two assembly lines, designated as AL1 and AL2, with a total maximum capacity of 1.15 buses per hour, consisting of the following:

(1) two (2) adhesive applicators, to be constructed in 2005, utilizing low pressure, non-atomizing flow coating to apply an adhesive surface coating to wood and rubber surfaces, and venting to the indoors;

(2) hand application of caulks, sealants, adhesives, and aerosol application of primer and silicone to plastic, metal, rubber, and/or wood surfaces, with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and venting to the indoors;

(e) one (1) undercoating and foam application operation, designated as UFBLD, to be constructed in 2005, with a maximum capacity of 1.15 buses per hour, consisting of the following:

(1) two (2) undercoating applicators, to be constructed in 2005, utilizing low pressure, non-atomizing flow coating to apply an undercoating surface coating to metal surfaces, and venting to the indoors;

(2) two (2) urethane foam flow applicators, to be constructed in 2005, to inject foam into the underside of buses, and venting to the indoors;

(3) cleanup of the undercoating applicators and foam flow applicators utilizing hand or soak application of a non-halogenated organic solvent, and venting to the indoors;

(f) one (1) final finish operation, designated as FF, to be constructed in 2005, with a maximum capacity of 1.15 buses per hour, utilizing hand or soak application of non-halogenated organic solvent cleaners and degreasers to plastic, vinyl, and/or glass surfaces, and venting to the indoors;

(g) one (1) paint touchup booth, designated as TB1, to be constructed in 2005, consisting of two (2) airless spray guns for application of basecoat and clearcoat surface coatings to plastic at a maximum capacity of 1.15 bus frames per hour, and with cleanup operations utilizing hand or soak application of a non-halogenated organic solvent, and exhausting through stack S2;

(h) one (1) woodworking operation, to be constructed in 2005, consisting of two (2) table saws for cutting of wood, designated as WW1 and WW2, with a total maximum throughput capacity of 166 pounds of lauan wood per hour and 460 pounds plywood per hour, with particulate emissions from WW1 controlled by one (1) baghouse dust collector, designated as DC1, and particulate emissions from WW2 controlled by one (1) baghouse dust collector, designated as DC2. DC1 and DC2 each have a control efficiency of 98% and a maximum design grain loading of less than or equal to 0.002 grain per actual cubic foot of outlet air, when operated at a maximum gas flow rate of one thousand five hundred (1,500) actual cubic feet per minute;

(i) eighteen (18) chop saws for cutting of metal, designated as CS1 through CS18, to be constructed in 2005, with no particulate control;

(j) two (2) miter saws for cutting of metal, designated as MS1 and MS2, to be constructed in 2005, with no particulate control;

(k) four (4) drill presses for drilling of metal, designated as DP1 through DP4, to be constructed in 2005, with no particulate control;

(l) eight (8) band saws for cutting of metal, designated as BS1 through BS8, to be constructed in 2005, with no particulate control;

(m) four (4) table saws for cutting of polystyrene foam insulation, designated as TS1 through TS4, to be constructed in 2005, with no particulate control;

(n) two (2) natural gas-fired furnaces, designated as H1 and H2, to be constructed in 2005, each rated at 0.05 MMBtu/hr, exhausting through stacks H1 and H2, respectively;

(o) one (2) natural gas-fired air makeup unit, designated as H3, to be constructed in 2005, rated at 2.9 MMBtu/hr, venting to the indoors;

(p) two (2) natural gas-fired furnaces, designated as H4 and H5, to be constructed in 2005, each rated at 0.105 MMBtu/hr, exhausting through stacks H4 and H5, respectively;

(q) two (2) natural gas-fired furnaces, designated as H6 and H7, to be constructed in 2005, each rated at 0.092 MMBtu/hr, exhausting through stacks H6 and H7, respectively;

(r) nineteen (19) natural gas-fired heaters, designated as H8 through H26, to be constructed in 2005, each rated at 0.105 MMBtu/hr, exhausting through stacks H8 through H26, respectively;

Permitted Emission Units and Pollution Control Equipment

For this Technical Support Document (TSD), all emission units at this source (i.e., the additional emission units and those previously permitted under Registration #039-21722-00442) are being considered as new construction subject to New Source Review permitting requirements, since they are all being constructed concurrently as part of the same project.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source was issued a Registration #039-21722-00442 on September 9, 2005.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (^{o}F)
H1 – H2	Natural Gas-Fired Furnaces	20.0	0.5	1,500	500
H4 – H7	Natural Gas-Fired Furnaces	20.0	0.5	1,500	500
H8 – H26	Natural Gas-Fired Heaters	20.0	0.33	1,500	500
S1	Priming Booth PB1	23.0	2.5	15,000	77
S2	Paint Touchup Booth TB1	23.0	2.5	15,000	77

Recommendation

The staff recommends to the Commissioner that the application be approved as an MSOP. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on August 23, 2005. Additional information was submitted by the source by email on September 6, 2005 and September 30, 2005.

Emission Calculations

(a) See Appendix A of this TSD for detailed emissions calculations (Appendix A, pp. 1-8).

(b) To estimate the potential emissions of methylene diphenyl diisocyanate (MDI) (HAP/VOC) from the production and processing of urethane adhesives and foam in the Panel Laminating Operation (LD1 and LD2) and Undercoating & Foam Deadening Operation (UFBLD), the source utilized the methodology contained in the guidance document entitled “MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry, The Alliance for the Polyurethanes Industry (API), 2004” (see Appendix A for potential emission calculations for MDI from LD1, LD2, and UFBLD). Since there are no AP-42 Emission Factors (EF) specific to these processes, an initial one time performance test will be required to verify the emission factors for MDI specific to these processes (See Testing Requirements).

(c) Based on information provided by the source, there are negligible emissions of particulate matter (PM/PM10) from the metal cutting equipment at this source (i.e., the nine (9) chop saws (CS1 through CS9), the one (1) miter saw (MS1), the two (2) drill presses (DP1 and DP2), and the four (4) band saws (BS1 through BS4)) and from the foam cutting equipment (i.e., the two (2) table saws (TS1 and TS2)).

Potential To Emit

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

Pollutant	Potential To Emit (tons/year)
PM	22.39
PM-10	22.52
SO_2	0.01
NO_x	2.36
VOC	77.18
CO	1.98

HAPs	Potential To Emit (tons/year)
Glycol Ethers	3.96
Methanol	1.98
Methyl Ethyl Ketone	0.71
Methyl Isobutyl Ketone	0.71
Ethylbenzene	0.57
Ethylene Glycol	0.58
Naphthalene	0.63
Xylene	3.18
Methylene diphenyl diisocyanate	negligible
Benzene	negligible
Dichlorobenzene	negligible
Formaldehyde	negligible
n-Hexane	0.04
Toluene	4.43
Lead	negligible
Cadmium	negligible
Chromium	0.32
Cobalt	0.01
Manganese	0.09
Nickel	3.0E-04
TOTAL HAPs	**17.15**

(a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of particulate matter (PM/PM10) and volatile organic compounds (VOCs) is 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 one hundred (100) 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 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, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM10	Attainment or Unclassifiable
PM2.5	Attainment or Unclassifiable
SO_2	Attainment
NO_2	Attainment or Unclassifiable
1-Hour Ozone	Maintenance Attainment
8-Hour Ozone	Basic Nonattainment
CO	Attainment or Unclassifiable
Lead	Attainment or Unclassifiable

(a) 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 the ozone standard. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Elkhart 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 PM 2.5 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 surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.

(c) Elkhart County has been classified as attainment or unclassifiable for all the other regulated criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit of Source After Issuance

The source requested that surface coating of wood with contact adhesive and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2) be limited to less than twenty-five (25) tons of VOC input per twelve (12) consecutive month period. This limit will render the requirements of 326 IAC 8-1-6 not applicable. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of the MSOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit After Issuance (tons/year)							
Operation/Process	PM	PM-10	SO_2	NO_X	VOC	CO	Total HAPs	Worst HAP
Welding & Flame Cutting	1.26	1.26	--	--	--	--	0.07	0.07
Metal Surface Coating Specifically Regulated by 326 IAC 8-2-9	0.78(1)	0.78(1)	--	--	36.22	--	17.11	4.43 (toluene)
Other Operations Not Specifically Regulated by 326 IAC 8-2-9	0.63	0.63	--	--	less than 35.02(2)	--		
Panel Laminating and Foam Undercoating	--	--	--	--	negl.	--	negl.	negl.
Wood Working Operations	0.23(1)	0.23(1)	--	--	--	--	--	--
Metal and Foam Cutting	negl.	negl.	--	--	--	--	--	--
Natural Gas Combustion	0.04	0.18	0.01	2.36	0.13	1.98	0.04	0.04
Total PTE After Issuance	2.94	3.07	0.01	2.36	less than 71.37(2)	1.98	17.15	4.43 (toluene)
Title V Major Threshold Level	NA	100	100	100	100	100	25	10
PSD Major Threshold Level	250	250	250	NA	NA	250	NA	NA
Emission Offset Major Threshold Level	NA	NA	NA	100	100	NA	NA	NA

NA = Not applicable; negl. = negligible

(1) Potential to emit after controls.

(2) In order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the source requested that surface coating of wood with contact adhesive and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2) be limited to less than twenty-five (25) tons of VOC input per twelve (12) consecutive month period. This limit does not apply to VOC emissions from surface coating of metal performed in the Bus Assembly Operation (AL1 and AL2), since it is specifically regulated by 326 IAC 8-2-9 (See Appendix A Page 3 of 8).

(a) This new source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(b) This new source is not a Emission Offset major stationary source because no regulated nonattainment pollutant is emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the PTE of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on the potential to emit calculations of the source (see Appendix A).

Federal Rule Applicability

(a) This source is not subject to the requirements of the New Source Performance Standards (NSPS), 40 CFR 60, Subpart MM, Automobile and Light Duty Truck Surface Coating Operations (40 CFR Parts 60.390 - 60.398) (326 IAC 12), because this source is not a major source for HAPs as defined in 40 CFR 63.2 and is not involved in the surface coating of automobiles or light duty trucks. This source assembles motorized buses.

(b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

(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) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart JJ, Wood Furniture Manufacturing (40 CFR Part 63.800 - 63.808) (326 IAC 20-14-1), because this source is not a major source of HAPs as defined in 40 CFR 63.2 and does not manufacture wood furniture or wood furniture components.

(e) This source is not subject to the requirements of 40 CFR 63 Subpart III (63.1290 through 63.1309) - NESHAPs: Flexible Polyurethane Foam Production (326 IAC 20-22-1), because this source is not a major source of HAPs as defined in 40 CFR 63.2.

(f) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart IIII, Surface Coating of Automobiles and Light-Duty Trucks (40 CFR Part 63.3080 - 63.3176), because this source is not a major source of HAPs as defined in 40 CFR 63.2 and does not surface coat automobiles or light duty trucks as defined by 63.3176. This source assembles motorized buses.

(g) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart MMMM, Surface Coating of Miscellaneous Metal Parts and Products (40 CFR Part 63.3880 - 63.3981), because this source is not a major source of HAPs as defined in 40 CFR 63.2.

(h) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart PPPP, Surface Coating of Plastic Parts and Products (40 CFR Part 63.4480 - 63.4581), because the source is not a major source of HAPs as defined in 40 CFR 63.2.

(i) This source is not subject to the requirements of 40 CFR 63, Subpart DDDDD, (63.7480 through 63.7575), NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters, because the source is not a major source of HAPs as defined in 40 CFR 63.2.

(j) This source is not subject to the requirements of 40 CFR 63 Subpart MMMMM (63.8780 through 63.8830) - NESHAPs: Flexible Polyurethane Foam Fabrication Operation (326 IAC 20-66-1), because this source does not perform fabrication of flexible polyurethane foam as defined by 40 CFR 63.8782.

(k) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.

State Rule Applicability - Entire Source

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

This entire source will commence construction in 2005, after the applicability date of August 7, 1977, however, it is not one of the 28 listed source categories defined in 326 IAC 2-2-1(y)(1), no major modifications were done to this source, and the uncontrolled potential to emit of all attainment regulated pollutants is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

326 IAC 2-3 (Emission Offset)

The requirements of 326 IAC 2-3 (Emission Offset) apply to major sources or major modifications constructed in an area designated as non-attainment. The uncontrolled potential to emit of VOC and NOx are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) are not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The requirements of 326 IAC 2-4.1 are not applicable to this source, since 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.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Elkhart County, it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year.

326 IAC 5-1 (Opacity Limitations)

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

(a) Opacity shall not exceed an average of forty percent (40%) 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.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

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 - Individual Facilities

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

(a) The requirements of 326 IAC 8-1-6 are not applicable to each of the metal surface coating operations in the Priming Booth (PB1), Bus Assembly Operation (AL1 and AL2), and Undercoating & Foam Deadening Operation (UFBLD), since each of these operations are specifically regulated by 326 IAC 8-2-9 (See below for 326 IAC 8-2-9 applicability to Surface Coating Operations).

(b) The source requested that surface coating of wood with contact adhesive and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2) be limited to less than twenty-five (25) tons of VOC input per twelve (12) consecutive month period. This limit will render the requirements of 326 IAC 8-1-6 not applicable. This limit does not apply to VOC emissions from surface coating of metal performed in the Bus Assembly Operation (AL1 and AL2), since it is specifically regulated by 326 IAC 8-2-9.

(c) The requirements of 326 IAC 8-1-6 are not applicable to each of the other operations at this source, since they each have do not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

State Rule Applicability - Welding Equipment

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

(a) Pursuant to 326 IAC 6-3-1(b)(9), the twenty-five (25) metal inert gas (MIG) welding stations, the two (2) stick welding stations, and the twenty-five (25) tungsten inert gas (TIG) welding stations are each exempt from the requirements of 326 IAC 6-3, because the potential to consume welding wire is less than six hundred twenty-five (625) pounds per day.

(b) Pursuant to 326 IAC 6-3-1(b)(9), the four (4) oxyacetylene/electric arc flame cutting stations are each exempt from the requirements of 326 IAC 6-3, because the maximum capacity of the torch cutting operation is less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less is cut.

State Rule Applicability - Surface Coating Operations

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

(a) Priming Operations in Priming Booth PB1

Application of a primer surface coating in priming booth PB1 using in the one (1) High Volume Low Pressure (HVLP) spray gun has potential particulate emissions that are greater than five hundred fifty-one thousandths (0.551) pound per hour and has the potential to use greater than five (5) gallons per day of surface coatings. Therefore, the requirements of 326 IAC 6-3-2 are applicable to the priming operation in PB1. Pursuant to 326 IAC 6-3-2(d), particulate from priming booth PB1 shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

(c) Pursuant to 326 IAC 6-3-1(b)(14), all other surface coating activities are each exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are each less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 8-2-2 (Volatile Organic Compounds, Automobile and Light Duty Truck Coating Operations)

The requirements of 326 IAC 8-2-2 are not applicable to this source, since this source does not perform surface coating of automobiles or light duty trucks as defined in 326 IAC 8-2-2(a). This source assembles motorized buses.

326 IAC 8-2-9 (Volatile Organic Compounds, Miscellaneous Metal Coating Operations)

Pursuant to 326 IAC 8-2-1 (Applicability), this rule applies to facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls.

(a) The requirements of 326 IAC 8-2-9 are not applicable to each of the degreasing and cleanup solvent activities, since usage of degreasing and cleanup solvents are not considered application of surface coatings, which are defined as protective, functional, or decorative films (326 IAC 8-1-0.5(c)), and since they each have actual VOC emissions less than fifteen (15) pounds per day before add-on controls.

(b) The requirements of 326 IAC 8-2-9 are not applicable to the surface coating of wood with contact adhesive in the Bus Assembly Operation (AL1 and AL2), since it does not include surface coating of metal.

(c) The requirements of 326 IAC 8-2-9 are not applicable to the surface coating of plastic or vinyl in the Final Finish Operation (FF), since it does not include surface coating of metal.

(d) The requirements of 326 IAC 8-2-9 are not applicable to the surface coating of plastic in the Paint Touchup Booth (TB1), since it does not include surface coating of metal.

(e) Pursuant to 8-2-1(a)(4) and 8-2-9(a)(5), the requirements of 326 IAC 8-2-9 are applicable to the metal surface coating operations in the Priming Booth (PB1), Bus Assembly Operation (AL1 and AL2), and Undercoating & Foam Deadening Operation (UFBLD), since these operations will be constructed after July 1, 1990 and have the actual VOC emissions greater than fifteen (15) pounds per day before add-on controls, and since each of the operations include surface coating of metal parts or products under the Standard Industrial Classification Code of major group #37.

Pursuant to 326 IAC 8-2-9(d), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of the following:

(1) Three and five-tenths (3.5) pounds per gallon of coating, excluding water, delivered to a coating applicator, in a coating application system that is air dried.

(2) Three and five-tenths (3.5) pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

The table below summaries metal surface coating operations in the Priming Booth (PB1), Bus Assembly Operation (AL1 and AL2), and Undercoating & Foam Deadening Operation (UFBLD). Based on the maximum usage information provided by the source, the volume-weighted VOC content of each of the coatings is less than 3.5 pounds per gallon, excluding water. Therefore, compliance with 326 IAC 8-2-9 is expected.

Facility/ Process	Metal Surface Coating Material	Volume % of water and non-VOCs	Maximum Usage (gal/day)	Maximum Usage (gal/day) (less water and non-VOCs)	VOC Content of Coatings (lb/gal) (less water and non-VOCs)	Volume-Weighted VOC Content of Coatings for Operation (lb/gal) (less water and non-VOCs)
PB1	90-208 Gray Primer	0%	27.60	27.60	2.98	2.98
AL1 and AL2	Pro Series Caulk	0%	11.04	11.04	3.25	1.53
	Dow Silicone Sealer	0%	11.37	11.37	0.61	
	Rust Oleum Aerosol Overall Primer	13.8%	3.45	2.97	5.34	
	Sika Flex Sealant	0%	9.55	9.55	0.60	
	Cyclo C-33 Silicone	0%	0.69	0.69	3.35	
	SF-550 Subfloor Adhesive	41.1%	13.80	8.93	0.03	
UFBLD	Undercoating ZPG	14.8%	39.47	33.63	1.46	1.46

326 IAC 8-2-10 (Volatile Organic Compounds, Flat Wood Panels Manufacturing Operations)

The requirements of 326 IAC 8-2-10 are not applicable to this source, since this source does not perform manufacturing of flat wood panels.

326 IAC 8-2-11 (Volatile Organic Compounds, Fabric and Vinyl Coating)

The requirements of 326 IAC 8-2-11 are not applicable to this source, since this source does not perform surface coating of fabric or vinyl as defined by 326 IAC 8-2-11(a).

326 IAC 8-2-12 (Volatile Organic Compounds, Wood Furniture and Cabinet Coating)

The requirements of 326 IAC 8-2-12 are not applicable to this source, since this source does not perform surface coating of wood furniture or cabinets. This source performs surface coating of structural wood frames, sidewalls, and floors with adhesives, caulks, and primer.

326 IAC 8-11-3 (Volatile Organic Compounds, Wood Furniture Coatings)

The requirements of 326 IAC 8-11-3 are not applicable to this source, since this source does not perform manufacturing of wood furniture.

State Rule Applicability - Woodworking Equipment

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

The requirements of 326 IAC 6-3 are applicable to the woodworking operation (WW1 and WW2). Pursuant to 326 IAC 6-3-2(e)(2), the particulate emissions from to the woodworking operation (WW1 and WW2) shall not exceed 1.88 pounds per hour based on a process weight rate equal to 0.31 tons of wood per hour (626 pounds of wood per hour).

In order to comply with the allowable rate of emission, baghouse dust collector DC1 shall be in operation and control emissions from table saw WW1 at all times that table saw WW1 is in operation and baghouse dust collector DC2 shall be in operation and control emissions from table saw WW2 at all times that table saw WW2 is in operation. The allowable rate of emission was calculated as follows:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) 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

State Rule Applicability – Natural Gas Combustion Sources

326 IAC 4-2-2 (Incinerators)

The natural gas-fired heaters, furnaces, and air makeup unit 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 heaters, furnaces, and air makeup unit 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), the natural gas-fired heaters, furnaces, and air makeup unit are each 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 heaters, furnaces, and air makeup unit 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 – Degreasing Operations

326 IAC 8-3-1 (Organic Solvent Degreasing Operations)

The requirements of 326 IAC 8-3-1 are not applicable to degreasing operations at this source, since degreasing is performed using hand application of solvents.

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 - Metal Cutting Equipment

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

Pursuant to 326 IAC 6-3-1(b)(14), the metal cutting equipment at this source (i.e., the eighteen (18) chop saws (CS1 through CS18), the two (1) miter saws (MS1 and MS2), the four (4) drill presses (DP1 through DP4), and the eight (8) band saws (BS1 through BS8)) are each 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.

State Rule Applicability - Foam Cutting Equipment

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

Pursuant to 326 IAC 6-3-1(b)(14), the foam cutting equipment at this source (i.e., the four (4) table saws (TS1 through TS4)) are each 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.

Testing Requirements

(a) Within one hundred and eighty (180) days after issuance of this permit, the Permittee must perform an initial one time performance test for the uncontrolled emissions from the production and processing of urethane adhesives and foam in the Panel Laminating Operation (LD1 and LD2) and Undercoating & Foam Deadening Operation (UFBLD) in order to verify the emission factors. The test method shall utilize methods as approved by the Commissioner.

(b) Compliance testing is not required for the surface coating in priming booth PB1 because PB1 shall be controlled by a dry particulate filter, in order to comply with 326 IAC 6-3-2, and the monitoring requirements are sufficient to determine compliance.

(c) Compliance testing is not required for the surface coating of wood with contact adhesive and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2), since compliance with the twenty-five (25) tons per twelve (12) consecutive month period limit for VOC input can be determined by evaluating MSDSs and keeping records of the amount of VOC applied.

(d) Compliance testing is not required for the metal surface coating operations in the Priming Booth (PB1), Bus Assembly Operation (AL1 and AL2), and Undercoating & Foam Deadening Operation (UFBLD), since compliance with the VOC content requirements for the coatings can be determined by evaluating MSDSs (or “as supplied” and “as applied” VOC data sheets) and keeping records of the amount of coatings and VOC applied.

(e) Compliance testing is not required for the woodworking operation (WW1 and WW2), since the baghouse dust collectors DC1 and DC2 shall be in operation and control emissions from table saw WW1 and WW2, respectively, at all times that table saw WW1 and/or WW2 is in operation, in order to comply with 326 IAC 6-3-2, and the monitoring requirements are sufficient to determine compliance.

Compliance Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

The woodworking operation (WW1 and WW2) have applicable compliance monitoring conditions as specified below:

(a) Daily visible emission notations of the stack exhaust from the woodworking operation (WW1 and WW2) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

(b) An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

(c) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

(2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse dust collectors (DC1 and DC2) for table saws WW1 and WW2 must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

Conclusion

The operation of this source shall be subject to the conditions of the attached Minor Source Operating Permit (MSOP) No 039-21669-00442.

Appendix A: Emissions Calculations
Emission Summary

Company Name: Goshen Coach
Address City IN Zip: 25161 Leer Drive, Elkhart, IN 46514
Permit Number: 039-21669
Plt ID: 039-00442
Reviewer: Nathan C. Bell
Date: November 28, 2005

		Uncontrolled/Unlimited Potential Emissions (tons/year)						
		Emissions Generating Activity						
Category	Pollutant	Welding & Flame Cutting	Metal Surface Coating Specifically Regulated by 326 IAC 8-2-9	Other Operations Not Specifically Regulated by 326 IAC 8-2-9	Panel Laminating and Foam Undercoating	Wood Working Operation	Natural Gas Combustion	**TOTAL**
Criteria Pollutants	PM	1.26	9.19	0.63		11.26	0.04	22.39
	PM10	1.26	9.19	0.63		11.26	0.18	22.52
	SO2						0.01	0.01
	NOx						2.36	2.36
	VOC		36.22	40.83	1.2E-02		0.13	77.19
	CO						1.98	1.98
Hazardous Air Pollutants	Glycol Ethers		3.96					3.96
	Methanol		1.98					1.98
	Methyl Ethyl Ketone		0.71					0.71
	Methyl Isobutyl Ketone		0.71					0.71
	Ethylbenzene		0.57					0.57
	Ethylene Glycol		0.58					0.58
	Naphthalene		0.63					0.63
	Xylene		3.18					3.18
	methylene diphenyl diisocyanate				1.2E-02			1.2E-02
	Benzene						5.0E-05	5.0E-05
	Dichlorobenzene						2.8E-05	2.8E-05
	Formaldehyde						1.8E-03	1.8E-03
	n-Hexane						0.04	0.04
	Toluene		4.43				8.0E-05	4.43
	Lead						1.2E-05	1.2E-05
	Cadmium						2.6E-05	2.6E-05
	Chromium	3.3E-04	0.32				3.3E-05	0.32
	Cobalt	2.2E-04	1.3E-02					0.01
	Manganese	0.07	2.0E-02				9.0E-06	0.09
	Nickel	2.5E-04					5.0E-05	3.0E-04
	Totals	**0.07**	**17.11**		**1.2E-02**	**0**	**0.04**	**17.17**
							Worse Case HAP	**4.43**

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

		Controlled/Limited Potential Emissions (tons/year)						
		Emissions Generating Activity						
Category	Pollutant	Welding & Flame Cutting	Metal Surface Coating Specifically Regulated by 326 IAC 8-2-9	Other Operations Not Specifically Regulated by 326 IAC 8-2-9	Panel Laminating and Foam Undercoating	Wood Working Operation	Natural Gas Combustion	**TOTAL**
Criteria Pollutants	PM	1.26	0.78	0.63		0.23	0.04	2.94
	PM10	1.26	0.78	0.63		0.23	0.18	3.07
	SO2						0.01	0.01
	NOx						2.36	2.36
	VOC		36.22	less than 35.02	1.2E-02		0.13	less than 71.37
	CO						1.98	1.98
Hazardous Air Pollutants	Glycol Ethers		3.96					3.96
	Methanol		1.98					1.98
	Methyl Ethyl Ketone		0.71					0.71
	Methyl Isobutyl Ketone		0.71					0.71
	Ethylbenzene		0.57					0.57
	Ethylene Glycol		0.58					0.58
	Napthalene		0.63					0.63
	Xylene		3.18					3.18
	methylene diphenyl diisocyanate				1.2E-02			1.2E-02
	Benzene						5.0E-05	5.0E-05
	Dichlorobenzene						2.8E-05	2.8E-05
	Formaldehyde						1.8E-03	1.8E-03
	n-Hexane						0.04	0.04
	Toluene		4.43				8.0E-05	4.43
	Lead						1.2E-05	1.2E-05
	Cadmium						2.6E-05	2.6E-05
	Chromium	3.3E-04	0.32				3.3E-05	0.32
	Cobalt	2.2E-04	1.3E-02					0.01
	Manganese	0.07	2.0E-02				9.0E-06	0.09
	Nickel	2.5E-04					5.0E-05	3.0E-04
	Totals	**0.07**	**17.11**		**1.2E-02**	**0**	**0.04**	**17.17**
							Worse Case HAP	**4.43**

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

Appendix A: Emissions Calculations
Welding and Flame Cutting Operation

Company Name: Goshen Coach
Address City IN Zip: 25161 Leer Drive, Elkhart, IN 46514
Permit Number: 039-21669
Plt ID: 039-00442
Reviewer: Nathan C. Bell
Date: September 30, 2005

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

PROCESS	Number of	Max. electrode consumption per	Max. electrode consumption per	Max. electrode consumption	EMISSION FACTORS* (lb pollutant/lb electrode)					EMISSIONS (lbs/hr)					HAPS (lbs/hr)
WELDING	Stations	station (lbs/hr)	station (lbs/day)	(lbs/year)	PM = PM10	Cr	Co	Mn	Ni	PM = PM10	Cr	Co	Mn	Ni	
Gas Metal Arc Welding (ER70S)	25	1.0	24.0	219,000	5.4E-03	1.0E-06	1.0E-06	3.2E-04	1.0E-06	1.4E-01	2.5E-05	2.5E-05	8.0E-03	2.5E-05	8.0E-03
Gas Metal Arc Welding (ER5154)	2	0.125	3.0	2,190	2.4E-02	1.0E-05		3.4E-05		6.0E-03	2.5E-06		8.5E-06		8.8E-05
Tungsten Inert Gas (TIG) (ER70S)	25	1.0	24.0	219,000	5.4E-03	1.0E-06	1.0E-06	3.2E-04	1.0E-06	1.4E-01	2.5E-05	2.5E-05	8.0E-03	2.5E-05	8.0E-03

PROCESS	Number of	Max. Metal Thickness	Max. Metal Cutting Rate	Max. Metal Cutting Rate	EMISSION FACTORS* (lb pollutant/1,000 inches cut, 1" thick)					EMISSIONS (lbs/hr)					HAPS (lbs/hr)
FLAME CUTTING	Stations	Cut (in)	(in/minute)	(in/hour)	PM = PM10	Cr	Co	Mn	Ni	PM = PM10	Cr	Co	Mn	Ni	
Oxyacetylene/Electric Arc	4	0.25	1.25	75	1.6E-01	3.0E-04		5.0E-04	1.0E-04	1.2E-02	2.3E-05		3.8E-05	7.5E-06	6.8E-05

Abbreviations

Cr = Chromium
Co = Cobalt
Mn = Manganese
Ni = Nickel

Total Potential Emissions lbs/hr	2.9E-01	7.5E-05	5.0E-05	1.6E-02	5.8E-05	1.6E-02
Total Potential Emissions lbs/day	6.92	1.8E-03	1.2E-03	3.8E-01	1.4E-03	3.9E-01
Total Potential Emissions tons/year	1.26	3.3E-04	2.2E-04	7.0E-02	2.5E-04	7.1E-02

METHODOLOGY

Welding emissions, lb/hr: (# of stations) * (max. lbs of electrode used/hr/station) * (emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations) * (max. metal thickness, in.) * (max. cutting rate, in./min.) * (60 min./hr.) * (emission factor, lb. pollutant/1,000 in. cut, 1" thick)

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
Metal Surface Coating Specifically Regulated by 326 IAC 8-2-9*
VOC and PM

Company Name: Goshen Coach
Address City IN Zip: 25161 Leer Drive, Elkhart, IN 46514
Permit Number: 039-21669
Plt ID: 039-00442
Reviewer: Nathan C. Bell
Date: September 30, 2005

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

Operation and Material*	Primary Type of Surface Coated	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water + Non-VOCs	Weight % Solids	Weight % VOCs	Volume % Water + Non-VOCs	Volume % Solids	Usage (gal/unit)	Maximum Capacity (unit/hr)	Maximum Usage (gal/day)	Maximum Usage (lb/hr)	per gallon of coating less water and non-VOCs	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/day)	PTE VOC (tons/yr)	PTE PM (lb/hr)	PTE PM (tons/yr)	lb VOC per gal solids	Transfer Efficiency
Priming Booth 1 (PB1)*																					
90-208 Gray Primer	Metal	10.01	29.77%	0.0%	70.2%	29.8%	0.0%	60.3%	1.0000	1.15	27.60	11.51	2.98	2.98	3.43	82.25	15.01	2.02	8.85	4.94	75%
Bus Assembly Operation (AL1 and AL2)**																					
Pro Series Caulk	Metal, (minimal Plastic)	11.20	29.00%	0.0%	71.0%	29.0%	0.0%	50.0%	0.4	1.15	11.04	5.15	3.25	3.25	1.49	35.86	6.54	0	0	6.50	100%
Dow Silicone Sealer	Metal, (minimal Rubber)	12.26	5.00%	0.0%	95.0%	5.0%	0.0%	90.7%	0.412	1.15	11.37	5.81	0.61	0.61	0.29	6.97	1.27	0	0	0.68	100%
Rust Oleum Aerosol Overall Primer	Metal, (minimal Wood)	6.14	90.00%	15.0%	10.0%	75.0%	13.8%	7.9%	0.125	1.15	3.45	0.88	5.34	4.61	0.66	15.89	2.90	0.04	0.19	58.29	50%
Sika Flex Sealant	Metal, (minimal Glass)	10.00	6.00%	0.0%	94.0%	6.0%	0.0%	91.7%	0.346	1.15	9.55	3.98	0.60	0.60	0.24	5.73	1.05	0	0	0.65	100%
Cyclo C-33 Silicone	Metal, (minimal Wood)	5.59	60.00%	0.0%	40.0%	60.0%	0.0%	40.9%	0.025	1.15	0.69	0.16	3.35	3.35	0.10	2.31	0.42	0.032	0.14	8.21	50%
SF-550 Subfloor Adhesive	Metal, Wood, Rubber	11.48	30.00%	29.9%	70.0%	0.2%	41.1%	55.0%	0.5	1.15	13.80	6.60	0.03	0.02	0.010	0.24	0.04	0	0	0.03	100%
Undercoating & Foam Deadening Operation (UFBLD)*																					
Undercoating ZPG	Metal	10.84	20.50%	9.0%	79.5%	11.5%	14.8%	62.0%	1.43	1.15	39.47	17.83	1.46	1.25	2.05	49.21	8.98	0	0	2.01	100%

METHODOLOGY

Maximum Usage (lbs/hr) = Maximum Usage (gal/day) * Density (lb/gal) / (24 hour/day)
Maximum Usage (gal/day) = Usage (gallons/unit) * Maximum Capacity (units/hour) * 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 Coating = (Density (lb/gal) * Weight % VOCs)
Potential VOC Pounds per Hour = Maximum Usage (lbs/hr) * Weight % VOCs
Potential VOC Pounds per Day = Potential VOC (lbs/hr) * (24 hours/day)
Potential VOC Tons per Year = Potential VOC (lbs/day) * (365 days/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = Density (lbs/gal) * Maximum Usage (gal/day) * (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)
Controlled Potential to Emit = Uncontrolled Potential to Emit * (1 - Control Efficiency)

Total Uncontrolled Potential to Emit (PTE) =	**8.27**	**198.46**	**36.22**	**2.097**	**9.19**

Priming Booth 1 (PB1) Dry Filter Control Efficiency	**95.0%**
Priming Booth 1 (PB1) PM/PM10 Emissions after controls (lb/hr)	**0.10**
Priming Booth 1 (PB1) PM/PM10 Emissions after controls (ton/yr)	**0.44**

Total Controlled Potential to Emit (PTE) (tons/yr) =	**0.78**

*For each of the operations, other surface coating, degreasing, and cleanup operations not specifically regulated by 326 IAC 8-2-9 are contained on Appendix A Page 4 of 8.

**The source requested that surface coating of wood and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2) be limited to less than twenty-five (25) tons of VOCs per twelve (12) consecutive month period (see Appendix A Page 4 of 8). This limit will render the requirements of 326 IAC 8-1-6 not applicable. This limit does not apply to VOC emissions from surface coating of metal performed in the Bus Assembly Operation (AL1 and AL2), since it is specifically regulated by 326 IAC 8-2-9.

Appendix A: Emissions Calculations
Other Surface Coating, Degreasing, and Cleanup Operations Not Specifically Regulated by 326 IAC 8-2-9*
VOC and PM

Company Name: Goshen Coach
Address City IN Zip: 25161 Leer Drive, Elkhart, IN 46514
Permit Number: 039-21669
Plt ID: 039-00442
Reviewer: Nathan C. Bell
Date: September 30, 2005

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

Operation and Material	Primary Type of Surface Coated	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water + Non-VOCs	Weight % Solids	Weight % VOCs	Volume % Water + Non-VOCs	Volume % Solids	Usage (gal/unit)	Maximum Capacity (unit/hr)	Maximum Usage (gal/day)	Maximum Usage (lb/hr)	per gallon of coating less water and non-VOCs	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/day)	PTE VOC (tons/yr)	PTE PM (lb/hr)	PTE PM (tons/yr)	lb VOC per gal solids	Transfer Efficiency
Welding Operation (WMFD)																					
Benders 20 Degreaser (Metal Cleanup)	Not Applicable (Cleanup)	8.57	87.00%	67.0%	13.0%	20.0%	68.9%	10.0%	0.0913	1.15	2.52	0.90	5.50	1.71	0.18	4.32	0.79	0	0	17.14	100%
Panel Laminating Operation (LD1 and LD2)																					
N-Methyl Pyrrolidone (Plastic Cleanup)	Not Applicable (Cleanup)	8.59	100.00%	0.0%	0.0%	100.0%	0.0%	0.0%	0.04570	1.15	1.26	0.45	8.59	8.59	0.45	10.83	1.98	0	0	0	100%
Priming Booth 1 (PB1)*																					
Pure Lacquer Thinner (Cleanup)	Not Applicable (Cleanup)	7.02	100.00%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0660	1.15	1.82	0.53	7.02	7.02	0.53	12.79	2.33	0	0	0	100%
Bus Assembly Operation (AL1 and AL2)**																					
Chem Tech 7113 Contact Adhesive	Wood	6.84	71.30%	35.0%	28.7%	36.3%	35.9%	26.2%	2.11	1.15	58.24	16.60	3.87	2.48	6.02	144.60	26.39	0.00	0.00	9.47	100%
Pure Lacquer Thinner (Cleanup)	Not Applicable (Cleanup)	7.02	100.00%	0.0%	0.0%	100.0%	0.0%	0.0%	0.125	1.15	3.45	1.01	7.02	7.02	1.01	24.22	4.42	0	0	0	100%
Undercoating & Foam Deadening Operation (UFBLD)*																					
DOW DPM Solvent (Gun Cleaner)	Not Applicable (Gun Cleaner)	8.18	100.00%	3.3%	0.0%	96.7%	3.2%	0.0%	0.036	1.15	0.99	0.34	8.17	7.91	0.33	7.86	1.43	0	0	0	100%
Final Finish Operation (FF)																					
Crazy Clean 31 All Purpose Cleaner for Plastic/Vinyl	Not Applicable (Cleanup)	8.17	99.80%	79.5%	0.2%	20.4%	77.8%	2.2%	0.03125	1.15	0.86	0.29	7.50	1.66	0.06	1.43	0.26	2.9E-04	1.3E-03	74.41	50%
Spartan Shine Conditioner/Protectant	Plastic/Vinyl	8.27	75.00%	60.0%	25.0%	15.0%	59.5%	24.8%	0.03125	1.15	0.86	0.30	3.06	1.24	0.04	1.07	0.20	0.037	0.16	5.00	50%
DX-440 Wax and Grease Remover for Plastic/Vinyl	Not Applicable (Cleanup)	6.94	100.00%	0.0%	0.0%	100.0%	0.0%	0.0%	0.03125	1.15	0.86	0.25	6.94	6.94	0.25	5.99	1.09	0	0	0	100%
Glass Cleaner	Not Applicable (Cleanup)	8.26	99.00%	94.0%	1.0%	5.0%	93.1%	0.5%	0.03125	1.15	0.86	0.30	5.98	0.41	0.01	0.36	0.07	0	0	82.60	100%
Paint Touchup Booth (TB1)																					
Basecoat	Plastic	7.76	74.01%	6.0%	26.0%	68.0%	7.04%	20.42%	0.03125	1.15	0.86	0.28	5.68	5.28	0.19	4.55	0.83	0.04	0.16	25.85	50%
Clearcoat	Plastic	8.28	52.98%	0.0%	47.0%	53.0%	0.0%	39.95%	0.03125	1.15	0.86	0.30	4.39	4.39	0.16	3.78	0.69	0.07	0.31	10.98	50%
Pure Lacquer Thinner (Cleanup)	Not Applicable (Cleanup)	7.02	100.00%	0.0%	0.0%	100.0%	0.0%	0.0%	0.01	1.15	0.28	0.08	7.02	7.02	0.08	1.94	0.35	0	0	0	100%

METHODOLOGY

Maximum Usage (lbs/hr) = Maximum Usage (gal/day) * Density (lb/gal) / (24 hour/day)
Maximum Usage (gal/day) = Usage (gallons/unit) * Maximum Capacity (units/hour) * 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 Coating = (Density (lb/gal) * Weight % VOCs)
Potential VOC Pounds per Hour = Maximum Usage (lbs/hr) * Weight % VOCs
Potential VOC Pounds per Day = Potential VOC (lbs/hr) * (24 hours/day)
Potential VOC Tons per Year = Potential VOC (lbs/day) * (365 days/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = Density (lbs/gal) * Maximum Usage (gal/day) * (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)

Total Uncontrolled Potential to Emit (PTE) =	**9.32**	**223.73**	**40.83**	**0.144**	**0.63**

Limited PTE of VOCs from AL1 and AL2** =	**less than**	**25.00 tons/yr**
Total Limited PTE of VOCs** =	**less than**	**35.02 tons/yr**

*For each of the operations, surface coating of metal specifically regulated by 326 IAC 8-2-9 is contained on Appendix A Page 3 of 8.

**The source requested that surface coating of wood and cleanup solvent usage in the Bus Assembly Operation (AL1 and AL2) be limited to less than twenty-five (25) tons of VOCs per twelve (12) consecutive month period. This limit will render the requirements of 326 IAC 8-1-6 not applicable. This limit does not apply to VOC emissions from surface coating of metal performed in the Bus Assembly Operation (AL1 and AL2), since it is specifically regulated by 326 IAC 8-2- (See Appendix A Page 3 of 8).

Appendix A: Emissions Calculations
Surface Coatings and Solvents: Hazardous Air Pollutants (HAPs)

Company Name: Goshen Coach
Address City IN Zip: 25161 Leer Drive, Elkhart, IN 46514
Permit Number: 039-21669
Plt ID: 039-00442
Reviewer: Nathan C. Bell
Date: September 30, 2005

Organic HAPs

Operation and Material	Density (lb/gal)	Maximum Usage (gal/day)	Weight % GE	GE Emissions (tons/yr)	Weight % MOH	MOH Emissions (tons/yr)	Weight % MEK	MEK Emissions (tons/yr)	Weight % MIBK	MIBK Emissions (tons/yr)	Weight % Toluene	Toluene Emissions (tons/yr)	Weight % EB	EB Emissions (tons/yr)	Weight % EG	EG Emissions (tons/yr)	Weight % Napthalene	Napthalene Emissions (tons/yr)	Weight % Xylene	Xylene Emissions (tons/yr)	Total (tons/yr)
Priming Booth 1 (PB1)																					
90-208 Gray Primer	10.01	27.60	5.0%	2.521	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	2.52
Pure Lacquer Thinner (Cleanup)	7.02	1.82	0%	0	10%	0.23	10%	0.233	10%	0.233	60%	1.400	0%	0	0%	0	0%	0	0%	0	2.10
Bus Assembly Operation (AL1 and AL2)																					
Dow Silicone Sealer	12.26	11.37	0%	0	5%	1.272	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	1.27
Rust Oleum Aerosol Overall Primer	6.14	3.45	0%	0	0%	0	0%	0	0%	0	0%	0	10%	0.387	0%	0	5%	0.193	25%	0.966	1.55
Sika Flex Sealant	10.00	9.55	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	6%	1.046	1.05
Pure Lacquer Thinner (Cleanup)	7.02	3.45	0%	0	10%	0.442	10%	0.442	10%	0.442	60%	2.652	0%	0	0%	0	0%	0	0%	0	3.98
SF-550 Subfloor Adhesive	11.48	13.80	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	2%	0.578	0%	0	0%	0	0.58
Undercoating & Foam Deadening Operation (UFBLD)																					
DOW DPM Solvent (Gun Cleaner)	8.18	0.99	97%	1.434	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	1.43
Final Finish Operation (FF)																					
DX-440	6.94	0.86	0%	0	0%	0	0%	0	0%	0	0%	0	13%	0.142	0%	0	40%	0.437	70%	0.765	1.34
Paint Touchup Booth (TB1)																					
90-208 Gray Primer	7.76	0.86	0%	0	0%	0	0%	0	0%	0	0%	0	3.6%	0.044	0%	0	0%	0	33%	0.403	0.45
90-208 Gray Primer	8.28	0.86	0%	0	0%	0	0%	0	0%	0	13%	0.169	0%	0	0%	0	0%	0	0%	0	0.17
Pure Lacquer Thinner (Cleanup)	7.02	0.28	0%	0	10%	0.035	10%	0.035	10%	0.035	60%	0.212	0%	0	0%	0	0%	0	0%	0	0.32
			Totals	**3.96**		**1.983**		**0.711**		**0.711**		**4.434**		**0.573**		**0.578**		**0.630**		**3.180**	**16.75**

Metal HAPs

Operation and Material	Density (lb/gal)	Maximum Usage (gal/day)	Weight % Mn	Mn Emissions (tons/yr)	Weight % Co	Co Emissions (tons/yr)	Weight % Cr	Cr Emissions (tons/yr)	Total (tons/yr)
Priming Booth 1 (PB1)									
90-208 Gray Primer	10.01	27.60	0.04%	2.0E-02	0.03%	1.3E-02	0.64%	0.322	0.35
			Totals	**2.0E-02**		**1.3E-02**		**0.322**	**0.355**

Total PTE Organic and Metal HAPs 17.1 tons/year

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Maximum Usage (gal/day) * Weight % HAP * 365 days/yr * 1 ton/2000 lb

ACRONYMS

GE = glycol ethers
MOH = methanol
MEK = methyl ethyl ketone
MIBK = methyl isobutyl ketone
EB = ethylbenzene
EG = ethylene glycol
Mn = Manganese
Co = Cobalt
Cr = Chromium

Appendix A: Emissions Calculations
Surface Coating
Panel Laminating Operation (LD1 and LD2)
Undercoating & Foam Deadening Operation (UFBLD)

Company Name: **Goshen Coach**
Address City IN Zip: **25161 Leer Drive, Elkhart, IN 46514**
Permit Number: **039-21669**
Plt ID: **039-00442**
Reviewer: **Nathan C. Bell**
Date: **September 30, 2005**

Potential Emissions of MDI (VOC and HAP)

Guidance Document: MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry, The Alliance for the Polyurethanes Industry (API), 2004

Formula: W = 25.4 * VPmdi * (MW / Tproc) * u^0.78 * SA * tTF * Kmdi

where:
W = Evaporative Losses (grams/day)
Vpmdi = Vapor Pressure (atm) of MDI at process temp.
MW = Molecular Weight (g/mol) of MDI (250.26 g/mol)
Tproc = Process Temperature (Kelvin)
u = Air Flow Rate (m/s)
SA = Exposed Surface Area (m2/day)
tTF = Tack Free Time in Seconds (Default = 5 Seconds)
Kmdi = Vapor Pressure Adjustment Factor for MDI Concentration

Exposed Surface Area

Line	Operation	Adhesive	Maximum Capacity of Plant 3/4 (buses/yr)	Max. SA per bus (ft2/bus)	Max. SA Coated (ft2/yr)	Max. SA Coated (ft2/day)	Max. SA Coated (m2/day)
1	LD1	Stabond	8760	525	4599000	12600	1170.6
1	UFBLD	Jamecel Parts A & B	8760	56.5	494940	1356	126.0
2	LD2	Stabond	1314	750	985500	2700	250.8
2	UFBLD	Jamecel Parts A & B	1314	56.5	74241	203.4	18.9

Potential Emissions

Line	Operation	Adhesive	Use	Vpmdi (atm)	MW (g/mol)	Tproc (Kelvin)	u (m/s)	SA (m2/day)	tTF (sec)	Kmdi*	W (grams/day)	W (lb/hr)	W (tons/yr)
1	LD1	Stabond	Sidewalls/Doors	1.3E-08	250.26	298.15	0.508	1170.6	5.0	0.38	3.8E-04	3.5E-08	1.5E-07
1	UFBLD	Jamecel Parts A & B	Foam Deadening	1.3E-08	250.26	298.15	0.508	126.0	5.0	0.55	5.9E-05	5.4E-09	2.4E-08
2	LD2	Stabond	Sidewalls/Doors	1.3E-08	250.26	298.15	0.508	250.8	5.0	0.38	8.1E-05	7.4E-09	3.2E-08
2	UFBLD	Jamecel Parts A & B	Foam Deadening	1.3E-08	250.26	298.15	0.508	18.9	5.0	0.55	8.8E-06	8.1E-10	3.5E-09
										Potential to Emit VOC and HAPs =	**5.2E-04**	**4.8E-08**	**2.1E-07**

* Kmdi values for 80 degrees Farenheit: Stabond (30% MDI) and Jamecel (50% MDI) (Source: Appendix B, Table II, "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry", Published by The Alliance for the Polyurethanes Industry (API) in 2004
MDI = methylene diphenyl diisocyanate (HAP and VOC)

METHODOLOGY

Potential Emissions of MDI (lbs/day) = Potential Emissions (lbs/hr) * (24 hours/day)
Potential Emissions of MDI (tons/yr) = Potential Emissions (lbs/day) * (365 days/yr) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations
Woodworking Operation (WW1 and WW2)

Company Name: Goshen Coach
Address City IN Zip: 25161 Leer Drive, Elkhart, IN 46514
Permit Number: 039-21669
Plt ID: 039-00442
Reviewer: Nathan C. Bell
Date: September 30, 2005

Source ID	Particulate Matter Control Equipment Description	PM/PM10 Collection Efficiency (%)	Exhaust Flow Rate (acfm)	Outlet Grain Loading (grains/cf)	Controlled PTE of PM/PM10 (lbs/hr)	Controlled PTE of PM/PM10 (tons/yr)	Uncontrolled PTE of PM/PM10 (lbs/hr)	Uncontrolled PTE of PM/PM10 (tons/yr)
Table Saw WW1	Baghouse Dust Collector DC1	98.0%	1500	0.002	0.026	0.11	1.29	5.63
Table Saw WW2	Baghouse Dust Collector DC2	98.0%	1500	0.002	0.026	0.11	1.29	5.63
				Totals	**0.05**	**0.23**	**2.57**	**11.26**

Methodology

Potential Controlled Emissions (lbs/hr) = Outlet Loading (grains/cf) * Exhaust Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr
Potential Uncontrolled Emissions (lbs/hr) = Potential Controlled Emissions (lbs/hr) / (1 - Control Efficiency)
Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hr/yr * 1 ton/2,000 lbs

Compliance with 326 IAC 6-3-2:

Allowable Emissions, E = 4.10 * P^0.67 (for weight rates up to 60,000 lb/hr)

where E = emissions in lbs/hr
P = process weight in tons/hr
P = 626 lbs/hr
= 0.31 tons/hr

Allowable PM Emissions, E = 1.88 lbs/hr
= 45.2 lbs/day
= 8.2 tons/yr

The use of baghouses ensure compliance with the limit above.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Goshen Coach**
Address City IN Zip: **25161 Leer Drive, Elkhart, IN 46514**
Permit Number: **039-21669**
Plt ID: **039-00442**
Reviewer: **Nathan C. Bell**
Date: **September 30, 2005**

			Pollutant	PM*	PM10*	SO2	NOx**	VOC	CO
			Emission Factor (lb/MMCF)	1.9	7.6	0.6	100	5.5	84.0
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
Furnaces H1-H2	2	0.050	0.1	0.88	0.001	0.003	0.000	0.044	0.002	0.037
Air Makeup Unit H3	1	2.900	2.9	25.40	0.024	0.097	0.008	1.270	0.070	1.067
Furnaces H4-H5	2	0.105	0.2	1.84	0.002	0.007	0.001	0.092	0.005	0.077
Furnaces H6-H7	2	0.092	0.2	1.61	0.002	0.006	0.000	0.081	0.004	0.068
Radiant Heaters H8-H26	19	0.105	2.00	17.48	1.7E-02	0.066	0.005	0.874	0.048	0.734
Totals	**26**		**5.4**		**0.045**	**0.179**	**0.014**	**2.360**	**0.130**	**1.983**

Pollutant	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lb/MMCF)	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	Potential Emission tons/yr									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Furnaces H1-H2	9.2E-07	5.3E-07	3.3E-05	0.001	1.5E-06	2.2E-07	4.8E-07	6.1E-07	1.7E-07	9.2E-07
Air Makeup Unit H3	2.7E-05	1.5E-05	9.5E-04	0.023	4.3E-05	6.4E-06	1.4E-05	1.8E-05	4.8E-06	2.7E-05
Furnaces H4-H5	1.9E-06	1.1E-06	6.9E-05	0.002	3.1E-06	4.6E-07	1.0E-06	1.3E-06	3.5E-07	1.9E-06
Furnaces H6-H7	1.7E-06	9.7E-07	6.0E-05	0.001	2.7E-06	4.0E-07	8.9E-07	1.1E-06	3.1E-07	1.7E-06
Radiant Heaters H8-H26	1.8E-05	1.0E-05	6.6E-04	0.016	3.0E-05	4.4E-06	9.6E-06	1.2E-05	3.3E-06	1.8E-05
Totals	**5.0E-05**	**2.8E-05**	**1.8E-03**	**0.042**	**8.0E-05**	**1.2E-05**	**2.6E-05**	**3.3E-05**	**9.0E-06**	**5.0E-05**

*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