



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: September 29, 2005
RE: Forest River, Inc.-Glaval Bus Div. / 039-17630-00126
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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MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**Forest River, Inc., Glaval Bus Division
55135 CR 1, Elkhart, Indiana 46514 (Plant 1), and
914 CR 1, Elkhart, Indiana 46514 (Plant 9)**

(herein known as the Permittee) is hereby authorized to 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 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 039-17630-00126	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 29, 2005 Expiration Date: September 29, 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 a stationary bus and trailer manufacturing source.

Authorized Individual: Vice President of Engineering
Source Address: 55135 CR 1, Elkhart, Indiana 46514 (Plant 1)
914 CR 1, Elkhart, Indiana 46514 (Plant 9)
Mailing Address: P.O. Box 3030, Elkhart, Indiana 46514
General Source Phone: 800-445-2825
SIC Codes: 3711 and 7532
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 Rules
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

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

Plant 1

- (a) One (1) surface coating operation, identified as Bus Paint-1, located in Building E, constructed in 1999, consisting of one (1) blackout area and one (1) bus refinishing area, equipped with high volume low pressure (HVLP) spray guns and dry filters for particulate control, exhausting to Stack BP-1, capacity: 0.083 metal busses per hour or 2.00 metal busses per day for blackout and 0.170 metal busses per hour or 4.00 metal busses per day for refinishing.
- (b) One (1) spray paint booth, identified as Trailer Paint-1, located in Building C, constructed in 2002, equipped with HVLP spray guns and dry filters for particulate control, exhausting to Stack TP-1, capacity: 1.00 metal trailer per hour or 24.0 metal trailers per day.
- (c) Thirty-nine (39) natural gas-fired space heaters, heat input capacity: 1.04 million British thermal units per hour, each.
- (d) Fifty-one (51) metal inert gas (MIG) welding stations, capacity: 0.21 pounds of rod or wire per hour per station.

Plant 9

- (e) One (1) hot melt rolling facility, identified as Roll Coater 1, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour or 6.00 busses per day.

- (f) Two (2) bead applicators, identified as Bead Application 1 & 2, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour or 6.00 busses per day, each.
- (g) One (1) bus assembly operation, identified as Bus Assembly 1, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour or 6.00 busses per day.
- (h) One (1) recreation vehicle (RV) assembly operation, identified as B and C Assembly Area, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting to inside, capacity: 0.25 RVs per hour or 6.00 RVs per day.

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 operate 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 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.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating 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.6 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, Indiana 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.7 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.
- (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 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 does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.

B.8 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.9 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.10 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.11 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.12 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 one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

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

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

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

C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute 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 than 180 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 Compliance Response Plan - Preparation and Implementation

- (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.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

The response action documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

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 2-6.1-5] [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 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 EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description: Bus Paint-1 and Trailer Paint-1

Plant 1

- (a) One (1) surface coating operation, identified as Bus Paint-1, located in Building E, constructed in 1999, consisting of one (1) blackout area and one (1) bus refinishing area, equipped with high volume low pressure (HVLP) spray guns and dry filters for particulate control, exhausting to Stack BP-1, capacity: 0.083 metal busses per hour or 2.00 metal busses per day for blackout and 0.170 metal busses per hour or 4.00 metal busses per day for refinishing.
- (b) One (1) spray paint booth, identified as Trailer Paint-1, located in Building C, constructed in 2002, equipped with HVLP spray guns and dry filters for particulate control, exhausting to Stack TP-1, capacity: 1.00 metal trailer per hour or 24.0 metal trailers per day.

(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 (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere VOC from Trailer Paint-1 in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator for extreme performance coatings.

D.1.2 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 the application equipment of Trailer Paint-1 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.1.3 Particulate [326 IAC 6-3-2(d)]

- (a) Particulate from the Bus Paint-1 and Trailer Paint-1 shall be controlled by a dry particulate filter and the Permittee shall operate the control devices 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.1.4 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 Bus Paint-1 and Trailer Paint-1 as well as their control devices.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

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

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

D.1.6 Record Keeping Requirements

-
- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.1.1.
- (1) The VOC content of each coating material and solvent used at Trailer Paint-1, less water.
 - (2) The amount and VOC content of each coating material and solvent used at Trailer Paint-1 on a 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;
- (b) To document compliance with Condition D.1.3, the Permittee shall maintain records in accordance with Condition D.1.3.
- (c) 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
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:	Forest River, Inc., Glaval Bus Division
Address:	55135 CR 1, Elkhart, Indiana 46514 (Plant 1) 914 CR 1, Elkhart, Indiana 46514 (Plant 9)
City:	Elkhart
Phone #:	574-533-5934
MSOP #:	MSOP 039-17630-00126

I hereby certify that Forest River, Inc., Glaval Bus Division is

- still in operation.
 no longer in operation.

I hereby certify that Forest River, Inc., Glaval Bus Division is

- in compliance with the requirements of MSOP 039-17630-00126.
 not in compliance with the requirements of MSOP 039-17630-00126.

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 PERM LIMIT OF _____

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

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

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

**Indiana Department of Environmental Management
Office of Air Quality**

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

Source Background and Description

Source Name:	Forest River, Inc., Glaval Bus Division
Source Location:	55135 CR 1, Elkhart, Indiana 46514 (Plant 1) 914 CR 1, Elkhart, Indiana 46514 (Plant 9)
County:	Elkhart
SIC Codes:	3711 and 7532
Operation Permit No.:	MSOP 039-17630-00126
Permit Reviewer:	Michael S. Schaffer

The Office of Air Quality (OAQ) has reviewed an application from Forest River, Inc., Glaval Bus Division (formerly Glaval Corporation - Plants 1 & 9) relating to the operation of a bus and trailer manufacturing source.

Source Definition

The Source Definition from T 039-6955-000126, issued on February 9, 1999 was incorporated into this permit as follows:

This bus manufacturing company consists of two (2) plants:

- (a) Plant 1 is located at 55135 CR 1, Elkhart, Indiana 46514; and
- (b) Plant 9 is located at 914 CR 1, Elkhart, Indiana 46514.

Since the two (2) plants are located in contiguous properties, have the same SIC codes and are owned by one (1) company, they will be considered one (1) source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Plant 1

- (a) One (1) surface coating operation, identified as Bus Paint-1, located in Building E, constructed in 1999, consisting of one (1) blackout area and one (1) bus refinishing area, equipped with high volume low pressure (HVLV) spray guns and dry filters for particulate control, exhausting to Stack BP-1, capacity: 0.083 metal busses per hour for blackout and 0.170 metal busses per hour for refinishing.
- (b) One (1) spray paint booth, identified as Trailer Paint-1, located in Building C, constructed in 2002, equipped with HVLV spray guns and dry filters for particulate control, exhausting to Stack TP-1, capacity: 1.00 metal trailers per hour.
- (c) Thirty-nine (39) natural gas-fired space heaters, heat input capacity: 1.04 million British thermal units per hour, each.
- (d) Fifty-one (51) metal inert gas (MIG) welding stations, capacity: 0.21 pounds of rod or wire per hour per station.

Plant 9

- (e) One (1) hot melt rolling facility, identified as Roll Coater 1, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour.
- (f) Two (2) bead applicators, identified as Bead Application 1 & 2, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour, each.
- (g) One (1) bus assembly operation, identified as Bus Assembly 1, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour.
- (h) One (1) bus assembly operation, identified as B and C Assembly Area, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting to inside, capacity: 0.25 busses per hour.

Note that the equipment in paragraphs (c) through (f) were either considered insignificant activities in T 039-6955-000126, issued on February 9, 1999 or were permitted by Exemption 039-15066-00564, issued on February 1, 2002.

Also note that Exemption 039-15066-00564 was issued prior to Forest River, Inc. purchasing Glaval Corporation - Plants 1 and 9.

Unpermitted Emission Units and Pollution Control Equipment

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

Emission Units and Pollution Control Equipment Removed

The following facilities have been removed from the source and are not included in the proposed permit:

Plant 1

- (a) One (1) fiberglass and plastic paint operation, identified as EU-1, consisting of eleven (11) paint booths and one (1) body shop, equipped with high volume low pressure (HVLP) spray applicators, equipped with dry filters for overspray control, capacity: 32 miscellaneous parts per hour.
- (b) One (1) cold cleaner degreasing operation, constructed in 1999, equipped with a remote solvent reservoir.

Plant 9

- (c) One (1) car wash, identified as EU-2, exhausting through any or all of Stacks GV-1 through GV-9, capacity 25 vehicles per hour.

Existing Approvals

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

- (a) T 039-6955-00126, issued on February 9, 1999;

- (b) First Administrative Amendment 039-10919-00126, issued on June 22, 1999;
- (c) Second Administrative Amendment 039-11973-00126, issued on April 27, 2000;
- (d) Third Administrative Amendment 039-14273-00126, issued on June 27, 2001;
- (e) Fourth Administrative Amendment 039-14893-00126, issued on February 7, 2002;
- (f) First Reopening 039-13237-00126, issued on April 2, 2002;
- (g) Fifth Administrative Amendment 039-15476-00126, issued on May 2, 2002; and
- (h) Sixth Administrative Amendment 039-19548-00126, issued September 2, 2004.

All conditions from previous approvals were incorporated into this permit except the following:

- (a) T 039-6955-00126, issued on February 9, 1999:

- (1) All conditions in Sections D.1 and D.3

Reason not incorporated: The paint and fiberglass operation, identified as EU-1, as well as the one (1) carwash, identified as EU-2, have been removed from service.

- (2) Condition D.2.6 - Each of the three (3) spray paint lines shall use no more than 2.00 tons of VOC, including coatings, dilution solvents, and cleaning solvents per month. This usage limit combined with a source-wide VOC emissions limit of 240 tons per twelve (12) consecutive month period makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

Reason not incorporated: This source no longer needs a source-wide VOC limit to render the requirements of 326 IAC 2-2 not applicable. Furthermore, each of the three (3) spray paint lines (which have been condensed down to just one (1) surface coating operation, identified as Bus Paint-1) has an unrestricted potential to emit VOC that is less than twenty-five tons per year, which renders the requirements of 326 IAC 8-1-6 not applicable.

- (3) Condition D.2.7 - The number of vehicles coated shall be limited to 34 vehicles per line per day and any change or modification which increases the number of vehicles coated per line per day to 35 or greater shall obtain a New Construction Permit before any such change may occur. Therefore, 326 IAC 8-2-9 does not apply.

Reason not incorporated. A bus manufacturing plant cannot accept a limit on vehicle production to less than thirty-five (35) tons per year in accordance with 326 IAC 8-2-9(b)(4) to render the requirements of 326 IAC 8-2-9 not applicable. That limitation is only applicable to automobiles and light duty trucks. However, since the refinishing area at Bus Paint-1 is considered a vehicle refinishing operation, pursuant to 326 IAC 8-2-9(b)(3), the refinishing portion of Bus Paint-1 is exempt from the requirements of 326 IAC 8-2-9. In addition the blackout area at Bus-Paint 1 has an unrestricted potential to emit that is less than fifteen (15) pounds of VOC per day, which renders the requirements of 326 IAC 8-2-9 not applicable to the blackout area.

For a detailed analysis on the applicability of 326 IAC 8-2-9 see the State Rule Applicability - Individual Facilities section of this document.

- (4) Conditions D.2.16(c) and D.2.17 - Record Keeping and Reporting Requirements to document compliance with Condition D.2.7.

Reason not incorporated: The requirements of Condition D.2.7 will not be included in the permit. Therefore, the subsequent record keeping and reporting requirements in Conditions D.2.16(c) and D.2.17 are no longer necessary.

- (5) Condition D.4.1 - The general assembly and cleaning area shall use no more than 2.00 tons of VOC, including coatings, dilution solvents, and clean solvents per month. This usage limit combined with a source-wide VOC emissions limit of 240 tons per twelve (12) consecutive month period makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

Reason not incorporated: The potential VOC emissions from the general assembly area (which has now been split into two (2) separate assembly areas, identified as Bus Assembly 1 and B and C Assembly Area), are less than a total of twenty-five (25) tons per year. In addition, source-wide unrestricted potential VOC emissions are less than 250 tons per year. Therefore, the limits to render the requirements of 326 IAC 2-2 and 326 IAC 8-1-6 are no longer necessary.

- (6) All conditions in Section D.5 - The requirements for two (2) gluing operations

Reason not incorporated: The gluing operations (which have now been incorporated as Roll Coater-1) at this time do not have any potential VOC emissions, nor do they coat any wood furniture. Therefore, all the conditions in Section D.5 will not be included in this permit.

- (7) Conditions D.6.1 and D.6.2 - The requirements for Cold Cleaner Degreaser Operation and Control in accordance with 326 IAC 8-3-2 and 326 IAC 8-3-5.

Reason not incorporated: The one (1) cold cleaner has been removed from service.

- (b) Sixth Administrative Amendment 039-19548-00126, issued on September 2, 2004.

Condition C.17 - Requirements in accordance with 326 IAC 2-6 (Emissions Statement)

Reason Not Incorporated: Since this source will be operating under the Minor Source Operating Permit requirements of 326 IAC 2-6.1, an Emission Statement in accordance with 326 IAC 2-6 is no longer required.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
Stack BP-1	Bus Paint-1	6.0	2.0	Unknown	Ambient
Stack TP-1	Trailer Paint-1	6.0	2.0	Unknown	Ambient

Recommendation

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

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

An application for the purposes of this review was received on May 9, 2003, with additional information received on June 8, July 14, and August 9, 2005.

Emission Calculations

See Pages 1 through 9 of 9 in Appendix A of this document for detailed emission calculations.

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit 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/yr)
PM	6.38
PM ₁₀	7.44
SO ₂	0.111
VOC	48.0
CO	15.6
NO _x	18.6

HAPs	Potential to Emit (tons/yr)
Benzene	0.0004
Dichlorobenzene	0.0002

HAPs	Potential to Emit (tons/yr)
Formaldehyde	0.014
Hexane	1.18
Toluene	4.91
Lead	0.00009
Cadmium	0.0002
Chromium	0.0003
Manganese	0.023
Nickel	0.0004
MEK	1.32
Ethylbenzene	0.249
MIBK	0.352
Xylene	9.00
Methyl Alcohol	0.011
1,2,4 Trimethylbenzene	0.060
Perchloroethylene	0.006
Methylchloride	0.005
Bis (2-ethylhexyl)phthalate	0.039
Glycol Ethers	3.42
Cumene	0.012
Styrene	0.122
Vinyl Acetate	0.157
1,1,1 Trichloroethane	0.004
Methyl-Methacrylate	0.009
Total	20.9

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than one hundred (100) tons per year; and
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM _{2.5}	attainment
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
1-Hour Ozone	attainment
8-Hour Ozone	basic nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) 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 NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements of 326 IAC 2-3, Emission Offset. See the State Rule Applicability - Entire Source section of this document.
- (b) Elkhart County has been classified as unclassifiable or attainment for PM_{2.5}. 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 PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions. See the State Rule Applicability for the source section.
- (c) Elkhart County has been classified as attainment or unclassifiable in Indiana for PM₁₀, SO₂, CO, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.
- (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.

Source Status

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

Pollutant	Emissions (tons/yr)
PM	Less Than 100
PM ₁₀	Less Than 100
SO ₂	Less Than 100
VOC	Less Than 100

Pollutant	Emissions (tons/yr)
CO	Less Than 100
NO _x	Less Than 100
Single HAP	Less Than 10
Combination HAPs	Less Than 25

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred fifty (250) tons per year or greater nor any nonattainment regulated pollutant is emitted at a rate of one-hundred (100) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories.
- (b) Emissions were based on the changes made to the operating equipment since this source was constructed in 1999.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit MSOP 039-17630-00126, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) criteria pollutant is less than one-hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) the combination of HAPs is less than twenty-five (25) tons per year.

This status is based on the changes made to the operating equipment since this source was constructed in 1999. This status has been verified by the OAQ inspector assigned to the source.

Note that any change or modification that increases the potential to emit of any single HAP from Plant 1 and Plant 9 to greater than or equal to a total of ten (10) tons per year or increases the potential to emit of any combination of HAPs from Plant 1 and Plant 9 to greater than a total of twenty-five (25) tons per year, may render the requirements of 326 IAC 2-7 (Part 70 Operating Permit) applicable and shall require prior IDEM, OAQ approval.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subparts JJ, MMMM, and PPPP, are not included in the permit for this source because this source is not a major source of HAPs.
- (c) There are no other 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 2-3 (Emission Offset)

The unrestricted potential VOC emissions and the unrestricted potential NO_x emissions are each less than one-hundred (100) tons per year. Therefore, this source is a minor source pursuant to 326 IAC 2-3, Emission Offset.

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

The unrestricted potential emissions of each attainment criteria pollutant are less than two-hundred fifty (250) tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

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

The operation of the entire source will emit less than ten (10) tons per year of a single HAP and twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to any emission unit at this source.

326 IAC 2-6 (Emission Reporting)

This source is not located in Lake or Porter County with the potential to emit greater than twenty-five (25) tons per year of NO_x, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

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 the 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.

State Rule Applicability – Individual Facilities

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

- (a) Pursuant to 326 IAC 6-3-1(a)(14), Bus Assembly 1 as well as B and C Assembly Areas are not subject to requirements of 326 IAC 6-3 since each operation has a potential to emit which is less than 0.551 pounds of PM per hour.
- (b) Pursuant to 326 IAC 6-3-1(a)(6) and (7), Roll Coater 1 and Bead Application 1 & 2 are not subject to requirements of 326 IAC 6-3 since rolling and flow coating applications do not emit any particulate.

- (c) Pursuant to 326 IAC 6-3-2(d), particulate from the Bus Paint-1 and Trailer Paint-1, 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.

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

Pursuant to 326 IAC 6-3-1(a)(9), the fifty-one (51) MIG welding stations are not subject to the requirements of 326 IAC 6-3-2 since the stations consume less than a total of 625 pounds of rod or wire per hour.

326 IAC 8-1-6 (New facilities; General reduction requirements)

Bus Paint-1, Assembly 1, B and C Assembly Areas, Roll Coater 1 and Bead Application 1 & 2, each do not have potential VOC emissions of twenty-five (25) tons per year or more. Therefore, 326 IAC 8-1-6 is not applicable.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

- (a) This rule does not apply to Bus Assembly 1, B and C Assembly Areas, Roll Coater 1 and Bead Application 1 & 2, because these are bus manufacturing processes for the purposes of coating wood and plastic. The only metal part that is being coated with these processes is strictly a structural bus part that is attached to a primary piece of plastic and/or wood. The coating of structural metal parts that are attached to primary pieces of wood and/or plastic does not meet any of the applicability criteria listed in 326 IAC 8-2-9(a). Therefore, the requirements of 326 IAC 8-2-9 are not applicable to Bus Assembly 1, B and C Assembly Areas, Roll Coater 1 and Bead Application 1 & 2.

- (b) The blackout area at Bus Paint-1, constructed in 1999, coats metal under the two (2) digit Standard Industrial Classification Code #37, but has a potential to emit of less than fifteen (15) pounds of VOC per day. Therefore, the requirements of 326 IAC 8-2-9 are not applicable to the blackout portion of Bus Paint-1.

Any change or modification that increases the potential to emit of the blackout area in Bus Paint-1 to greater than or equal to fifteen (15) pounds per day may render the requirements of 326 IAC 8-2-9 applicable and shall require prior IDEM, OAQ approval.

- (c) Pursuant to 326 IAC 8-2-9(b)(3), the refinishing area at Bus Paint-1 is exempt from the requirements of 326 IAC 8-2-9 since that portion Bus Paint-1 is considered an automobile refinishing operation as defined by 326 IAC 8-10-2. Pursuant to 326 IAC 8-10-2:

“Automobile refinishing’ means refinishing operations for after-market motor vehicles or mobile equipment performed in auto body and repair shops, production paint shops, new car dealer repair and paint shops, fleet operation repair and paint shops, and any other facility which coats vehicles under the Standard Industrial Classification (SIC) code 7532 (top, body, and upholstery repair shops and paint shops), including dealer repair of vehicles damaged in transit.”

- (d) Trailer Paint-1, constructed in 2002, coats metal under the two (2) digit Standard Industrial Classification Code #37 and has a potential to emit greater than fifteen (15) pounds of VOC per day. Therefore, Trailer Paint-1 is subject to requirements of 326 IAC 8-2-9. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to the applicator at Trailer Paint-1 shall be limited to 3.5 pounds of VOC per gallon of coating less water, for 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.

Based on the MSDS submitted by the source and calculations made, Trailer Paint-1 is in compliance with this requirement.

326 IAC 8-2-12 (Wood furniture and cabinet coating)

The potential to emit VOC from Bead Application 1 & 2 as well as Roll Coater 1 is less than fifteen (15) pounds per day, each. In addition the wood that is coated at these facilities is used for structural purposes and is not considered wood furniture. Therefore, the requirements of 326 IAC 8-2-12 are not applicable.

326 IAC 8-10 (Automobile Refinishing)

Since this source is not located in Clark, Floyd, Lake, or Porter County, the requirements of 326 IAC 8-10 are not applicable to Bus Paint-1.

Conclusion

The operation of this bus and trailer manufacturing source shall be subject to the conditions of the Minor Source Operating Permit 039-17630-00126.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Minor Source Operating Permit

Source Name:	Forest River, Inc., Glaval Bus Division
Source Location:	55135 CR 1, Elkhart, Indiana 46514 (Plant 1) 914 CR 1, Elkhart, Indiana 46514 (Plant 9)
County:	Elkhart
Construction Permit No.:	MSOP 039-17630-00126
SIC Code:	3711 and 7532
Permit Reviewer:	Michael S. Schaffer

On August 24, 2005, the Office of Air Quality (OAQ) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Forest River, Inc., Glaval Bus Division had applied to transition from a Part 70 Operating Permit to a Minor Source Operating Permit for the operation of a bus and trailer manufacturing source, utilizing air pollution control equipment to limit the amount of air pollution that can be released. The notice also stated that OAQ proposed to issue a permit 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.

On August 29, 2005, on behalf of Forest River, Inc., Glaval Bus Division, Jim B. Euler of DECA Environmental and Associates, Inc., submitted comments on the proposed operating permit. The summary of the comments and corresponding responses are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

Comment:

Due to the variability of the unit sizes, it is better to identify the facility by 'units per day'. The Potential to Emit (PTE) definition implies that you determine the highest possible usage in an hour's time. If a larger unit is in the facility, the production level in terms of units per hour drops significantly as it requires more time to complete the unit. When a smaller unit enters the facility, it will take less time to complete the unit; this significantly raises the 'units per hour' level compared to the larger unit. With all of the units considered and the highest possible usage used for PTE, it is helpful to include a daily production level because this factors in all of the above and best determines an accurate PTE.

For the unit name change at B and C Assembly Area, all calculations were based correctly upon these units, but they are more precisely identified as recreational vehicles, not busses.

Conditions A.2(a), (b), (e), (f), (g) and (h) as well as paragraphs (a) and (b) in the equipment description box for Section D.1 should be revised to the following:

- (a) One (1) surface coating operation, identified as Bus Paint-1, located in Building E, constructed in 1999, consisting of one (1) blackout area and one (1) bus refinishing area, equipped with high volume low pressure (HVLP) spray guns and dry filters for particulate control, exhausting to Stack BP-1, capacity: 0.083 metal busses per hour (or 2 busses per day) for blackout and 0.170 metal busses per hour (or 4 busses per day) for refinishing.
- (b) One (1) spray paint booth, identified as Trailer Paint-1, located in Building C, constructed in 2002, equipped with HVLP spray guns and dry filters for particulate control, exhausting to Stack TP-1, capacity: 1.00 metal trailer per hour (or 24 metal trailers per day).
- (e) One (1) hot melt rolling facility, identified as Roll Coater 1, constructed in 1999, exhausting

inside, capacity: 0.25 busses per hour (or 6 busses per day).

- (f) Two (2) bead applicators, identified as Bead Application 1 & 2, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour (or 6 busses per day), each.
- (g) One (1) bus assembly operation, identified as Bus Assembly 1, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour (or 6 busses per day).
- (h) One (1) recreational vehicle (RV) assembly operation, identified as B and C Assembly Area, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting to inside, capacity: 0.25 RVs per hour (or 6 RVs per day).

Response

Since vehicles of different sizes and lengths will be processed through both the coating booths and the assembly areas that operate at this source, the equipment list in Condition A.2 as well as the equipment description box in Section D.1 has been revised for descriptive purposes as follows. These descriptive changes do not affect the potential to emit or the applicability of any rules.

A.2 Emissions Units and Pollution Control Equipment Summary

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

Plant 1

- (a) One (1) surface coating operation, identified as Bus Paint-1, located in Building E, constructed in 1999, consisting of one (1) blackout area and one (1) bus refinishing area, equipped with high volume low pressure (HVLP) spray guns and dry filters for particulate control, exhausting to Stack BP-1, capacity: 0.083 metal busses per hour **or 2.00 metal busses per day** for blackout and 0.170 metal busses per hour **or 4.00 metal busses per day** for refinishing.
- (b) One (1) spray paint booth, identified as Trailer Paint-1, located in Building C, constructed in 2002, equipped with HVLP spray guns and dry filters for particulate control, exhausting to Stack TP-1, capacity: 1.00 metal trailer per hour **or 24.0 metal trailers per day**.
- (c) Thirty-nine (39) natural gas-fired space heaters, heat input capacity: 1.04 million British thermal units per hour, each.
- (d) Fifty-one (51) metal inert gas (MIG) welding stations, capacity: 0.21 pounds of rod or wire per hour per station.

Plant 9

- (e) One (1) hot melt rolling facility, identified as Roll Coater 1, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour **or 6.00 busses per day**.
- (f) Two (2) bead applicators, identified as Bead Application 1 & 2, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour **or 6.00 busses per day**, each.
- (g) One (1) bus assembly operation, identified as Bus Assembly 1, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting inside, capacity: 0.25 busses per hour **or 6.00 busses per day**.
- (h) One (1) ~~bus~~ **recreation vehicle (RV)** assembly operation, identified as B and C Assembly

Area, equipped with wiping or extruding applicators and spray cans, constructed in 1999, exhausting to inside, capacity: 0.25 ~~busses~~ **RVs** per hour or **6.00 RVs per day**.

SECTION D.1 EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description: Bus Paint-1 and Trailer Paint-1

Plant 1

- (a) One (1) surface coating operation, identified as Bus Paint-1, located in Building E, constructed in 1999, consisting of one (1) blackout area and one (1) bus refinishing area, equipped with high volume low pressure (HVLP) spray guns and dry filters for particulate control, exhausting to Stack BP-1, capacity: 0.083 metal busses per hour or **2.00 metal busses per day** for blackout and 0.170 metal busses per hour or **4.00 metal busses per day** for refinishing.
- (b) One (1) spray paint booth, identified as Trailer Paint-1, located in Building C, constructed in 2002, equipped with HVLP spray guns and dry filters for particulate control, exhausting to Stack TP-1, capacity: 1.00 metal trailers per hour or **24.0 metal trailers per day**.

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

Upon further review, the OAQ has decided to make the following changes to the construction permit: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change:

Since weekly observations of the overspray are not required to document compliance with 326 IAC 6-3-2, a requirement to maintain a log of weekly overspray observations is not required. Records of actions taken is only required when overspray is visibly detected. Therefore, Condition D.1.6(b) has been changed as follows:

D.1.6 Record Keeping Requirements

- ~~(b) To document compliance with Conditions D.1.3 and D.1.4, the Permittee shall maintain a log of all overspray observations and dry filter inspections as well as all additional inspections prescribed by the Preventive Maintenance Plan.~~
- (b) To document compliance with Condition D.1.3, the Permittee shall maintain records in accordance with Condition D.1.3.**

**Appendix A: Emissions Calculations
VOC and Particulate
From Plant 1 Surface Coating Operations**

**Company Name: Forest River, Inc., Glaval Bus Division
Address City IN Zip: 55135 CR 1 and 914 CR 1, Elkhart, IN 46514
Permit Number: MSOP 039-17630
Plt ID: 039-00126
Reviewer: Michael S. Schaffer
Application Date: May 9, 2003**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Type of Material coated
Plant 1																	
<i>Bus Paint-1 (Buildings E)</i>																	
BLACKOUT AREA																	
Base Mix Enamel																	
806J	8.24	52.30%	0.00%	52.3%	0.00%	40.43%	0.0767	0.083	4.31	4.31	0.03	0.66	0.120	0.027	10.66	75%	Metal
150K	7.29	90.33%	19.20%	71.1%	19.20%	7.50%	0.2126	0.083	6.42	5.19	0.09	2.20	0.401	0.014	69.14	75%	Metal
175K	7.68	68.79%	10.40%	58.4%	10.40%	25.47%	0.0857	0.083	5.00	4.48	0.03	0.77	0.140	0.019	17.61	75%	Metal
7175S	6.65	99.80%	9.00%	90.8%	9.00%	0.13%	0.3750	0.083	6.64	6.04	0.19	4.51	0.823	0.000	4644.77	75%	Metal
Clearcoat																	
HC7600S	7.55	64.99%	9.40%	55.6%	9.40%	28.13%	0.5500	0.083	4.63	4.20	0.19	4.60	0.84	0.132	14.92	75%	Metal
PM Control Efficiency: 95.00%																	
Subtotal Uncontrolled									0.530	12.73	2.32	0.192					
Subtotal Controlled									0.530	12.73	2.32	0.010					

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Type of Material coated
REFINISHING AREA																	
Base Mix Enamel																	
801J	13.3	27.00%	0.00%	27.0%	0.00%	49.65%	0.0394	0.170	3.60	3.60	0.02	0.58	0.106	0.071	7.25	75%	Metal
807J	8.15	51.50%	0.00%	51.5%	0.00%	42.03%	0.0429	0.170	4.20	4.20	0.03	0.73	0.134	0.032	9.99	75%	Metal
882J	8.74	45.80%	0.00%	45.8%	0.00%	44.30%	0.0430	0.170	4.00	4.00	0.03	0.70	0.128	0.038	9.04	75%	Metal
150K	7.29	90.50%	19.20%	71.3%	19.20%	7.50%	0.1052	0.170	6.43	5.20	0.09	2.23	0.407	0.014	69.30	75%	Metal
175K	7.68	65.10%	10.40%	54.7%	10.40%	25.47%	0.1257	0.170	4.69	4.20	0.09	2.15	0.393	0.063	16.49	75%	Metal
7160S	6.62	99.80%	0.00%	99.8%	0.00%	0.20%	0.3563	0.170	6.61	6.61	0.40	9.60	1.75	0.001	3303.38	75%	Metal
Clearcoat																	
HC7600S	7.55	55.60%	17.20%	38.4%	17.20%	28.13%	0.3913	0.170	3.50	2.90	0.19	4.63	0.84	0.244	10.31	75%	Metal
HC7607S	8.33	52.80%	0.00%	52.8%	0.00%	39.89%	0.1088	0.170	4.40	4.40	0.08	1.95	0.356	0.080	11.03	75%	Metal
Primer																	
131S	11.2	41.30%	0.00%	41.3%	0.00%	36.14%	0.0065	0.170	4.60	4.60	0.01	0.12	0.022	0.008	12.74	75%	Metal
3642S	6.59	100.00%	30.20%	69.8%	30.20%	0.00%	0.0065	0.170	6.59	4.60	0.01	0.12	0.022	0.000	N/A	75%	Metal
Precoat																	
222S	7.08	76.30%	18.40%	57.9%	18.40%	41.10%	0.0340	0.170	5.02	4.10	0.02	0.57	0.104	0.011	9.97	75%	Metal
Gun Cleaner																	
3949S	8.25	99.86%	99.46%	0.4%	99.46%	0.14%	0.0114	0.170	6.11	0.03	0.0001	0.002	0.0003	0.00002	23.57	75%	Metal
PM Control Efficiency: 95.00%																	
Subtotal Uncontrolled									0.975	23.400	4.27	0.560					
Subtotal Controlled									0.975	23.40	4.27	0.028					

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Type of Material coated
Plant 1																	
<i>Trailer Paint-1 (Building C)</i>																	
N-7618-Black Hi Solid Gloss	10.5	33.00%	0.00%	33.00%	0.00%	67.00%	0.5000	1.00	3.47	3.47	1.74	41.70	7.61	3.86	N/A	75%	Metal
PM Control Efficiency: 95.00%																	
Subtotal Uncontrolled									1.74	41.70	7.61	3.86					
Subtotal Controlled									1.74	41.70	7.61	0.193					

**Appendix A: Emissions Calculations
VOC and Particulate
From Plant 9 Surface Coating Operations**

**Company Name: Forest River, Inc., Glaval Bus Division
Address City IN Zip: 55135 CR 1 and 914 CR 1, Elkhart, IN 46514
Permit Number: MSOP 039-17630
Plt ID: 039-00126
Reviewer: Michael S. Schaffer
Application Date: May 9, 2003**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Type of Material coated
Plant 9																	
<i>Roll Coater-1 (Hot Melt Roller)</i>																	
Dynafake Roll Cleaner	8.00	0.00%	0.00%	0.00%	0.00%	100%	0.0090	0.250	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood, Plastic
Everlock 2U265	7.66	0.00%	0.00%	0.00%	0.00%	100%	2.0000	0.250	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood, Plastic

PM Control Efficiency: 0.00%
Subtotal Uncontrolled 0.00 0.00 0.000 0.000
Subtotal Controlled 0.00 0.00 0.000 0.000

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Type of Material coated
Plant 9																	
<i>Bead Application 1 & 2</i>																	
Hybond SIA 113	9.16	0.00%	0.00%	0.00%	0.00%	100%	2.0000	0.500	0.00	0.00	0.00	0.00	0.000	0.000	0.000	100%	Wood, Plastic
BenzoFlex 352	10.25	100.00%	0.00%	100.00%	0.00%	0.00%	0.0600	0.500	10.3	10.3	0.308	7.38	1.35	0.000	N/A	100%	Wood, Plastic
Dynosolve CU-6	8.83	0.99%	0.00%	0.99%	0.00%	99.9%	0.0200	0.500	0.09	0.09	0.00	0.02	0.004	0.000	0.088	100%	Wood, Plastic

PM Control Efficiency: 0.00%
Subtotal Uncontrolled 0.31 7.40 1.35 0.000
Subtotal Controlled 0.31 7.40 1.35 0.000

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Type of Material coated
Plant 9																	
<i>Bus Assembly 1</i>																	
Spray Rite High Temp Spray Adhesive	5.0	65.0%	20.0%	45.0%	20.0%	15.00%	0.9500	0.250	2.81	2.25	0.53	12.83	2.34	0.455	15.0	75%	Plastic, Metal
Silaprene	9.75	6.30%	0.0%	6.3%	93.7%	93.70%	1.0250	0.250	9.75	0.61	0.16	3.78	0.689	0.000	N/A	100%	Plastic
Sika Tack Ultrafast Adhesive	10.83	5.0%	0.0%	5.0%	95.0%	95.00%	0.1790	0.250	10.83	0.54	0.02	0.58	0.106	0.000	N/A	100%	Plastic
Premium Adhesive 7227	6.64	40.05%	30.0%	10.1%	30.00%	20.95%	0.1140	0.250	0.95	0.67	0.02	0.46	0.083	0.000	N/A	100%	Rubber, Plastic
Surebond 190 Adhesive	7.66	38.0%	0.0%	38.0%	0.0%	62.00%	0.1250	0.250	2.91	2.91	0.09	2.18	0.398	0.000	N/A	100%	Rubber
IsoGrip Adhesive Laminator SP 3030 D	9.16	0.0%	0.0%	0.0%	0.0%	100.00%	0.0090	0.250	0.00	0.00	0.00	0.00	0.000	0.000	N/A	100%	Wood
Surebond SB299 Sealant	9.75	8.0%	0.0%	8.0%	0.0%	92.00%	1.8880	0.250	0.78	0.78	0.37	8.84	1.61	0.000	N/A	100%	Plastic
Citra-Solve	6.62	100%	0.0%	100.0%	0.0%	0.00%	0.2510	0.250	6.62	6.62	0.42	9.97	1.82	0.000	N/A	100%	Plumbing
DAP Black Touch N Tone Spray Paint	5.58	65.0%	30.0%	35.0%	30.0%	5.00%	0.0080	0.250	2.79	1.95	0.00	0.09	0.017	0.004	39.1	75%	Plastic
Buckey XL100	8.41	95.0%	83.0%	12.0%	83.0%	5.00%	0.0680	0.250	5.94	1.01	0.02	0.41	0.075	0.000	N/A	100%	Plastic
Sikaflex 221	9.91	4.40%	0.0%	4.4%	0.0%	95.60%	0.0380	0.250	0.44	0.44	0.00	0.10	0.018	0.000	N/A	100%	Plastic, Metal
3M UltraPro Autobody Sealant	9.91	5.00%	0.0%	5.0%	0.0%	95.00%	0.0030	0.250	0.50	0.50	0.00	0.01	0.002	0.000	N/A	100%	Rubber
Final Kleen - 3901-S	6.05	100%	0.0%	100.0%	0.0%	0.00%	0.1280	0.250	6.05	6.05	0.19	4.65	0.848	0.000	N/A	100%	ABS Plastic
Premium Adhesive 7355	7.09	75.0%	75.0%	0.0%	75.0%	25.00%	0.1250	0.250	0.00	0.00	0.00	0.00	0.000	0.000	N/A	100%	ABS Plastic
Red/Blue Hardener	10.0	20.0%	20.0%	0.0%	20.0%	80.00%	0.0010	0.250	0.00	0.00	0.00	0.00	0.000	0.000	N/A	100%	Rubber

PM Control Efficiency: 0.00%
Subtotal Uncontrolled 1.83 43.89 8.01 0.459
Subtotal Controlled 1.83 43.89 8.01 0.459

**Appendix A: Emissions Calculations
VOC and Particulate
From Plant 9 Surface Coating Operations (Continued)**

**Company Name: Forest River, Inc., Glaval Bus Division
Address City IN Zip: 55135 CR 1 and 914 CR 1, Elkhart, IN 46514
Permit Number: MSOP 039-17630
Plt ID: 039-00126
Reviewer: Michael S. Schaffer
Application Date: May 9, 2003**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Type of Material coated
Plant 9																	
<i>B and C Assembly Area</i>																	
Lap Sealant	9.9	32.50%	0.00%	32.5%	0.00%	67.50%	0.4980	0.250	3.22	3.22	0.40	9.62	1.76	0.000	4.77	100%	Rubber
Oatey ABS Cement	7.25	78.00%	0.00%	78.0%	0.00%	22.00%	0.0250	0.250	5.66	5.66	0.04	0.85	0.155	0.000	25.70	100%	ABS Plastic
Oatey Cleaner	6.61	100.00%	10.00%	90.0%	10.00%	0.00%	0.0040	0.250	6.61	5.95	0.01	0.14	0.026	0.000	N/A	100%	ABS Plastic
Construction Silicone	8.66	5.00%	0.00%	5.0%	0.00%	95.00%	0.2000	0.250	0.43	0.43	0.02	0.52	0.095	0.000	0.46	100%	Rubber, Plastic
Bonding Cement	8.20	50.00%	49.90%	0.1%	49.90%	50.00%	1.0800	0.250	0.02	0.01	0.00	0.05	0.010	0.000	0.02	100%	Rubber
Super Bond 4H	7.50	72.30%	0.00%	72.3%	0.00%	27.70%	0.2200	0.250	5.42	5.42	0.30	7.16	1.31	0.000	19.58	100%	Fabric
WEB 76 Adhesived	5.83	77.20%	25.00%	52.2%	25.00%	16.00%	0.3100	0.250	4.06	3.04	0.24	5.66	1.03	0.000	19.02	100%	Fabric
Panel Hold Black RV Foam	8.41	14.20%	0.00%	14.2%	0.00%	85.80%	0.9200	0.250	1.19	1.19	0.27	6.59	1.20	0.000	N/A	100%	Panel Glue
Panel Hold Cleaner	6.58	100.00%	85.00%	15.0%	85.00%	0.00%	0.0090	0.250	6.58	0.99	0.00	0.05	0.010	0.000	N/A	100%	Panel Glue
Denatured Alcohol	6.76	100.00%	7.00%	93.0%	7.00%	0.00%	0.0090	0.250	6.76	6.29	0.01	0.34	0.062	0.000	N/A	100%	Plastic, Metal
Ethanol	6.70	100.00%	5.00%	95.0%	5.00%	0.00%	0.2100	0.250	6.70	6.37	0.33	8.02	1.46	0.000	N/A	100%	Plastic, Metal
Battery Protector C121	6.00	73.00%	7.00%	66.0%	7.00%	20.00%	0.0120	0.250	4.26	3.96	0.01	0.29	0.052	0.000	19.80	100%	Battery
Citra Foam	7.96	100.00%	0.00%	100.0%	0.00%	0.00%	0.0670	0.250	7.96	7.96	0.13	3.20	0.584	0.000	N/A	100%	Plastic
Color Flex	13.16	17.00%	0.00%	17.0%	0.00%	83.00%	0.1800	0.250	2.24	2.24	0.10	2.42	0.441	0.000	2.70	100%	Wood
Spray N Go Paint	6.66	75.20%	0.00%	75.2%	0.00%	24.80%	0.9840	0.250	5.01	5.01	1.23	29.57	5.40	0.445	20.19	75%	Metal (Auto Ref)
Glass Cleaner	8.25	93.50%	93.50%	0.0%	93.50%	7.50%	0.2400	0.250	0.00	0.00	0.00	0.00	0.000	0.035	0.00	75%	Glass
Instand Bond White Glue	9.16	72.00%	71.50%	0.5%	71.50%	28.00%	1.2000	0.250	0.16	0.05	0.01	0.33	0.060	0.000	0.16	100%	Wood
Mastic	12.50	0.00%	0.00%	0.0%	0.00%	100.00%	0.4300	0.250	0.00	0.00	0.00	0.00	0.000	0.000	0.00	100%	Plastic
Brake & Parts Cleaner	12.00	100.00%	72.00%	28.0%	72.00%	0.00%	0.0010	0.250	12.00	3.36	0.00	0.02	0.004	0.000	N/A	100%	Engine Parts
Mineral Spirits	6.31	100.00%	0.00%	100.0%	0.00%	0.00%	0.0050	0.250	6.31	6.31	0.01	0.19	0.035	0.000	N/A	100%	Metal
Geocell 2320	7.91	35.10%	0.00%	35.1%	0.00%	64.90%	0.0457	0.250	2.78	2.78	0.03	0.76	0.139	0.000	4.28	100%	Plastic
DAP 4000 Construction Adhesive	8.85	38.70%	0.00%	38.7%	0.00%	61.30%	0.2600	0.250	3.42	3.42	0.22	5.34	0.975	0.000	5.59	100%	Lam. Floor
Elastomeric Clear Sealant	7.83	32.50%	0.00%	32.5%	0.00%	65.00%	0.1500	0.250	2.54	2.54	0.10	2.29	0.418	0.000	3.92	100%	Plastic
Sta-Put 2001M	5.91	75.00%	0.00%	75.0%	0.00%	25.00%	0.5430	0.250	4.43	4.43	0.60	14.44	2.64	0.220	17.73	75%	Fabric
3M SuperDuty Rubbing Compound	8.33	44.20%	17.90%	26.3%	17.90%	55.80%	0.0080	0.250	2.67	2.19	0.00	0.11	0.019	0.000	3.93	100%	Metal
Finishing Putty (Icing)	9.58	24.50%	0.00%	24.5%	0.00%	75.50%	0.0080	0.250	2.35	2.35	0.00	0.11	0.021	0.000	3.11	100%	Plastic
Enerbond 45 SF	10.00	100.00%	0.00%	100.0%	0.00%	0.00%	0.3420	0.250	N/A	10.00	0.86	20.52	3.74	0.000	N/A	100%	Plastic, Laminate
Enerbond 10 Cleaner	7.98	95.80%	0.00%	95.8%	0.00%	4.20%	0.0010	0.250	7.64	7.64	0.00	0.05	0.008	0.000	N/A	75%	Plastic, Laminate
Gelcoat Filon Panel White	10.83	36.70%	0.00%	36.7%	0.00%	63.30%	0.0200	0.250	3.97	3.97	0.02	0.48	0.087	0.000	6.28	100%	Plastic
3M Perfect It Foam Polishing Pad Glaze	8.78	86.00%	60.00%	26.0%	60.00%	14.00%	0.0020	0.250	5.71	2.28	0.00	0.03	0.005	0.000	16.31	100%	Fabric
ITW Foamseal S11608	9.83	39.00%	0.00%	39.0%	0.00%	61.00%	0.3940	0.250	3.83	3.83	0.38	9.06	1.65	0.000	6.28	100%	Plastic, Metal
ITW Foamseal FSA	10.33	0.00%	0.00%	0.0%	0.00%	100.00%	0.3940	0.250	N/A	0.00	0.00	0.00	0.000	0.000	N/A	100%	Plastic, Metal
Feather Rite Body Filler	9.66	18.60%	0.00%	18.6%	0.00%	81.40%	0.0010	0.250	1.80	1.80	0.00	0.01	0.002	0.000	2.21	100%	Plastic
Lacquer Thinner	7.00	100.00%	0.00%	100.0%	0.00%	28.13%	0.0030	0.250	7.00	7.00	0.01	0.13	0.023	0.000	24.88	100%	Metal, Plastic

Note that all coatings are "as applied" to the applicators

PM Control Efficiency: 0.00%					
Subtotal Uncontrolled	5.35	128	23.4	0.700	
Subtotal Controlled	5.35	128	23.4	0.700	

State Potential Emissions

Add worst case coating to all solvents

Total Uncontrolled	10.73	257	47.0	5.77
Total Controlled	10.73	257	47.0	1.38

METHODOLOGY FOR PAGES 1 - 3

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

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

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

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

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

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

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

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations
HAPs From Plant 9 Surface Coating Operations**

**Company Name: Forest River, Inc., Glaval Bus Division
Address City IN Zip: 55135 CR 1 and 914 CR 1, Elkhart, IN 46514
Permit Number: MSOP 039-17630
Plt ID: 039-00126
Reviewer: Michael S. Schaffer
Application Date: May 9, 2003**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % EB	Weight % MIBK	Weight % Toluene	Weight % Xylene	Weight % MA	Weight % 1,2,4 TMB	Weight % Hexane	Weight % PCE	Weight % MeCl	Weight % DEHP	Weight % GE	Weight % Cumene	Weight % Styrene	Weight % VA	Weight % TCE	MEK PTE (ton/yr)	EB PTE (ton/yr)	MIBK PTE (ton/yr)	Toluene PTE (ton/yr)	Xylene PTE (ton/yr)	MA PTE (ton/yr)	1,2,4 TMB PTE (ton/yr)	Hexane PTE (ton/yr)	PCE PTE (ton/yr)	MeCl PTE (ton/yr)	DEHP PTE (ton/yr)	GE PTE (ton/yr)	Cumene PTE (ton/yr)	Styrene PTE (ton/yr)	VA PTE (ton/yr)	TCE PTE (ton/yr)	Subtotal PTE (ton/yr)																		
Plant 9																																																						
Roll Coater-1 (Hot Melt Roller)																																																						
Dynalake Roll Cleaner	8.00	0.0090	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
Everlock 2U265	7.66	2.0000	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
Subtotal																				0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % EB	Weight % MIBK	Weight % Toluene	Weight % Xylene	Weight % MA	Weight % 1,2,4 TMB	Weight % Hexane	Weight % PCE	Weight % MeCl	Weight % DEHP	Weight % GE	Weight % Cumene	Weight % Styrene	Weight % VA	Weight % TCE	MEK PTE (ton/yr)	EB PTE (ton/yr)	MIBK PTE (ton/yr)	Toluene PTE (ton/yr)	Xylene PTE (ton/yr)	MA PTE (ton/yr)	1,2,4 TMB PTE (ton/yr)	Hexane PTE (ton/yr)	PCE PTE (ton/yr)	MeCl PTE (ton/yr)	DEHP PTE (ton/yr)	GE PTE (ton/yr)	Cumene PTE (ton/yr)	Styrene PTE (ton/yr)	VA PTE (ton/yr)	TCE PTE (ton/yr)	Subtotal PTE (ton/yr)																		
Plant 9																																																						
Bead Application 1 & 2																																																						
Hybond SIA 113	9.16	2.0000	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
BenzoFlex 352	10.25	0.0600	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
Dynasolve CU-6	8.83	0.0200	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
Subtotal																				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % EB	Weight % MIBK	Weight % Toluene	Weight % Xylene	Weight % MA	Weight % 1,2,4 TMB	Weight % Hexane	Weight % PCE	Weight % MeCl	Weight % DEHP	Weight % GE	Weight % Cumene	Weight % Styrene	Weight % VA	Weight % TCE	MEK PTE (ton/yr)	EB PTE (ton/yr)	MIBK PTE (ton/yr)	Toluene PTE (ton/yr)	Xylene PTE (ton/yr)	MA PTE (ton/yr)	1,2,4 TMB PTE (ton/yr)	Hexane PTE (ton/yr)	PCE PTE (ton/yr)	MeCl PTE (ton/yr)	DEHP PTE (ton/yr)	GE PTE (ton/yr)	Cumene PTE (ton/yr)	Styrene PTE (ton/yr)	VA PTE (ton/yr)	TCE PTE (ton/yr)	Subtotal PTE (ton/yr)		
Plant 9																																						
Bus Assembly 1																																						
Spray Rite High Temp Spray Adhesive	5.0	0.9500	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Silaprene	9.75	1.0250	0.250	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.547	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.547
Premium Adhesive 7227	6.64	0.1140	0.250	0.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.332	0.000	0.000	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.414	
Surebond 190 Adhesive	7.66	0.1250	0.250	0.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.419	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.419	
TacGrip Adhesive	9.16	0.0090	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Laminator SP 3030 D	9.16	0.0090	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Surebond SB239 Sealant	9.75	1.8880	0.250	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	1.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.008	
Citra-Solve	6.62	0.2510	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
DAP Black Touch N Tone Spray Paint	5.58	0.0080	0.250	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007		
Buckey XL100	8.41	0.0680	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Sikaflex 221	9.91	0.0380	0.250	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021		
3M UltraPro Autobody Sealant	9.91	0.0030	0.250	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002		
Final Kleen - 3901-S	6.05	0.1280	0.250	0.00%	0.00%	0.00%	13.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.110	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.127		
Premium Adhesive 7355	7.09	0.1250	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Red/Blue Hardener	10.0	0.0010	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Subtotal																				0.000	0.000	0.000	0.87	1.70	0.000	0.000	0.083	0.000										

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

Company Name: Forest River, Inc., Glaval Bus Division
Address City IN Zip: 55135 CR 1 and 914 CR 1, Elkhart, IN 46514
Permit Number: MSOP 039-17630
Plt ID: 039-00126
Reviewer: Michael S. Schaffer
Application Date: May 9, 2003

**Thirty-nine (39) space heaters rated @ 1.04 mmBtu/hr, each
1 air makeup unit rated @ 1.80 mmBtu/hr, each**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

42.4

371

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100 **see below	5.50	84.0
Potential Emission in tons/yr	0.353	1.41	0.111	18.6	1.02	15.6

*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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 8 for HAPs emissions calculations.

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

Company Name: Forest River, Inc., Glaval Bus Division
Address City IN Zip: 55135 CR 1 and 914 CR 1, Elkhart, IN 46514
Permit Number: MSOP 039-17630
Plt ID: 039-00126
Reviewer: Michael S. Schaffer
Application Date: May 9, 2003

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 0.00210	Dichlorobenzene 0.00120	Formaldehyde 0.07500	Hexane 1.80000	Toluene 0.00340
Potential Emission in tons/yr	0.0004	0.0002	0.014	0.334	0.0006

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	Total
Potential Emission in tons/yr	0.00009	0.0002	0.0003	0.00007	0.0004	0.350

Methodology is the same as page 7.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Welding and Thermal Cutting**

**Company Name: Forest River, Inc., Glaval Bus Division
Address City IN Zip: 55135 CR 1 and 914 CR 1, Elkhart, IN 46514
Permit Number: MSOP 039-17630
Plt ID: 039-00126
Reviewer: Michael S. Schaffer
Application Date: May 9, 2003**

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING											
Metal Inert Gas (MIG)	51	0.21	0.0055	0.0005			0.059	0.005	0.000	0.000	0.005
EMISSION TOTALS											
Potential Emissions lbs/hr							0.059	0.005	0.000	0.000	0.005
Potential Emissions lbs/day							1.41	0.129	0.000	0.000	0.129
Potential Emissions tons/year							0.258	0.023	0.000	0.000	0.023

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

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

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day