



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: July 8, 2008

RE: Forest River, Inc. / 039-26183-00471

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07



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Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

Forest River, Inc.
201 West Elm Street and 66135 S.R.13
Millersburg, Indiana 46543

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

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

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

Operation Permit No.: M039-26183-00471	
Issued by:	Issuance Date: July 8, 2008
<i>Original document signed by</i>	Expiration Date: July 8, 2018
Iryn Calilung, Section Chief Permits Branch Office of Air Quality	

TABLE OF CONTENTS

A. SOURCE SUMMARY

- A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]
- A.2 Source Definition [326 IAC 1-2-73]
- A.3 Emission Units and Pollution Control Equipment Summary

B. GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-1.1-1]
- B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
- B.3 Term of Conditions [326 IAC 2-1.1-9.5]
- B.4 Enforceability
- B.5 Severability
- B.6 Property Rights or Exclusive Privilege
- B.7 Duty to Provide Information
- B.8 Certification
- B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]
- B.10 Preventive Maintenance Plan [326 IAC 1-6-3]
- B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]
- B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]
- B.13 Permit Renewal [326 IAC 2-6.1-7]
- B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]
- B.15 Source Modification Requirement
- B.16 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]
- B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]
- B.18 Annual Fee Payment [326 IAC 2-1.1-7]
- B.19 Credible Evidence [326 IAC 1-1-6]

C. SOURCE OPERATION CONDITIONS

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

- C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
- C.2 Permit Revocation [326 IAC 2-1.1-9]
- C.3 Opacity [326 IAC 5-1]
- C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.6 Fugitive Dust Emissions [326 IAC 6-4]
- C.7 Stack Height [326 IAC 1-7]
- C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

- C.9 Performance Testing [326 IAC 3-6]

Compliance Requirements [326 IAC 2-1.1-11]

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

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

- C.11 Compliance Monitoring [326 IAC 2-1.1-11]
- C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]
- C.13 Instrument Specifications [326 IAC 2-1.1-11]

Corrective Actions and Response Steps

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

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

- C.15 Malfunctions Report [326 IAC 1-6-2]
- C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]
- C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2]
[IC 13-14-1-13]

D.1 EMISSIONS UNIT OPERATION CONDITIONS - Coating Operations

Emission Limitations and Standards

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements

- D.1.3 Volatile Organic Compounds
- D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Record Keeping and Reporting Requirements

- D.1.5 Record Keeping Requirements

D.2 EMISSIONS UNIT OPERATION CONDITIONS - Wood Working Operations, Welding Operations and Space Heaters

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

- D.2.1 Particulate [326 IAC 6-3-2]
- D.2.2 Particulate [326 IAC 6-3-2]
- D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements

- D.2.4 Particulate Control

Compliance Monitoring Requirements

- D.2.5 Broken or Failed Bag Detection

Annual Notification 20
Malfunction Report 21

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 recreational vehicles manufacturing source.

Source Address:	201 West Elm Street and 66135 S.R.13, Millersburg, Indiana 46543
Mailing Address:	P.O. Box 124, Goshen, IN 46527
General Source Phone Number:	(574) 533-5934
SIC Code:	3792
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Source Definition [326 IAC 1-2-73]

This stationary recreational vehicles manufacturing source consists of three plants:

- (a) Plant 1 is located at 201 West Elm Street, Millersburg, Indiana 46543; and
- (b) Plants 2 and 3 are located at 66135 S.R.13, Millersburg, Indiana 46543.

Since the three (3) plants are located on contiguous or adjacent properties, belong to the same industrial grouping, and are under common control of the same entity, they will be considered one (1) source, effective from the date of issuance of this MSOP.

A.3 Emission Units and Pollution Control Equipment Summary

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

- (a) Two (2) high volume low pressure (HVLP) spray guns, various aerosol spray cans and manual tube extrusion guns for coating recreational vehicles in the assembly area, with a maximum manufacturing capacity of one hundred ninety-two (192) recreational vehicles per day, with no add-on control devices. This facility was constructed prior to 1980. (Plant 1)
- (b) Two (2) recreational vehicle roof and wall lamination press operations, having a maximum laminating capacity of one hundred ninety-two (192) recreational vehicles per day. This facility was constructed prior to 1980. (Plant 1)
- (c) One (1) hot melt laminator, constructed in 2007, capable of processing 120 sheets (each luan sheet size is 4'x7' and weighs 11 pounds) luan sheets per hour. (Plant 3)
- (d) Two (2) bead applicators, each capable of pre-processing 80 (30'x7') side walls or roofs per day. (Plant 3)

- (e) Two (2) metal inert gas (MIG) welding operations consisting of two (2) welding stations, each consuming a maximum of 0.09 pounds of electrode per hour. This facility was constructed prior to 1980. (Plant 1)
- (f) One (1) cabinet woodworking shop consisting of table saws, radial arm saws, and chop saws, having a maximum throughput capacity of two hundred and thirty-five (235) pounds of prefinished lumber per hour, using a baghouse as control and exhausting to stack B. This facility was constructed prior to 1980. (Plant 2)
- (g) One (1) cabinet woodworking shop consisting of table saws, radial arm saws, and chop saws, having a maximum throughput capacity of two hundred and thirty-five (235) pounds of prefinished lumber per hour, using a baghouse as control and exhausting to stack A. This facility was constructed prior to 1980. (Plant 1)
- (h) Milling operations for the roof and wall construction operations, including an upright panel saw, a arm saw, a table saw, and a radial arm router, controlled by a dust collector (cyclone and baghouse in series), constructed in 2007, and exhausting to stack C. Each milling operation has a maximum throughput capacity of 5,964 pounds of luan per hour. (Plant 3)
- (i) Five (5) natural gas fired space heaters with a total rated maximum capacity of 13.50 million British thermal unit (MMBtu/hr), exhausting at stacks A1, A2, A3, A4, and A5, respectively. These units were installed in 1975. (Plant 1)
- (j) Two (2) natural gas fired space-heating units, constructed in 2003, with a total rated maximum capacity of 1.80 million British thermal unit (MMBtu/hr), and both exhausting to stack EA-1. (Plant 2)
- (k) Two (2) natural gas fired space heaters, constructed in 2007, each with a heat input capacity of 1.25 MMBtu per hour, each exhausting to its respective stack, identified as stacks EA-2 and EA-3, respectively. (Plant 3)

SECTION B GENERAL CONDITIONS

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

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

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

-
- (a) This permit, M039-26183-00471, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

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

B.5 Severability

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

B.6 Property Rights or Exclusive Privilege

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

B.7 Duty to Provide Information

-
- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

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

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

- (a) All terms and conditions of permits established prior to M039-26183-00471 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

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

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

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

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

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

B.15 Source Modification Requirement

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

B.16 Inspection and Entry

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.9 Performance Testing [326 IAC 3-6]

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.11 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.12 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.13 Instrument Specifications [326 IAC 2-1.1-11]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

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

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

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

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

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

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Two (2) high volume low pressure (HVLP) spray guns, various aerosol spray cans and manual tube extrusion guns for coating recreational vehicles in the assembly area, with a maximum manufacturing capacity of one hundred ninety-two (192) recreational vehicles per day, with no add-on control devices. This facility was constructed prior to 1980. (Plant 1)
- (b) Two (2) recreational vehicle roof and wall lamination press operations, having a maximum laminating capacity of one hundred ninety-two (192) recreational vehicles per day. This facility was constructed prior to 1980. (Plant 1)
- (c) One (1) hot melt laminator, constructed in 2007, capable of processing 120 sheets (each luan sheet size is 4'x7' and weighs 11 pounds) luan sheets per hour. (Plant 3)
- (d) Two (2) bead applicators, each capable of pre-processing 80 (30'x7') side walls or roofs per day. (Plant 3)

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

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating), the permittee during the metal coating operations at assembly area located at plant 1 shall not discharge into the atmosphere VOC in excess of the followings:
 - (1) Four and three-tenths (4.3) pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings.
 - (2) Three and five-tenths (3.5) pounds per gallon of coating excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to ninety (90) degrees Celsius (one hundred ninety-four (194) degrees Fahrenheit).
 - (3) Three and five-tenths (3.5) pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.
 - (4) Three (3) pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings and coating application systems.
- (b) Pursuant to 326 IAC 8-2-9(f), 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.

If more than one (1) emission limitation in 1 through 4 above apply to a specific coating, then the least stringent emission limitation above 1 through 4 shall be applicable.

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.3 Volatile Organic Compounds

The VOC composition of coatings as applied shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer. However, IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC limits in condition D.1.1 shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\sum (c \times U) / \sum U]$$

Where:

A is the volume weighted average in pounds VOC per gallon less water as applied;

C is the VOC content of the coating in pounds VOC per gallon less water as applied; and

U is the usage rate of the coating in gallons per day.

The Permittee is not required to determine volume weighted average of coatings for a given day, if compliant coatings are used on that day.

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

D.1.5 Record Keeping Requirements

- (a) To document compliance with condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC limits established in condition D.1.1.
- (1) The VOC content of each coating material and solvent used less water.
 - (2) The amount of coating material and solvent used on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvent; and
 - (3) The volume weighted average VOC content of the coatings used for each day. (The Permittee is not required to maintain a record of volume weighted average VOC content of the coatings for a given day, if compliant coatings are used on that day.)
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:	
(e)	Two (2) metal inert gas (MIG) welding operations consisting of two (2) welding stations, each consuming a maximum of 0.09 pounds of electrode per hour. This facility was constructed prior to 1980. (Plant 1)
(f)	One (1) cabinet woodworking shop consisting of table saws, radial arm saws, and chop saws, having a maximum throughput capacity of two hundred and thirty-five (235) pounds of prefinished lumber per hour, using a baghouse as control and exhausting to stack B. This facility was constructed prior to 1980. (Plant 2)
(g)	One (1) cabinet woodworking shop consisting of table saws, radial arm saws, and chop saws, having a maximum throughput capacity of two hundred and thirty-five (235) pounds of prefinished lumber per hour, using baghouses as control and exhausting to stack A. This facility was constructed prior to 1980. (Plant 1)
(h)	Milling operations for the roof and wall construction operations, including an upright panel saw, an arm saw, a table saw, and a radial arm router, controlled by a dust collector (cyclone and baghouse in series), constructed in 2007, and exhausting to stack C. Each milling operation has maximum throughput capacity is 5,964 pounds of luan per hour. (Plant 3)
(i)	Five (5) natural gas fired space heaters with a total rated maximum capacity of 13.50 million British thermal unit (MMBtu/hr), exhausting at stacks A1, A2, A3, A4, and A5. These units were installed in 1975. (Plant 1)
(j)	Two (2) natural gas fired space-heating units, constructed in 2003, with a total rated maximum capacity of 1.80 million British thermal unit (MMBtu/hr), and both exhausting to stack EA-1. (Plant 2)
(k)	Two (2) natural gas fired space heaters, constructed in 2007, each with a heat input capacity of 1.25 MMBtu per hour, each exhausting to its respective stack, identified as stacks EA-2 and EA-3, respectively. (Plant 3)
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)	

Emission Limitations and Standards [326 IAC 6-3-2]

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions shall not exceed pounds per hour limits as specified in the following table.

Process	Process Weight Rate for each operation (pounds of material processed per hour)	Particulate Emission Limit (pounds of particulate per hour)
Each Wood Working Operation at Plant 1	235	0.98
Each Wood Working Operation at Plant 2	235	0.98
Each Milling Operation at Plant 3	5964	8.53

D.2.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), the particulate emission from the welding operations at plant 2 shall not exceed 0.551 pounds per hour.

D.2.3 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 these facilities and its control devices.

Compliance Determination Requirements

D.2.4 Particulate Control

- (a) In order to comply with Condition D.2.1, the baghouse for particulate control shall be in operation and control emissions from the associated woodworking process at all times the woodworking process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements

D.2.5 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

**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.
Address:	201 West Elm Street and 66135 S.R.13
City:	Millersburg, Indiana 46543
Phone #:	(574) 533-5934
MSOP #:	M039-26183-00471

I hereby certify that Forest River, Inc. is :

still in operation.

no longer in operation.

I hereby certify that Forest River, Inc. is :

in compliance with the requirements of MSOP M039-26183-00471.

not in compliance with the requirements of MSOP M039-26183-00471.

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

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

Noncompliance:

MALFUNCTION REPORT

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

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (ATSD) for a Minor Source Operating Permit (MSOP) Renewal

Source Description and Location

Source Name: Forest River, Inc.
Source Location: 201 West Elm Street and 66135 S.R.13,
Millersburg, Indiana 46543
County: Elkhart
SIC Code: 3792
Permit Renewal No.: 039-26183-00471
Permit Reviewer: Mehul Sura

Public Notice Information

On June 3, 2008, the Office of Air Quality (OAQ) had a notice published in the *Goshen News*, Goshen, Indiana stating that IDEM had received an application from Forest River, Inc. located at 201 West Elm Street and 66135 S.R.13, Millersburg, Indiana 46543 for a renewal to their MSOP (039-16468-00471) issued on May 28, 2003. The notice also stated that OAQ proposed to issue this renewal and provided information on how the public could review the proposed renewal 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 renewal should be issued as proposed.

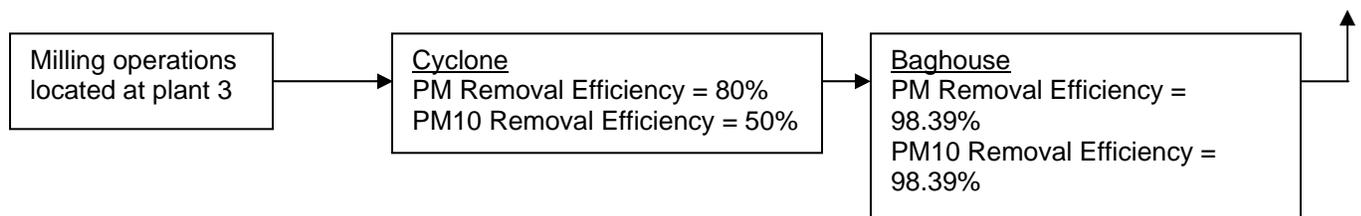
On June 3, 2008, Forest River, Inc. submitted comments on the proposed renewal which are listed below. Each comment is followed by IDEM response. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**.

Comment 1:

The potential PM and PM emissions for the new milling operations located at plant 3 are overestimated by IDEM. Please use the same methodology used for identical control devices operating under MSOP No. 087-25098-00052 at Forest River, Inc., Cherokee Division (located at 402 Lehman Avenue, Topeka, Indiana 46571). The control equipment used for the new milling operations located at plant 3 are the same make and model as the control equipment used at Forest River, Inc., Cherokee Division, therefore, there should be no inconsistencies between calculation methodologies. This, again, will ensure IDEMs stated goal of writing consistent permits.

Response 1:

The cyclone and baghouse are connected in series to control the PM and PM10 emissions from the new milling operations located at plant 3 as shown in the following diagram:



Since Forest River, Inc. is not claiming that the cyclone and baghouse are integral to the milling operations, the PM and PM10 emission rates at a location after the milling operations and before the cyclone represent the uncontrolled emission rates for the milling operations. Therefore, no changes have been made due to this comment.

Comment 2:

The potential emission calculation methodologies submitted to IDEM for the bead applicators and the hot melt laminator were similar. However, the Technical Support Document (TSD) states that there are no emissions from the bead applicators, and that there are emissions from the hot melt laminator. The calculations submitted to IDEM stated that the emissions from the bead applicators are 5.12E-5 tons per year and the emissions from the hot melt laminator are 1.749E-4 tons per year. If the determination was made by IDEM that there are no emissions from the bead applicators, then a similar determination should be made that there are no emissions from the hot melt laminator. The calculation methodologies for the bead applicators and hot melt laminator are very similar, and emissions from these emission units are negligible.

Response 2:

No changes have been made due to this comment because the bead applicators and also the hot melt laminator are already specified in the permit and indicated to have negligible emissions.

Comment 3:

Forest River, Inc. does not agree that the emission units listed below are operated without approvals. These emission units can be included in the permit through an administrative amendment as pursuant to 326 IAC 2-6.1-6(d)(2), and therefore, no prior approvals were needed for these emission units. Forest River, Inc. was required to notify IDEM after these emission units were installed but it does not agree that these emission units are constructed and operated without approvals.

- (a) One (1) hot melt laminator, constructed in 2007, capable of processing 120 sheets (each luan sheet size is 4'x7' and weighs 11 pounds) luan sheets per hour. (Plant 3)
- (b) Milling operations for the roof and wall construction operations, including an upright panel saw, an arm saw, a table saw, and a radial arm router, controlled by a dust collector (cyclone and baghouse in series), constructed in 2007, and exhausting to stack C. Each milling operation has maximum throughput capacity of 5,964 pounds of luan per hour. (Plant 3)
- (c) Two (2) natural gas fired space heaters, constructed in 2007, each with a heat input capacity of 1.25 MMBtu per hour, each exhausting to its respective stack, identified as stacks EA-2 and EA-3, respectively. (Plant 3)
- (d) Two (2) bead applicators, each capable of pre-processing 80 (30'x7') side walls or roofs per day. (Plant 3)

Response 3:

Upon reevaluation of the PTE of the emission units mentioned above, IDEM agrees that:

- (a) The hot melt laminator and bead applicators can be included in the permit through an administrative amendment as pursuant to 326 IAC 2-6.1-6(d)(2) because the emissions from these emission units are negligible. Therefore, the hot melt laminator and bead

applicators were subject to notification requirement, and were not subject to construction and operation approvals.

- (b) The space heaters located at plant 3 can be included in the permit through an administrative amendment as pursuant to 326 IAC 2-6.1-6(d)(13) because these space heaters are of the same type that are already permitted (under MSOP 039-16468-00471, issued on May 23, 2003 for this source) and will comply with the same applicable requirements and permit terms and conditions as the existing space heaters. Therefore, the space heaters were subject to notification requirement, and were not subject to construction and operation approvals.
- (c) The milling operations located at plant 3 can be included in the permit through an administrative amendment as pursuant to 326 IAC 2-6.1-6(d)(13) because these milling operations are of the same type that are already permitted (under MSOP 039-16468-00471, issued on May 23, 2003 for this source) and will comply with the same applicable requirements and permit terms and conditions as the existing milling operations. Therefore, the milling operations located at plant 3 were subject to notification requirement, and were not subject to construction and operation approvals.

In conclusion, the hot melt laminator, bead applicators, space heaters and milling operations were not subject to construction and operation approvals, therefore no enforcement actions are needed for these emission units. Following changes (due to this comment) have been made in the 'Enforcement Issue' section of TSD:

Enforcement Issue

~~IDEM is aware that the Milling operations listed in the section entitled "Emission Units and Pollution Control Equipment Operated without a Permit" of this Technical Support Document had been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.~~
There are no enforcement actions pending.

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

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

Source Background and Description

Source Name:	Forest River, Inc.
Source Location:	201 West Elm Street and 66135 S.R.13, Millersburg, Indiana 46543
County:	Elkhart
SIC Code:	3792
Operation Permit No.:	039-26183-00471
Permit Reviewer:	Mehul Sura

The Office of Air Quality (OAQ) has reviewed an application from Forest River, Inc., Millersburg relating to the operation of a recreational vehicles manufacturing plant.

History

On February 28, 2008, Forest River, Inc. submitted an application to the OAQ requesting to renew its operating permit. Forest River, Inc. was issued a MSOP on May 28, 2003. The source has since received the following approval: Notice-Only Change No. 039-19572-00471, issued on September 14, 2004.

Source Definition

This source consists of plant 1 located at 201 West Elm Street, Millersburg, Indiana 46543 and plant 2 located at 66135 S.R.13, Millersburg, Indiana 46543. The source has also constructed a new plant (plant 3), which is located at 66135 S.R.13, Millersburg, Indiana 46543. All three plants are located on contiguous properties, have the same SIC code of 3792 and are under common control, therefore all three plants will be considered as the part of one source.

Permitted Emission Units and Pollution Control Equipment

- (a) Two (2) high volume low pressure (HVLP) spray guns, various aerosol spray cans and manual tube extrusion guns for coating recreational vehicles in the assembly area, with a maximum manufacturing capacity of one hundred ninety-two (192) recreational vehicles per day, with no add-on control devices. This facility was constructed prior to 1980. (Plant 1)
- (b) Two (2) recreational vehicle roof and wall lamination press operations, having a maximum laminating capacity of one hundred ninety-two (192) recreational vehicles per day. This facility was constructed prior to 1980. (Plant 1)
- (c) One (1) cabinet woodworking shop consisting of table saws, radial arm saws, and chop saws, having a maximum throughput capacity of two hundred and thirty-five (235) pounds of prefinished lumber per hour, using a baghouse as control and exhausting to stack A. This facility was constructed prior to 1980. (Plant 1)
- (d) Two (2) metal inert gas (MIG) welding operations consisting of two (2) welding stations, each consuming a maximum of 0.09 pounds of electrode per hour. This facility was constructed prior to 1980. (Plant 1)

- (e) One (1) cabinet woodworking shop consisting of table saws, radial arm saws, and chop saws, having a maximum throughput capacity of two hundred and thirty-five (235) pounds of prefinished lumber per hour, using a baghouse as control and exhausting to stack B. This facility was constructed prior to 1980. (Plant 2)
- (f) Five (5) natural gas fired space heaters with a total rated maximum capacity of 13.50 million British thermal unit (MMBtu/hr), exhausting at stacks A1, A2, A3, A4, and A5, respectively. These units were installed in 1975. (Plant 1)
- (g) Two (2) natural gas fired space-heating units, constructed in 2003, with a total rated maximum capacity of 1.80 million British thermal unit (MMBtu/hr), and both exhausting to stack EA-1. (Plant 2)

Emission Units and Pollution Control Equipment operating without a Permit

The source also consists of the following emission units that are operating without a permit:

- (a) One (1) hot melt laminator, constructed in 2007, capable of processing 120 sheets (each luan sheet size is 4'x7' and weighs 11 pounds) luan sheets per hour. (Plant 3)
- (b) Milling operations for the roof and wall construction operations, including an upright panel saw, an arm saw, a table saw, and a radial arm router, controlled by a dust collector (cyclone and baghouse in series), constructed in 2007, and exhausting to stack C. Each milling operation has maximum throughput capacity of 5,964 pounds of luan per hour. (Plant 3)
- (c) Two (2) natural gas fired space heaters, constructed in 2007, each with a heat input capacity of 1.25 MMBtu per hour, each exhausting to its respective stack, identified as stacks EA-2 and EA-3, respectively. (Plant 3)
- (d) Two (2) bead applicators, each capable of pre-processing 80 (30'x7') side walls or roofs per day. (Plant 3)

Existing Approvals

Since the issuance of the MSOP 039-16468-00471 on May 28, 2003, the source has constructed or has been operating under the following approval as well: Notice-Only Change No. 039-19572-00471, issued on September 14, 2004.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

IDEM is aware that emission units listed in the section entitled "Emission Units and Pollution Control Equipment Operated without a Permit" of this Technical Support Document had been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

The potential total emission (PTE) calculations for the one (1) hot melt laminator (located at plant 3) and two (2) bead applicators (located at plant 3), submitted by the applicant, have been verified

and found to be accurate and correct. The PTE summary of these emission units and detailed PTE calculations for the remaining emission units at the source have been provided in Appendix A of this document.

County Attainment Status

The source is located in Elkhart County

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (3) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

(c) Other Criteria Pollutants

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

Unrestricted Potential Emissions

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is still less than 100 tons per year. The source is still not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP Renewal.
- (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.
- (c) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Federal Rule Applicability

New Source Performance Standards (NSPS)

- (a) **Subpart EE - Standards of Performance for Surface Coating of Metal Furniture**
The source is not subject to the requirements of this NSPS because the coating operations at the source do not coat metal furniture.
- (b) **Subpart MM - Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations**
The source is not subject to the requirements of this NSPS because the source does not assemble automobile and light duty trucks.
- (c) There are no other NSPS (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) **Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources**
The requirements of this NESHAP apply to an area source of HAPs which is involved in any of the following activities:
 - (a) Performs Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl) (Chemical Abstract Service number 75092) in paint removal processes.
 - (b) Performs spray coatings (containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd)) operations for autobody refinishing and mobile equipment.
 - (c) Performs spray coatings (containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd)) operations for any part or product made of metal or plastic, or combinations of metal and plastic.

The source does not perform any paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl) (Chemical Abstract Service number 75092) in paint removal processes. The source performs metal coating (miscellaneous coating) operations, however the source does not use any coatings that contain chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). Therefore, this NESHAP does not apply the source.

- (b) There are no other NESHAP (326 IAC 20 and 40 CFR Part 63) included in the permit for this source, since this source is not a major source of HAPs.

Compliance Assurance Monitoring (CAM)

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

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)

The source is not subject to 326 IAC 1-5-2, because the potential to emit of any pollutant is less than one hundred (100) tons per year.

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source is subject to 326 IAC 1-6-3, because the source is required have a permit under 326 IAC-2-6.1 (Minor Source Operating Permit (MSOP)).

326 IAC 2-6 (Emission Reporting)

This rule does not apply to the source due to the following reasons:

- (a) The source is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program.
- (b) The source is not located in Lake or Porter County.
- (c) The source does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), 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.

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because source-wide PTE of any single HAP and combined HAPs are less than 10 and 25 tons per year, respectively.

326 IAC 6-4 (Fugitive Dust Emissions)

This rule applies to all fugitive dust sources. (A fugitive dust means the generation of particulate matter to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.)

Pursuant to 326 IAC 6-4-2(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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This rule applies to a source that has potential fugitive particulate emissions (after the effect of any controls) are equal to or greater than 25 tons per year. (A fugitive particulate matter emissions means particulate matter which is emitted from any source by means other than a stack.) The potential fugitive particulate emissions (after the effect of any controls) from the source (Forest River, Inc.) are less than 25 tons per year. Therefore, the requirements of this rule are not applicable to the source.

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

The requirements of 326 IAC 8-1-6 apply to a facility that meets the following criteria:

- (a) is constructed after 1979
- (b) has potential emissions of twenty-five (25) tons or more per year;
- (c) is located anywhere in the state; and
- (d) is not otherwise regulated by:
 - (A) other provisions of article 8;
 - (B) 326 IAC 20-48; or
 - (C) 326 IAC 20-56.

None of the facilities at the source are subject to the requirements of 326 IAC 8-1-6 because each facility at the source has either VOC potential emissions less than twenty-five (25) tons per year or was constructed before 1980.

326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)

The coating operations at the source do not include passenger cars or passenger car derivatives. Therefore, the source is not subject to the requirements of 326 IAC 8-2-2.

326 IAC 8-2-6 (Metal Furniture Coating Operations)

The coating operations at the source do not include metal furniture. Therefore, the the source is not subject to the requirements of 326 IAC 8-2-6.

326 IAC 8-2-10 (Flat wood panels; manufacturing operations)

The requirements of 326 IAC 8-2-10 apply to flat wood panels manufacturing operations. The source does not manufacture wood panels. Therefore, the source is not subject to the requirements of 326 IAC 8-2-10.

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

The requirements of 326 IAC 8-2-12 apply to surface coated wood furnishings which include cabinets (kitchen, bath and vanity), tables, beds, chairs, sofas (non-upholstered), art objects, and any other coated furnishings made of solid wood, wood composition or simulated wood material.

The coating operations at the source do not include wood furniture and cabinet. Therefore, the requirements of 326 IAC 8-2-12 are not applicable to the source.

326 IAC 8-5 Miscellaneous Operations

The source existed at the time of this rule applicability date (January 1, 1980), and is located in Elkhart County. However, no specific requirements for the type of operations at the source are included in this rule.

326 IAC 8-6 Organic Solvent Emissions

The requirements of 326 IAC 8-6 apply to a source commencing operation after October 7, 1974 and prior to January 1, 1980, with potential emissions of 100 tons or greater per year of VOC, and not limited by other provisions of 326 IAC 8. The source has VOC potential emissions less than 100 tons per year. Therefore, requirements of 326 IAC 8-6 do not apply to the source.

326 IAC 8-10 (Automobile Refinishing)

The requirements of 326 IAC 8-10 do not apply to the source because the source is not located in Clark, Floyd, Lake or Porter County.

326 IAC 8-11 (Wood Furniture Coating)

The requirements of 326 IAC 8-11 do not apply to the source because the source does not meet the definition of 'Wood Furniture Source' as defined in 326 8-11-2(41), and is not located in Clark, Floyd, Lake or Porter County.

State Rule Applicability - Metal coating operations at the recreational vehicles assembly facility located at plant 1

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

The requirements of 326 IAC 8-2-9 apply to any coating facility which meets the following criteria:

- (a) is considered as an existing facility as of July 1, 1990;
- (b) is located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph Counties; and
- (c) uses more than 15 pounds of VOC per day for the coating operations, which involve metal parts or products under the Standard Industrial Classification (SIC) Code of major groups #33, #34, #35, #36, #37, #38, or #39.

The source submitted additional information to IDEM on April 7, 2008, for the purpose of this MSOP Renewal application. This information revealed that the metal coating operations at the recreational vehicles assembly facility located at plant 1 use more than 15 pounds of VOC per day. Based on this information, IDEM has determined that the source is subject to the requirements of 326 IAC 8-2-9, because the recreational vehicles assembly facility located at plant 1 meets the 326 IAC 8-2-9 applicability criteria as listed above. Therefore the requirements of 326 IAC 8-2-9 will be added in this MSOP Renewal (the requirements of 326 IAC 8-2-9 were inadvertently omitted from the previously issued MSOP permit (MSOP No. 039-16468-00471, issued on May 3, 2003), and are being added now through this MSOP Renewal.

- (a) Pursuant to 326 IAC 8-2-9(d), the permittee during the metal coating operations shall not discharge into the atmosphere VOC in excess of the followings:

- (1) Fifty-two hundredths (0.52) kilogram per liter (four and three-tenths (4.3) pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies clear coatings.
- (2) Forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of coating excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to ninety (90) degrees Celsius (one hundred ninety-four (194) degrees Fahrenheit).
- (3) Forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.
- (4) Thirty-six hundredths (0.36) kilogram per liter (three (3) pounds per gallon) of coating, excluding water, delivered to a coating applicator for all other coatings and coating application systems.

If more than one (1) emission limitation in 1 through 4 above apply to a specific coating, then the least stringent emission limitation shall be applicable.

Pursuant to 326 IAC 8-1-2(a)(7), the Permittee shall demonstrate compliance using daily volume-weighted average of all coatings applied for the metal parts. Records of daily usage of gallons solids coating and VOC content of each coating and solvent shall be maintained and made available upon request. Also, records of daily emissions in pounds VOC shall be maintained and made available upon request.

(b) **For metal coating operations:**

Pursuant to 326 IAC 8-2-9(f), 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.

State Rule Applicability - Cabinet Woodworking Shop located at plant 1

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

The Cabinet Woodworking operations at plant 1 are subject to 326 IAC 6-3, because this manufacturing process is not listed in 326 IAC 6-3-1(b) and a particulate matter emission limit for this manufacturing process is not established under any other rules.

The process weight rate of each of the wood working operations is 235 pounds per hour. Pursuant to 326 IAC 6-3-2(e), the PM emission rate from each of the wood working operations at plant 1 shall not exceed 0.98 pounds per hour.

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

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

The source will be able to comply with the above PM emission limit (0.98 pounds per hour), because controlled PM emissions from each of woodworking operations is less than 0.98 pounds per hour.

State Rule Applicability - RV assembly area located at plant 1

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

The surface coating operations at the RV assembly area are not subject to the requirements of 326 IAC 6-3 because uncontrolled PTE of PM from the coating operations is less than 0.551 pounds per hour, and therefore, exempt (pursuant to 326 IAC 6-3-1(b)(14)) from the requirements of 326 IAC 6-3.

State Rule Applicability - Welding Operations located at plant 1

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

The welding operations are not subject to the requirements of 326 IAC 6-3, because the welding rod consumption at each welding station is less than 625 pound per day, and therefore, exempt (pursuant to 326 IAC 6-3-1(b)(9)) from the requirements of 326 IAC 6-3.

State Rule Applicability - Cabinet Woodworking Shop located plant 2

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

The Cabinet Woodworking operations at plant 2 are subject to 326 IAC 6-3, because this manufacturing process is not listed in 326 IAC 6-3-1(b) and a particulate matter emission limit for this manufacturing process is not established under any other rules.

The process weight rate of each of the wood working operations is 235 pounds per hour. Pursuant to 326 IAC 6-3-2(e), the PM emission rate from each of the wood working operations at plant 2 shall not exceed 0.98 pounds per hour.

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

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

The source will be able to comply with the above PM emission limit (0.98 pounds per hour), because controlled PM emissions from each of woodworking operation is less than 0.98 pounds per hour.

State Rule Applicability - Two (2) recreational vehicle roof and wall lamination press operations located plant 2, one (1) hot melt laminator located at plant 3 and two (2) bead applicators located at plant 3

326 IAC 8 (Volatile Organic Compound Rules)

These facilities are not subject to the requirements of 326 IAC 8, because the uncontrolled potential emissions of VOC from these facilities are less than 15 pound per day.

State Rule Applicability - Milling Operations located at plant 3

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

The milling operations at the plant 3 are subject to 326 IAC 6-3, because this manufacturing process is not listed in 326 IAC 6-3-1(b) and a particulate matter emission limit for this manufacturing process is not established under any other rules.

The process weight rate of each milling operations at plant 3 is 5964 pound of luan per hour. Pursuant to 326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes), the PM emission rate from each of the woodworking operations at plant 3 shall not exceed 8.53 pounds per hour.

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

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

The source will be able to comply with the above PM emission limit (8.53 pounds per hour), because uncontrolled PM emissions from each woodworking operation is less than 8.53 pounds per hour.

Recommendation

The staff recommends to the Commissioner that the MSOP Renewal 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 February 28, 2008. Additional information was received on April 7, 2008.

Conclusion

The operation of this recreational vehicles manufacturing plants shall be subject to the conditions of the attached MSOP Renewal No. 039-26183-00471.

**Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR<100
All Space Heating Units at the Source**

Company Name: Forest River, Inc.
Address City IN Zip: 201 West Elm Street and 66135 S.R.13, Millersburg, IN 46543
MSOP Renewal No. 039-26183-00471
Reviewer: Mehul Sura
Date: April 4, 2008

Total Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

17.8

155.9

	Pollutant					
	PM*	PM10*	SO ₂	NO _x	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.59	0.59	0.0	**see below	0.43	6.55

*PM and PM10 emission factors are filterable and condensible PM and PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.637E-04	9.356E-05	5.847E-03	1.403E-01	2.651E-04

	HAPs - Organics				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.898E-05	8.576E-05	1.091E-04	2.963E-05	1.637E-04

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 from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

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

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
VOC and Particulate
From RV Assembly Area Located at Plant 1**

Company Name: Forest River, Inc.
Address City IN Zip: 201 West Elm Street and 66135 S.R.13, Millersburg, IN 46543
MSOP Renewal No. 039-26183-00471
Reviewer: Mehul Sura
Date: April 4, 2008

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/yr)	Potential Particulate (lb/hr)	Potential Particulate (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Adhesive 676	6.26	79.20%	0.0%	79.2%	0.0%	21.00%	0.00900	8.000	4.96	4.96	0.36	8.57	1.56	0.00	0.00	23.61	100%
Harder 792S	9.20	76.20%	0.0%	76.2%	0.0%	24.00%	0.00078	8.000	7.01	7.01	0.04	1.05	0.19	0.00	0.02	29.21	65%
Reducer 8034S	7.50	99.40%	0.0%	99.4%	0.0%	0.60%	0.00445	8.000	7.46	7.46	0.27	6.37	1.16	0.00	0.00	1242.50	65%
ABS Cement	7.09	100.00%	0.0%	100.0%	0.0%	0.00%	0.00136	8.000	7.09	7.09	0.08	1.85	0.34	0.00	0.00	NA	100%
ABS Cleaner	6.61	100.00%	5.0%	95.0%	0.0%	0.00%	0.00039	8.000	6.28	6.28	0.02	0.47	0.09	0.00	0.00	NA	100%
Adhesive 8011	8.35	0.60%	0.0%	0.6%	0.0%	99.00%	0.03110	8.000	0.05	0.05	0.01	0.30	0.05	0.00	0.00	0.05	100%
White Caulk	7.25	7.00%	0.0%	7.0%	0.0%	100.00%	0.30000	8.000	0.51	0.51	1.22	29.23	5.33	0.00	0.00	0.51	100%
S-W Latex Paint	9.00	85.00%	0.0%	85.0%	0.0%	15.00%	0.00002	8.000	7.65	7.65	0.00	0.03	0.01	0.00	0.00	51.00	100%
Aliphatic Resin Adhesive	9.49	0.00%	0.0%	0.0%	0.0%	100.00%	0.08198	8.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
SCS1202 Silicone	8.92	5.00%	0.0%	5.0%	0.0%	95.00%	0.00468	8.000	0.45	0.45	0.02	0.40	0.07	0.00	0.00	0.47	100%
Centari Paint	10.95	60.00%	0.0%	60.0%	0.0%	40.00%	0.00250	8.000	6.57	6.57	0.13	3.15	0.58	0.03	0.13	16.43	65%
Chassis Black Paint	8.47	35.50%	0.0%	35.5%	0.0%	50.00%	0.23300	8.000	3.01	3.01	5.60	134.51	24.55	0.00	0.00	6.01	100%
Chroma Clear 760S	9.02	67.10%	0.0%	67.1%	0.0%	33.00%	0.00078	8.000	6.05	6.05	0.04	0.91	0.17	0.01	0.03	18.34	65%
Denatured Alcohol	6.70	100.00%	0.0%	100.0%	0.0%	0.00%	0.00078	8.000	6.70	6.70	0.04	1.00	0.18	0.00	0.00	NA	100%
Lacquer Thinner	7.19	100.00%	0.0%	100.0%	0.0%	0.00%	0.02500	8.000	7.19	7.19	1.44	34.51	6.30	0.00	0.00	NA	100%
S-W G2C139	7.40	75.00%	0.0%	75.0%	0.0%	25.00%	0.00117	8.000	5.55	5.55	0.05	1.25	0.23	0.00	0.00	22.20	100%
Sealer	7.40	81.37%	0.0%	81.4%	0.0%	20.00%	0.00078	8.000	6.02	6.02	0.04	0.90	0.16	0.00	0.00	30.11	100%
Mineral Spirits	6.51	100.00%	0.0%	100.0%	0.0%	0.00%	0.00389	8.000	6.51	6.51	0.20	4.86	0.89	0.00	0.00	NA	100%
MEK	6.70	100.00%	0.0%	100.0%	0.0%	0.00%	0.00389	8.000	6.70	6.70	0.21	5.00	0.91	0.00	0.00	NA	100%
Par-sil-Silicone	8.76	0.00%	0.0%	0.0%	0.0%	100.00%	0.95000	8.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
RTV Sealant 732	8.76	5.00%	0.0%	5.0%	0.0%	95.00%	0.02345	8.000	0.44	0.44	0.08	1.97	0.36	0.00	0.00	0.46	100%
Elixir Silicone	12.87	0.00%	0.0%	0.0%	0.0%	100.00%	0.00117	8.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Spray n' Go Paint	6.09	86.10%	0.0%	86.1%	0.0%	14.00%	0.00818	8.000	5.24	5.24	0.34	8.24	1.50	0.02	0.08	37.45	65%
Spot/Panel Clear Coat	7.94	56.50%	0.0%	56.5%	0.0%	40.00%	0.00078	8.000	4.49	4.49	0.03	0.67	0.12	0.01	0.03	11.22	65%
Titeco Adhesive	6.10	68.00%	0.0%	68.0%	0.0%	34.00%	0.03111	8.000	4.15	4.15	1.03	24.78	4.52	0.17	0.74	12.20	65%

State Potential Emissions

Add worst case coating to all solvents

11.25 270.03 49.28 0.17 1.05

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hrs/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: Emissions Calculations
HAPs
From RV Assembly Area Located at Plant 1**

Company Name: Forest River, Inc.
Address City IN Zip: 201 West Elm Street and 66135 S.R.13, Millersburg, IN 46543
MSOP Renewal No. 039-26183-00471
Reviewer: Mehul Sura
Date: April 4, 2008

Material	Density (Lb/Gal)	Gal of Mat. (gal/unit)	Maximum (unit/hr)	Weight % Hexane	Weight % MIBK	Weight % Xylene	Weight % MEK	Weight % Toluene	Weight % Ethylbenzene	Weight % Methanol	Hexane Emissions (ton/yr)	MIBK Emissions (ton/yr)	Xylene Emissions (ton/yr)	MEK (ton/yr)	Toluene (tons/yr)	Ethylbenzene (tons/yr)	Methanol (tons/yr)
Adhesive 676	6.26	0.00900	8.000	40.0%	0.0%	0.00%	0.000%	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00
Harder 792S	9.20	0.00078	8.000	0%	0.0%	0.00%	0.000%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reducer 8034S	7.50	0.00445	8.000	0%	0.0%	0.00%	0.000%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ABS Cement	7.09	0.00136	8.000	0%	0.0%	0.00%	75.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00
ABS Cleaner	6.61	0.00039	8.000	0%	0.0%	0.00%	95.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00
Adhesive 8011	8.35	0.03110	8.000	0%	0.0%	0.00%	0.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
White Cauk	7.25	0.30000	8.000	0%	0.0%	0.00%	0.0%	7.00%	0.00	0.00	0.00	0.00	0.00	0.00	5.33	0.00	0.00
S-W Latex Paint	9.00	0.00002	8.000	0%	0.0%	16.00%	0.0%	3.00%	3.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00019	0.00
Aliphatic Resin Adhesive	9.49	0.08198	8.000	0%	0.0%	0.00%	0.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCS1202 Silicone	8.92	0.00468	8.000	0%	0.0%	0.00%	0.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Centari Paint	10.95	0.00250	8.000	0%	0.0%	20.00%	4.0%	11.00%	0.00	0.00	0.00	0.00	0.19	0.04	0.11	0.00	0.00
Chassis Black Paint	8.47	0.23300	8.000	0%	0.0%	0.00%	0.0%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chroma Clear 760S	9.02	0.00078	8.000	0%	0.0%	17.00%	28.0%	28.00%	0.00	0.00	0.00	0.00	0.04	0.07	0.07	0.00	0.00
Denatured Alcohol	6.70	0.00078	8.000	0%	0.0%	0.00%	0.0%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lacquer Thinner	7.19	0.02500	8.000	0%	10.0%	0.00%	10.0%	59.50%	0.00	9.90%	0.00	0.63	0.00	0.63	3.75	0.00	0.62
S-W G2C139	7.40	0.00117	8.000	0%	0.0%	0.00%	0.0%	40.00%	0.00	0.00%	0.00	0.00	0.00	0.00	0.12	0.00	0.00
Sealer	7.40	0.00078	8.000	0%	6.7%	13.62%	6.0%	30.70%	0.00	0.00%	0.00	0.01	0.03	0.01	0.06	0.00	0.00
Mineral Spirits	6.51	0.00389	8.000	0%	0.0%	0.00%	0.0%	0.00%	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEK	6.70	0.00389	8.000	0%	0.0%	0.00%	100.0%	0.00%	0.00	0.00%	0.00	0.00	0.00	0.91	0.00	0.00	0.00
Par-sil-Silicone	8.76	0.95000	8.000	0%	0.0%	0.00%	0.0%	0.00%	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTV Sealant 732	8.76	0.02345	8.000	0%	0.0%	0.00%	0.0%	0.00%	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elixir Silicone	12.87	0.00117	8.000	0%	0.0%	2.00%	0.0%	0.00%	0.00	0.00%	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Spray n' Go Paint	6.09	0.00818	8.000	0%	0.0%	10.00%	10.0%	5.00%	3.00%	0.00%	0.00	0.00	0.17	0.17	0.09	0.05	0.00
Spot/Panel Clear Coat	7.94	0.00078	8.000	0%	0.0%	0.00%	0.000%	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Titeco Adhesive	6.10	0.03111	8.000	28%	0.0%	0.00%	0.000%	0.00	0.00	0.00	1.86	0.00	0.00	0.00	0.00	0.00	0.00
SUM											2.65	0.64	0.45	2.18	9.53	0.05	0.62

Individual HAP (Toluene): 9.53
Combined Total HAPs: 16.12

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal Mat. (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
Woodworking Operations at the Source
Company Name: Forest River, Inc.
Address City IN Zip: 201 West Elm Street and 66135 S.R.13, Millersburg, IN 46543
MSOP Renewal No. 039-26183-00471
Reviewer: Mehul Sura
Date: April 4, 2008
Date: 20-Nov-02

Cabinet Shops at Plant 1 and Plant 2

Facility	PM/PM10					
	Air Flow Rate in baghouse (acf/m)	Grain Loading for baghouse (grains/acf)	Control Efficiency (%)	PTE Before Control (lb/hr)	PTE Before Control (ton/yr)	PTE After Control (ton/yr)
One (1) cabinet woodworking shop located at Plant 1	3400	0.004	98.0%	5.8	25.5	0.511
One (1) cabinet woodworking shop located at Plant 2	3400	0.004	98.0%	5.8	25.5	0.511

Methodology

PTE Before Control (lbs/hr) = Airflowrate (gr/acf) * Grain Loading (grains/acf) * 60 (min/hr)* 1/7000 (lb/grains)
PTE Before Control (ton/yr) = PTE Before Control (lbs/hr) * 8760 (hrs/yr) * 1/2000 (ton/lbs)
PTE After Control (ton/yr) = PTE Before Control (lbs/hr) * (1-Baghouse Control Efficiency)
PM/PM10 Control Equipment is Baghouse.
All PM emission is assumed to be PM10

Milling Operations at Plant 3

	PM10	PM
Control Efficiency of Baghouse	98.39%	98.39%
Control Efficiency of Cyclone	50.00%	80.00%

Emission units and control device configuration is as follows:



PM10	Amount of PM10 Collected from Baghouse	PTE Before Control (Amount of PM10 going into Cyclone)	Amount of PM10 going into Baghouse	PTE After Control (Amount of PM10 leaving the Baghouse)
Emission Rate (lb/hr)	0.45	0.91	0.46	0.01
Emission Rate (tons/year)	1.97	4.01	2.00	0.03

PM	Amount of PM Collected from Baghouse	PTE Before Control (Amount of PM going into Cyclone)	Amount of PM going into Baghouse	PTE After Control (Amount of PM leaving the Baghouse)
Emission Rate (lb/hr)	0.45	2.29	0.46	0.01
Emission Rate (tons/year)	1.97	10.02	2.00	0.03

Methodology

For PM

Amount of PM10 going into Baghouse = Amount of PM10 Collected from Baghouse / PM10 Control Efficiency of Baghouse
PTE Before Control (Amount of PM10 going into Cyclone) = Amount of PM10 going into Baghouse / (1-PM10 Control efficiency of Cyclone)
PTE After Control (Amount of PM10 leaving the Baghouse) = Amount of PM10 going into Baghouse * (1-PM10 control efficiency of Baghouse)

For PM10

Amount of PM going into Baghouse = Amount of PM Collected from Baghouse / PM Control Efficiency of Baghouse
PTE Before Control (Amount of PM going into Cyclone) = Amount of PM going into Baghouse / (1-PM Control efficiency of Cyclone)
PTE After Control (Amount of PM leaving the Baghouse) = Amount of PM going into Baghouse * (1-PM control efficiency of Baghouse)

Appendix A: Emission Calculations
VOC from RV Roof and Wall Lamination Press located at Plant 1

Company Name: Forest River, Inc.
Address City IN Zip: 201 West Elm Street, Millersburg, IN 46543
MSOP Renewal No. 039-26183-00471
Reviewer: Mehul Sura
Date: April 4, 2008

Reaction:

15 % MDI + 85% PMDI + Water ----> 100% PMDI + Water + heat

Assume all MDI is lost without reaction:

Evaporation Rate (lb/hr) = 0.426

MDI emissions to the atmosphere in three minutes 0.0213 lb

*MDI lbs/gallon of Adhesive usage 0.0018 lb/gal

PTE

One Recreational Vehicle = 1.71 gallon of Adhesive
 8 RV/hr = 0.0241 lbs/hr
 0.1056 ton/yr

* All VOC emitted from this process is MDI

METHODOLOGY

MDI emission in three (3) minutes = 0.426 lb VOC/hr * 0.05 hr
 lbs VOC/gallon of Adhesive Usage = MDI emission in 3 minutes * 1/120 lbs spilled * 9.93 lbs spilled/ gallon
 VOC lbs/hr for 8 RV = 1.71 gallon of Adhesive * 8 RV* lbs VOC/gallon of Adhesive usage

**Appendix A: Emission Calculations
Welding Operation**

Company Name: Forest River, Inc.
Address City IN Zip: 201 West Elm Street, Millersburg, IN 46543
MSOP Renewal No. 039-26183-00471
Reviewer: Mehul Sura
Date: April 4, 2008

Process	Number of Stations	Max. Electrode Consumption (lbs/hr)	*EMISSION FACTORS (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPs (lbs/hr)
			PM/PM10	Mn	Ni	Cr	PM/PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG) Welding ER70S	2	0.18	0.0052	0.00318	0.00001	0.00001	1.87E-03	1.14E-03	3.60E-06	3.60E-06	1.15E-03

PM/PM10 (tons/yr) = 0.0082
HAPs (tons/yr) = 0.0050

*Emission Factors are from AP-42, Chapter 12.19, SCC 3-09-050

Methodology

Welding Emissions (lbs/hr) = (No. of Stations) * (Max. Electrode Consumption (lbs/hr) * Emission Factor (lbs pollutant/lb electrode))
 Welding Emissions (tons/yr) = Welding Emissions (lbs/hr) * 8760 (hrs/yr) / 2000 (lbs/ton)

**Appendix A: Emission Calculations
Summary Emissions for Forest River, Inc.**

Company Name: Forest River, Inc.
Address City IN Zip: 201 West Elm Street and 66135 S.R.13, Millersburg, IN 46543
MSOP Renewal No. 039-26183-00471
Reviewer: Mehul Sura
Date: April 4, 2008

SUMMARY OF UNCONTROLLED EMISSIONS IN TONS PER YEAR

SOURCE	POLLUTANT							
	PM	PM ₁₀	VOC	NOX	SO ₂	CO	Single HAP	Combined HAP
Space Heaters	0.59	0.59	0.43	7.8	0.05	6.55	0.14	0.15
Woodworking Shops - Plant 1 and Plant 2	51.1	51.1	-	-	-	-	-	-
RV Assembly Area - Plant 1	1.05	1.05	49.28	-	-	-	9.53	16.12
RV Roof and Wall Lamination - Plant 1	-	-	0.106	-	-	-	0.106	-
Milling Operations - Plant 3	10.02	4.01	-	-	-	-	-	-
Hot melt lamination - Plant 3	-	-	negligible	-	-	-	-	negligible
Bead applicators - Plant 3	-	-	negligible	-	-	-	-	negligible
Welding Process - Plant 1	0.0082	0.0082	-	-	-	-	-	0.005
	62.7	56.7	49.8	7.8	0.05	6.5	9.77	16.27

SUMMARY OF CONTROLLED EMISSIONS IN TONS PER YEAR

SOURCE	PM	PM ₁₀	VOC	NOX	SO ₂	CO	Single HAP	Combined HAP
Space Heaters	0.59	0.59	0.43	7.80	0.05	6.55	0.14	0.15
Woodworking Shops - Plant 1 and Plant 2	1.0	1.0	-	-	-	-	-	-
RV Assembly Area - Plant 1	1.05	1.05	49.28	-	-	-	9.53	16.12
RV Roof and Wall Lamination - Plant 1	-	-	0.106	-	-	-	0.106	-
Milling Operations - Plant 3	0.03	0.03	-	-	-	-	-	-
Hot melt lamination - Plant 3	-	-	negligible	-	-	-	-	negligible
Bead applicators - Plant 3	-	-	negligible	-	-	-	-	negligible
Welding Process - Plant 1	0.0082	0.0082	-	-	-	-	-	0.0050
	2.7	2.7	49.8	7.8	0.05	6.5	9.77	16.27