



# 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](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: April 1, 2008

RE: Forest River / 087-25098-00052

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., Cherokee Division  
402 Lehman Avenue  
Topeka, Indiana 46571**

(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.: M087-25098-00052	
Original signed by:	Issuance Date: April 1, 2008
Chrystal Wagner, Section Chief Permits Branch Office of Air Quality	Expiration Date: April 1, 2018

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## SECTION A SOURCE SUMMARY

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

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

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The Permittee owns and operates a stationary recreational vehicle (RV) manufacturing source.

Source Address:	402 Lehman Avenue, Topeka, Indiana 46571
Mailing Address:	P.O. Box 3030, Elkhart, Indiana 46515
General Source Phone Number:	219-534-6913
SIC Code:	3792
County Location:	LaGrange
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) RV assembly area, identified as RV-1, processing finished RVs, with a maximum throughput of 36 vehicles per day in a batch operation and consisting of the following processes:
- (1) Metal department with a maximum usage rate of 2.01 gallons of coating material per hour;
  - (2) Exterior caulk facility with a maximum usage rate of 2.06 gallons of caulk per hour;
  - (3) Floors and plumbing facility with a maximum usage rate of 0.64 gallons of adhesives, caulks, and cleaners per hour;
  - (4) Cleaning process with a maximum usage rate of 0.66 gallons of cleaning solvents per hour; and
  - (5) Final assembly area with a maximum usage rate of 0.56 gallons of touch-up spray paint, cleaners, and adhesives per hour.
- (b) One (1) RV assembly area, identified as RV-2, processing finished RVs, with a maximum throughput rate of 19 vehicles per day in a batch operation and consisting of the following processes:
- (1) Metal department with a maximum usage rate of 1.06 gallons of coating material per hour;
  - (2) Exterior caulk facility with a maximum usage rate of 1.08 gallons of caulk per hour;

- (3) Floors and plumbing facility with a maximum usage rate of 0.34 gallons of adhesives, caulks, and cleaners per hour;
  - (4) Cleaning process with a maximum usage rate of 0.35 gallons of cleaning solvent per hour; and
  - (5) Final assembly area with a maximum usage rate of 0.30 gallons of touch-up spray paint, cleaners, and adhesives per hour.
- (c) Two (2) woodworking processes, each processing pre-finished lumber at a maximum rate of 600 pounds per hour, with particulate emissions controlled by a cyclone and baghouse in series; and
- (d) Six (6) natural gas fired space heaters, identified as A1 through A6, with a total combined heat input capacity of 3.60 MMBtu per hour, each exhausting to its own stack, identified as Stacks A1 through A6.

## **SECTION B GENERAL CONDITIONS**

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

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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, M087-25098-00052, 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]**

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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**

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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**

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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**

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

### **B.7 Duty to Provide Information**

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- (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

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- (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)]

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- (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]

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- (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]**

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- (a) All terms and conditions of permits established prior to M087-25098-00052 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)]**

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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]**

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- (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]**

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(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**

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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]

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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]**

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(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]**

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- (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]**

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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]

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

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

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

All required notifications shall be submitted to:

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

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

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

- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

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

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

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

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

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

### **Compliance Requirements [326 IAC 2-1.1-11]**

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

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

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

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

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

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

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

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

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

## **Corrective Actions and Response Steps**

### **C.13 Response to Excursions or Exceedances**

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- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or

- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

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

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- (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]**

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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) One (1) RV assembly area, identified as RV-1, processing finished RVs, with a maximum throughput of 36 vehicles per day in a batch operation and consisting of the following processes:
  - (1) Metal department with a maximum usage rate of 2.01 gallons of coating material per hour;
  - (2) Exterior caulk facility with a maximum usage rate of 2.06 gallons of caulk per hour;
  - (3) Floors and plumbing facility with a maximum usage rate of 0.64 gallons of adhesives, caulks, and cleaners per hour;
  - (4) Cleaning process with a maximum usage rate of 0.66 gallons of cleaning solvents per hour; and
  - (5) Final assembly area with a maximum usage rate of 0.56 gallons of touch-up spray paint, cleaners, and adhesives per hour.
  
- (b) One (1) RV assembly area, identified as RV-2, processing finished RVs, with a maximum throughput rate of 19 vehicles per day in a batch operation and consisting of the following processes:
  - (1) Metal department with a maximum usage rate of 1.06 gallons of coating material per hour;
  - (2) Exterior caulk facility with a maximum usage rate of 1.08 gallons of caulk per hour;
  - (3) Floors and plumbing facility with a maximum usage rate of 0.34 gallons of adhesives, caulks, and cleaners per hour;
  - (4) Cleaning process with a maximum usage rate of 0.35 gallons of cleaning solvent per hour; and
  - (5) Final assembly area with a maximum usage rate of 0.30 gallons of touch-up spray paint, cleaners, and adhesives per hour.

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

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

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

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to the applicator at the surface coating stations shall be limited to 3.5 pounds of VOCs per gallon of coating less water.
  
- (b) 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.

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

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

### Compliance Determination Requirements

#### D.1.3 Miscellaneous Metal Coating

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Compliance with the VOC content limit in condition D.1.1 of this permit 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.

IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

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

#### D.1.4 Record Keeping Requirement

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- (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 daily and shall be complete and sufficient to establish compliance with the VOC limits established in Condition D.1.1.
- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) of "as applied" coatings as necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The volume weighted VOC content of the coating used for each 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:

- (a) Two (2) woodworking processes, each processing pre-finished lumber at a maximum rate of 600 pounds per hour, with particulate emissions controlled by a cyclone and baghouse in series.

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

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

#### D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate from the two (2) woodworking operations, each operating at 600 pounds per hour, shall each be limited to 1.83 pounds per hour, determined by the following:

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

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

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

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

### Compliance Monitoring Requirements

#### D.2.3 Particulate Control

The cyclone and baghouse for each of the two (2) woodworking processes, operating in series, must be in operation at all times the woodworking processes are in operation, in order to comply with Condition D.2.1.

#### D.2.4 Visible Emission Notations

- (a) Visible emission notations of the exhaust from each woodworking operation shall be performed once per day during normal daylight operating hours when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take

response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### D.2.5 Broken or Failed Bag Detection

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- (a) For single compartment baghouses 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. The emissions unit shall be shut down no later than the completion of the processing of the material in the 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).
- (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 the 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).
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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.

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

#### D.2.6 Record Keeping Requirement

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- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of visible emission notations of each woodworking operations exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (i.e., the process did not operate that day or venting indoors).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

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

<b>Company Name:</b>	Forest River, Inc., Cherokee Division
<b>Address:</b>	402 Lehman Avenue
<b>City:</b>	Topeka, Indiana 46571
<b>Phone #:</b>	219-534-6913
<b>MSOP #:</b>	M087-25098-00052

I hereby certify that Forest River, Inc., Cherokee Division is  still in operation.  
 no longer in operation.  
I hereby certify that Forest River, Inc., Cherokee Division is  in compliance with the requirements of MSOP M087-25098-00052.  
 not in compliance with the requirements of MSOP M087-25098-00052.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

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.

<b>Noncompliance:</b>

### 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:

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**MINOR SOURCE OPERATING PERMIT (MSOP)  
CERTIFICATION**

Source Name: Forest River, Inc., Cherokee Division  
Source Address: 402 Lehman Avenue, Topeka, Indiana 46571  
Mailing Address: P.O. Box 3030, Elkhart, Indiana 46515  
MSOP No.: M087-25098-00052

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

Please check what document is being certified:

- Annual Compliance Notification
- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

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

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

**Source Background and Description**

<b>Source Name:</b>	<b>Forest River, Inc., Cherokee Division</b>
<b>Source Location:</b>	<b>402 Lehman Avenue, Topeka, Indiana 46571</b>
<b>County:</b>	<b>LaGrange</b>
<b>SIC Code:</b>	<b>3792</b>
<b>Permit Renewal No.:</b>	<b>M087-25098-00052</b>
<b>Permit Reviewer:</b>	<b>Stephanie Wilkerson</b>

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Forest River, Inc., Cherokee Division relating to the operation of a stationary recreational vehicle (RV) manufacturing source.

**History**

On August 2, 2007, Forest River, Inc, Cherokee Division submitted an application to the OAQ requesting to renew its operating permit. Forest River, Inc, Cherokee Division was issued its original MSOP, M087-15238-00052, on November 20, 2002.

**Permitted Emission Units and Pollution Control Equipment**

- (a) One (1) RV assembly area, identified as RV-1, processing finished RVs, with a maximum throughput of 36 vehicles per day in a batch operation and consisting of the following processes:
  - (1) Metal department with a maximum usage rate of 2.01 gallons of coating material per hour;
  - (2) Exterior caulk facility with a maximum usage rate of 2.06 gallons of caulk per hour;
  - (3) Floors and plumbing facility with a maximum usage rate of 0.64 gallons of adhesives, caulks, and cleaners per hour;
  - (4) Cleaning process with a maximum usage rate of 0.66 gallons of cleaning solvents per hour; and
  - (5) Final assembly area with a maximum usage rate of 0.56 gallons of touch-up spray paint, cleaners, and adhesives per hour.
  
- (b) One (1) RV assembly area, identified as RV-2, processing finished RVs, with a maximum throughput rate of 19 vehicles per day in a batch operation and consisting of the following processes:
  - (1) Metal department with a maximum usage rate of 1.06 gallons of coating material per hour;
  - (2) Exterior caulk facility with a maximum usage rate of 1.08 gallons of caulk per hour;

- (3) Floors and plumbing facility with a maximum usage rate of 0.34 gallons of adhesives, caulks, and cleaners per hour;
  - (4) Cleaning process with a maximum usage rate of 0.35 gallons of cleaning solvent per hour; and
  - (5) Final assembly area with a maximum usage rate of 0.30 gallons of touch-up spray paint, cleaners, and adhesives per hour.
- (c) Two (2) woodworking processes, each processing pre-finished lumber at a maximum rate of 600 pounds per hour, with particulate emissions controlled by a cyclone and baghouse in series; and
- (d) Six (6) natural gas fired space heaters, identified as A1 through A6, with a total combined heat input capacity of 3.60 MMBtu per hour, each exhausting to its own stack, identified as Stacks A1 through A6.

### Existing Approvals

Since the issuance of the original MSOP M087-15238-00052 on November 20, 2002, the source has constructed or has been operating under the following approvals as well:

- (a) Significant Permit Modification No. 087-24028-00052, issued on April 26, 2007.

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

There are no enforcement actions pending.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
A1	Space Heater	15	0.5	600	300
A2	Space Heater	15	0.5	600	300
A3	Space Heater	15	0.5	600	300
A4	Space Heater	15	0.5	600	300
A5	Space Heater	15	0.5	600	300
A6	Space Heater	15	0.5	600	300

## Emission Calculations

See Appendix A of this document for detailed emission calculations.

## County Attainment Status

The source is located in LaGrange County.

Pollutant	Status
PM <sub>10</sub>	Attainment
PM <sub>2.5</sub>	Attainment
SO <sub>2</sub>	Attainment
NOx	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) LaGrange County has been classified as attainment for PM<sub>2.5</sub>. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM<sub>2.5</sub> emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM<sub>2.5</sub> emissions, it has directed states to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions. See the State Rule Applicability – Entire Source section.
- (b) 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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. LaGrange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) LaGrange County has been classified as attainment in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) 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.
- (e) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD applicability.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	60.01
PM-10	60.11
SO <sub>2</sub>	0.00
VOC	99.10
CO	1.30
NO <sub>x</sub>	1.60

HAPs	tons/year
Toluene	3.30
Hexane	4.73
Ethylbenzene	0.11
Benzene	0.35
<b>Total</b>	<b>8.50</b>

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year. The source is not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP.
- (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.

#### Fugitive Emissions

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.

#### Actual Emissions

No previous emission data has been received from the source.

#### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this MSOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
RV-1	34.00	34.00	-	64.80	-	-	5.57
RV-2	17.60	17.60	-	34.20	-	-	2.93
Woodworking	0.14	0.14	-	-	-	-	-
Natural Gas-Fired Heaters	0.00	0.10	0.00	0.10	1.30	1.60	Negligible
<b>Total Emissions</b>	<b>51.74</b>	<b>51.84</b>	<b>0.00</b>	<b>99.10</b>	<b>1.30</b>	<b>1.60</b>	<b>8.50</b>

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
  - (1) This source is not subject to 40 CFR Part 60, Subpart EE (Standards for Performance of Surface Coating of Metal Furniture), because the source does not apply surface coatings to metal furniture. Therefore, these requirements are not included in this permit.
  - (2) This source is not subject to 40 CFR Part 60, Subpart MM (Standards for Performance of Automobile and Light Duty Truck Surface Coating Operations), because the source does not apply surface coatings to automobiles or light trucks. Therefore, these requirements are not included in this permit.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20, and 40 CFR Part 63) included in this permit renewal.
  - (1) This source is not a Title V (Part 70) major source of hazardous air pollutants (HAPs); therefore, it is not subject to the requirements of 326 IAC 14, 326 IAC 20, or 40 CFR Part 63.

### **State Rule Applicability - Entire Source**

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

This source does not have the potential to emit more than 250 tons of any criteria pollutant per year. Therefore, 326 IAC 2-2 does not apply to this source.

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

The operation of this stationary recreational vehicle (RV) manufacturing facility will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

#### 326 IAC 2-6 (Emission Reporting)

This source is not required to have a Part 70 permit and it is not located in Lake, Porter, or LaPorte Counties. Therefore, 326 IAC 2-6 does not apply.

#### 326 IAC 5-1 (Opacity Limitations)

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

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

### State Rule Applicability – Individual Facilities

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

- (a) Pursuant to 326 IAC 6-3-2, the particulate from the two (2) woodworking operations, operating at 600 pounds per hour each, shall each be limited to 1.83 pounds per hour, determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (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 is able to comply with this limit when using the cyclone and baghouse in series for each of these manufacturing processes. Therefore, the source must operate these control devices at all times the woodworking operations are in operation.

- (b) The coating operations in the RV assembly areas identified as RV-1 and RV-2 are aerosol coating, flow coating, and roll coating. The application of coating products by aerosol coating, flow coating, and roll coating are exempt from the requirements of 326 IAC 6-3, pursuant to 326 IAC 6-3-1(a)(12), 326 IAC 6-3-1(a)(7), and 326 IAC 6-3-1(a)(6), respectively. Therefore, the requirements of 326 IAC 6-3 are not applicable to the coating operations in the RV assembly areas identified as RV-1 and RV-2.

#### 326 IAC 8-1-6 (BACT)

The surface coating processes coating metal parts at the source are regulated by the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating). Pursuant to 326 IAC 8-1-6(3)(A), the requirements of 326 IAC 8-1-6 (BACT) do not apply to these facilities. No other facilities at this source have a potential to emit VOCs greater than twenty-five (25) tons per year, rendering 326 IAC 8-1-6 inapplicable.

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

The source applies paints and other coatings to metal substrates as part of the production process. Therefore, pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to the applicator at the surface coating stations coating metal parts shall be limited to 3.5 pounds of VOCs per gallon of coating less water.

- (a) Compliance with the VOC content limit in condition D.1.1 of this permit 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.

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.

IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

### Compliance Monitoring Requirements

The compliance monitoring requirements applicable to this source are as follows:

(a) Visible Emission Notations

- (1) Visible emission notations of the woodworking operations exhaust shall be performed once per day during normal daylight operating hours when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (5) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) Broken or Failed Bag Detection

- (1) For single compartment baghouses 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. The emissions unit shall be shut down no later than the completion of the processing of the material in the 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).
- (2) 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 the 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).
- (3) 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.

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.

### **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 August 2, 2007. Additional information was received on August 23, 2007 and October 10, 2007.

### **Conclusion**

The operation of this stationary recreational vehicle (RV) manufacturing source shall be subject to the conditions of the attached MSOP Renewal No. 087-25098-00052.

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

**Company Name:** Forest River, Inc., Cherokee Division  
**Address City IN Zip:** 402 Lehman Avenue, Topeka, Indiana 46571  
**Permit:** M087-25098-00052  
**Pit ID:** 087-00052  
**Reviewer:** Stephanie Wilkerson  
**Date:** August 22, 2007

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

3.6

31.5

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.0	0.1	0.0	1.6	0.1	1.3

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 2 for HAPs emissions calculations.

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

**Company Name:** Forest River, Inc., Cherokee Division  
**Address City IN Zip:** 402 Lehman Avenue, Topeka, Indiana 46571  
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	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.311E-05	1.892E-05	1.183E-03	2.838E-02	5.361E-05

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.884E-06	1.734E-05	2.208E-05	5.992E-06	3.311E-05

Methodology is the same as page 1.

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: Emission Calculations  
VOC Emissions  
From RV Assembly Area (RV-1)**

**Company Name:** Forest River, Inc., Cherokee Division  
**Address:** 402 Lehman Avenue, Topeka, Indiana 46571  
**Permit:** M087-25098-00052  
**Plt ID:** 087-00052  
**Reviewer:** Stephanie Wilkerson  
**Date:** August 24, 2007

**RV-1 Assembly Process**

Unit ID	Material	Density (lb/gal)	Max. Usage Rate (gal/unit)	Max. Throughput Rate (unit/hour)	Weight % VOC	Volume % Water	Pounds VOC Per Gallon of Coating Less Water	PTE of VOC (lbs/hour)	PTE of VOC (tons/year)	Weight % Solids	Transfer Efficiency (%)	PTE of PM/PM10 (tons/year)
<b>Metal Department</b>												
(substrate - fiberglass)	Clear Antiwick Adhesive	8.34	0.0253	1.50	3.00%	0%	0.25	0.01	0.04	97%	100%	0.00
(substrate - wood)	Econobond 29	5.75	0.1515	1.50	55.0%	0%	3.16	0.72	3.15	45%	55%	1.16
(substrate - metal)	DAP 55276 Black Spray Paint	5.50	0.0284	1.50	82.0%	0%	4.51	0.19	0.84	18%	55%	0.08
(substrate - metal)	Caulk - Dicor 502 Tube	9.75	0.3056	1.50	33.6%	0%	3.28	1.50	6.58	66%	100%	0.00
(substrate - metal)	Caulk - Dicor 502 Pail	9.75	0.1692	1.50	33.6%	0%	3.28	0.83	3.64	66%	100%	0.00
(substrate - metal)	Royal Adhesive	9.34	0.6629	1.50	3.00%	0%	0.28	0.28	1.22	97%	100%	0.00
<b>Exterior Caulk Facility</b>									<b>15.5</b>	<b>1.24</b>		
(substrate - metal)	Geocel 2300 MH/RV	7.99	0.12	1.50	33.0%	0%	2.64	0.49	2.1	67%	55%	1.96
(substrate - metal)	Geocel 2350 MH/RV	8.24	1.17	1.50	33.0%	0%	2.72	4.77	20.9	67%	55%	19.1
(substrate - metal)	Geocel All-in-One Clear Caulk	12.4	0.08	1.50	0.01%	0%	0.001	9.83E-05	4.31E-04	100%	100%	0.00
<b>Floors &amp; Plumbing</b>									<b>23.1</b>	<b>21.06</b>		
(substrate - wood)	Beats the Nail Caulk	10.9	0.330	1.50	25.5%	0%	2.78	1.37	6.01	75%	100%	0.00
NA	Cyclo Max Clean	8.34	0.005	1.50	10.00%	0%	0.83	0.01	0.03	90%	55%	0.12
(substrate - plastic)	Red Devil Holding Tank Caulk	11.7	0.038	1.50	5.00%	0%	0.58	0.03	0.15	95%	100%	0.00
(substrate - wood)	Sheet Floor Adhesive	9.42	0.020	1.50	0.03%	0%	0.00	0.00	0.00	100%	55%	0.56
(substrate - plastic)	ABS Black Cement	7.26	0.024	1.50	69.0%	0%	5.01	0.18	0.77	31%	100%	0.00
(substrate - plastic)	ABS Yellow Cement	7.09	0.010	1.50	70.5%	0%	5.00	0.07	0.32	30%	100%	0.00
(substrate - plastic)	CSA Pipe Dope Reactor Seal	11.8	0.001	1.50	17.0%	0%	2.01	0.0030	0.013	83%	100%	0.00
(substrate - plastic)	Yellow Label Cleaner	6.59	0.0025	1.50	0.76%	0%	0.05	0.0002	0.001	99%	55%	0.05
<b>Cleaning Process</b>									<b>7.29</b>	<b>0.73</b>		
NA	CNV 12022 Foam Spray Cleaner	6.58	0.0057	1.50	15%	0%	0.99	0.0084	0.04	85%	55%	0.09
NA	Cyclo Brake Cleaner	6.46	0.1420	1.50	70%	0%	4.53	0.9646	4.22	30%	55%	0.81
NA	Mineral Spirits	6.43	0.2000	1.50	100%	0%	6.43	1.9290	8.45	0%	55%	0.00
NA	Iso-Propyl Alcohol	6.60	0.0253	1.50	100%	0%	6.60	0.2505	1.10	0%	55%	0.00
NA	Denatured Alcohol	6.60	0.0694	1.50	100%	0%	6.60	0.6871	3.01	0%	55%	0.00
<b>Assembly Final</b>									<b>16.8</b>	<b>0.91</b>		
(substrate - wood)	Web 76 Spray Glue	5.73	0.0142	1.50	65%	0%	3.72	0.0793	0.35	35%	55%	0.08
(substrate - metal)	CNV 12021 Black Foam Spray	8.42	0.0227	1.50	12%	0%	1.01	0.0344	0.15	88%	55%	0.50
(substrate - metal)	Cyclo C-33 Spray	5.25	0.0189	1.50	92%	0%	4.83	0.1369	0.60	8.0%	55%	0.02
NA	Crazy Clean	8.34	0.0038	1.50	10%	0%	0.83	0.0048	0.02	90%	55%	0.08
NA	Sprayway Glass Cleaner	7.99	0.0051	1.50	15%	0%	1.20	0.0092	0.04	85%	55%	0.10
(substrate - wood)	Black Latex Paint	10.6	0.3030	1.50	3%	0%	0.32	0.1445	0.63	97%	55%	9.21
(substrate - plastic)	3 M Primer	6.83	0.0088	1.50	92%	0%	6.28	0.0829	0.36	8.0%	55%	0.01
									<b>2.16</b>	<b>10.02</b>		

**Total (tons/year) = 64.8 34.0**

**METHODOLOGY**

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

PTE of VOC (lbs/hour) = Density (lb/gal) \* Max. Usage Rate (gal/unit) \* Max. Throughput Rate (units/hour) \* Weight % VOC

PTE of VOC (tons/year) = Density (lb/gal) \* Max. Usage Rate (gal/unit) \* Max. Throughput Rate (units/hour) \* Weight % VOC \* 8760 hours/year \* 1 ton/2000 lbs

PTE of PM/PM10 (tons/yr) = Density (lb/gal) \* Max.Usage Rate (gal/unit) \* Max.Throughput Rate (unit/hour) \* Weight % Solids \* (1-Transfer Efficiency %) \* 8760 hrs/yr \* 1 ton/2000 lbs

**Appendix A: Emission Calculations  
HAP Emissions  
From RV Assembly Area (RV-1)**

**Company Name:** Forest River, Inc., Cherokee Division  
**Address:** 402 Lehman Avenue, Topeka, Indiana 46571  
**Permit:** M087-25098-00052  
**Plt ID:** 087-00052  
**Reviewer:** Stephanie Wilkerson  
**Date:** August 24, 2007

Unit ID	Material	Density (lb/gal)	Max. Usage Rate (gal/unit)	Max. Throughput Rate (unit/hour)	Weight % Toluene	Weight % Hexane	Weight % Ethylbenzene	Weight % Xylene	PTE of Toluene (tons/year)	PTE of Hexane (tons/year)	PTE of Ethylbenzene (tons/year)	PTE of Xylene (tons/year)
<b>Metal Department</b>												
(substrate - wood)	Econobond 29	5.75	0.1515	1.50		18%				1.002		
(substrate - metal)	DAP 55276 Black Spray Paint	5.50	0.0284	1.50	5.0%		5.0%	15%	0.051		0.051	0.154
									<b>0.051</b>	<b>1.002</b>	<b>0.051</b>	<b>0.154</b>
<b>Floors &amp; Plumbing</b>												
(substrate - wood)	Beats the Nail Caulk	10.9	0.330	1.50		7.5%				1.768		
									<b>0.000</b>	<b>1.768</b>	<b>0.000</b>	<b>0.000</b>
<b>Cleaning Process</b>												
NA	Cyclo Brake Cleaner	6.46	0.1420	1.50	35%				2.109			
									<b>2.109</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<b>Assembly Final</b>												
(substrate - wood)	Web 76 Spray Glue	5.73	0.0142	1.50		25%				0.134		
(substrate - metal)	Cyclo C-33 Spray	5.25	0.0189	1.50		30%				0.196		
(substrate - plastic)	3 M Primer	6.83	0.0088	1.50	0.50%		5.0%	20.0%	0.002		0.020	0.079
									<b>0.002</b>	<b>0.329</b>	<b>0.020</b>	<b>0.079</b>

Total Single HAP (tons/year) = 2.16      3.10      0.07      0.23  
Combination of HAPs (tons/year) = 5.57

**METHODOLOGY**

PTE of HAP (tons/year) = Density (lb/gal) \* Max. Usage Rate (gal/unit) \* Max. Throughput Rate (units/hour) \* Weight % HAP \* 8760 hours/year \* 1 ton/2000 lbs

**Appendix A: Emission Calculations  
VOC Emissions  
From RV Assembly Area (RV-2)**

**Company Name:** Forest River, Inc., Cherokee Division  
**Address:** 402 Lehman Avenue, Topeka, Indiana 46571  
**Permit:** M087-25098-00052  
**Plt ID:** 087-00052  
**Reviewer:** Stephanie Wilkerson  
**Date:** August 24, 2007

Unit ID	Material	Density (lb/gal)	Max. Usage Rate (gal/unit)	Max. Throughput Rate (unit/hour)	Weight % VOC	Volume % Water	Pounds VOC Per Gallon of Coating Less Water	PTE of VOC (lbs/hour)	PTE of VOC (tons/year)	Weight % Solids	Transfer Efficiency (%)	PTE of PM/PM10 (tons/year)
<b>Metal Department</b>												
(substrate - fiberglass)	Clear Antiwick Adhesive	8.34	0.0253	0.79	3.00%	0%	0.25	0.01	0.02	97%	100%	0.00
(substrate - wood)	Econobond 29	5.75	0.1515	0.79	55.0%	0%	3.16	0.38	1.66	45%	55%	0.61
(substrate - metal)	DAP 55276 Black Spray Paint	5.50	0.0284	0.79	82.0%	0%	4.51	0.10	0.44	18%	55%	0.04
(substrate - metal)	Caulk - Dicor 502 Tube	9.75	0.3056	0.79	33.6%	0%	3.28	0.79	3.47	66%	100%	0.00
(substrate - metal)	Caulk - Dicor 502 Pail	9.75	0.1692	0.79	33.6%	0%	3.28	0.44	1.92	66%	100%	0.00
(substrate - metal)	Royal Adhesive	9.34	0.6629	0.79	3.00%	0%	0.28	0.15	0.64	97%	100%	0.00
									<b>8.16</b>			<b>0.65</b>
<b>Exterior Caulk Facility</b>												
(substrate - metal)	Geocel 2300 MH/RV	7.99	0.12	0.79	33.0%	0%	2.64	0.26	1.1	67%	55%	1.03
(substrate - metal)	Geocel 2350 MH/RV	8.24	1.17	0.79	33.0%	0%	2.72	2.52	11.0	67%	55%	10.07
(substrate - metal)	Geocel All-in-One Clear Caulk	12.4	0.08	0.79	0.01%	0%	0.001	5.18E-05	2.27E-04	100%	100%	0.00
									<b>12.2</b>			<b>11.11</b>
<b>Floors &amp; Plumbing</b>												
(substrate - wood)	Beats the Nail Caulk	10.9	0.330	0.79	25.5%	0%	2.78	0.72	3.17	75%	100%	0.00
NA	Cyclo Max Clean	8.34	0.005	0.79	10.00%	0%	0.83	0.00	0.02	90%	55%	0.06
(substrate - plastic)	Red Devil Holding Tank Caulk	11.7	0.038	0.79	5.00%	0%	0.58	0.02	0.08	95%	100%	0.00
(substrate - wood)	Sheet Floor Adhesive	9.42	0.020	0.79	0.03%	0%	0.00	0.00	0.00	100%	100%	0.00
(substrate - plastic)	ABS Black Cement	7.26	0.024	0.79	69.0%	0%	5.01	0.09	0.41	31%	100%	0.00
(substrate - plastic)	ABS Yellow Cement	7.09	0.010	0.79	70.5%	0%	5.00	0.04	0.17	30%	100%	0.00
(substrate - plastic)	CSA Pipe Dope Reactor Seal	11.8	0.001	0.79	17.0%	0%	2.01	0.0016	0.007	83%	100%	0.00
(substrate - plastic)	Yellow Label Cleaner	6.59	0.0025	0.79	0.76%	0%	0.05	0.0001	0.000	99%	55%	0.03
									<b>3.84</b>			<b>0.09</b>
<b>Cleaning Process</b>												
NA	CNV 12022 Foam Spray Cleaner	6.58	0.0057	0.79	15%	0%	0.99	0.0045	0.02	85%	55%	0.05
NA	Cyclo Brake Cleaner	6.46	0.1420	0.79	70%	0%	4.53	0.5086	2.23	30%	55%	0.43
NA	Mineral Spirits	6.43	0.2000	0.79	100%	0%	6.43	1.0172	4.46	0%	55%	0.00
NA	Iso-Propyl Alcohol	6.60	0.0253	0.79	100%	0%	6.60	0.1321	0.58	0%	55%	0.00
NA	Denatured Alcohol	6.60	0.0694	0.79	100%	0%	6.60	0.3623	1.59	0%	55%	0.00
									<b>8.9</b>			<b>0.48</b>
<b>Assembly Final</b>												
(substrate - wood)	Web 76 Spray Glue	5.73	0.0142	0.79	65%	0%	3.72	0.0418	0.18	35%	55%	0.04
(substrate - metal)	CNV 12021 Black Foam Spray	8.42	0.0227	0.79	12%	0%	1.01	0.0181	0.08	88%	55%	0.26
(substrate - metal)	Cyclo C-33 Spray	5.25	0.0189	0.79	92%	0%	4.83	0.0722	0.32	8%	55%	0.01
NA	Crazy Clean	8.34	0.0038	0.79	10%	0%	0.83	0.0025	0.01	90%	55%	0.04
NA	Sprayway Glass Cleaner	7.99	0.0051	0.79	15%	0%	1.20	0.0048	0.02	85%	55%	0.05
(substrate - wood)	Black Latex Paint	10.6	0.3030	0.79	3%	0%	0.32	0.0762	0.33	97%	55%	4.86
(substrate - plastic)	3 M Primer	6.83	0.0088	0.79	92%	0%	6.28	0.0437	0.19	8%	55%	0.01
									<b>1.14</b>			<b>5.28</b>

Total (tons/year) =

34.2

17.6

**METHODOLOGY**

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

PTE of VOC (lbs/hour) = Density (lb/gal) \* Max. Usage Rate (gal/unit) \* Max. Throughput Rate (units/hour) \* Weight % VOC

PTE of VOC (tons/year) = Density (lb/gal) \* Max. Usage Rate (gal/unit) \* Max. Throughput Rate (units/hour) \* Weight % VOC \* 8760 hours/year \* 1 ton/2000 lbs

PTE of PM/PM10 (tons/yr) = Density (lb/gal) \* Max.Usage Rate (gal/unit) \* Max.Throughput Rate (unit/hour) \* Weight % Solids \* (1-Transfer Efficiency %) \* 8760 hrs/yr \* 1 ton/2000 lbs

**Appendix A: Emission Calculations**  
**HAP Emissions**  
**From RV Assembly Area (RV-2)**

**Company Name:** Forest River, Inc., Cherokee Division  
**Address:** 402 Lehman Avenue, Topeka, Indiana 46571  
**Permit:** M087-25098-00052  
**Plt ID:** 087-00052  
**Reviewer:** Stephanie Wilkerson  
**Date:** August 24, 2007

Unit ID	Material	Density (lb/gal)	Max. Usage Rate (gal/unit)	Max. Throughput Rate (unit/hour)	Weight % Toluene	Weight % Hexane	Weight % Ethylbenzene	Weight % Xylene	PTE of Toluene (tons/year)	PTE of Hexane (tons/year)	PTE of Ethylbenzene (tons/year)	PTE of Xylene (tons/year)
<b>Metal Department</b>												
(substrate - wood)	Econobond 29	5.75	0.1515	0.79		18%				0.528		
(substrate - metal)	DAP 55276 Black Spray Paint	5.50	0.0284	0.79	5.0%		5.0%	15%	0.027		0.027	0.081
									<b>0.027</b>	<b>0.528</b>	<b>0.027</b>	<b>0.081</b>
<b>Floors &amp; Plumbing</b>												
(substrate - wood)	Beats the Nail Caulk	10.9	0.330	0.79		7.5%				0.932		
									<b>0.000</b>	<b>0.932</b>	<b>0.000</b>	<b>0.000</b>
<b>Cleaning Process</b>												
NA	Cyclo Brake Cleaner	6.46	0.1420	0.79	35%				1.112			
									<b>1.112</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
<b>Assembly Final</b>												
(substrate - wood)	Web 76 Spray Glue	5.73	0.0142	0.79		25%				0.070		
(substrate - metal)	Cyclo C-33 Spray	5.25	0.0189	0.79		30%				0.103		
(substrate - plastic)	3 M Primer	6.83	0.0088	0.79	0.50%		5.0%	20.0%	0.001		0.010	0.042
									<b>0.001</b>	<b>0.174</b>	<b>0.010</b>	<b>0.042</b>

Total Single HAP (tons/year) = 1.14      1.63      0.04      0.12  
Combination of HAPs (tons/year) = 2.93

**METHODOLOGY**

PTE of HAP (tons/year) = Density (lb/gal) \* Max. Usage Rate (gal/unit) \* Max. Throughput Rate (units/hour) \* Weight % HAP \* 8760 hours/year \* 1 ton/2000 lbs

**Appendix A: Emission Calculations****PM/PM10 Emissions  
Woodworking Process**

**Company Name:** Forest River, Inc., Cherokee Division  
**Address City IN Zip:** 402 Lehman Avenue, Topeka, Indiana 46571  
**Permit:** M087-25098-00052  
**Pit ID:** 087-00052  
**Reviewer:** Stephanie Wilkerson  
**Date:** December 20, 2007

Sourcewide, there are two (2) identical woodworking processes. The calculation methodology below is for one (1) process. The numbers are doubled to accommodate for the second process.

**1. Woodworking Process Description:**

PM Control Equipment:	Cyclone and Baghouse in series
Amount of sawdust collected from baghouse:	5 lbs
Time period of collection:	5.5 hours
Control efficiency - Baghouse:	98.39%
Control efficiency - Cyclone:	95%

**2. Amount collected (lb/hr):** 0.91

**3. Uncontrolled PM/PM10 Emissions:**

= (Amount collected (lbs/hr)) / (control efficiency of the cyclone) =	<b>0.96 lbs/hr</b>
= (Uncontrolled emissions (lbs/hr)) * 8760 hr/yr * (1/2000 lbs/ton) =	<b>4.205 tons/yr</b>

**4. Controlled PM/PM10 Emissions:**

= (Uncontrolled emissions (lbs/hr)) * (1 - control efficiency of the baghouse) =	<b>0.02 lbs/hr</b>
= (Controlled emissions (lbs/hr)) * 8760 hr/yr * (1/2000 lbs/ton) =	<b>0.068 tons/yr</b>

**Sourcewide PM/PM10 Woodworking Emissions**

<b>Uncontrolled:</b>	<b>8.41 tons/yr</b>
<b>Controlled:</b>	<b>0.14 tons/yr</b>

**Appendix A: Emissions Calculations  
Emissions Summary**

**Company Name:** Forest River, Inc., Cherokee Division  
**Address City IN Zip:** 402 Lehman Avenue, Topeka, Indiana 46571  
**Permit:** M087-25098-00052  
**Pit ID:** 087-00052  
**Reviewer:** Stephanie Wilkerson  
**Date:** December 20, 2007

Emission Unit	PM	PM10	SO2	VOC	CO	NOx	HAP - Toluene	HAP - Hexane	HAP - Ethylbenzene	HAP - Benzene	All HAPs
RV-1	34.00	34.00	-	64.80	-	-	2.16	3.10	0.07	0.23	5.57
RV-2	17.60	17.60	-	34.20	-	-	1.14	1.63	0.04	0.12	2.93
Woodworking	8.41	8.41	-	-	-	-	-	-	-	-	-
Natural Gas-Fired Space Heaters	0.00	0.10	0.00	0.10	1.30	1.60	Neg.	Neg.	-	-	Neg.
<b>Uncontrolled Total</b>	<b>60.01</b>	<b>60.11</b>	<b>0.00</b>	<b>99.10</b>	<b>1.30</b>	<b>1.60</b>	<b>3.30</b>	<b>4.73</b>	<b>0.11</b>	<b>0.35</b>	<b>8.50</b>

Emission Unit	PM	PM10	SO2	VOC	CO	NOx	HAP - Toluene	HAP - Hexane	HAP - Ethylbenzene	HAP - Benzene	All HAPs
RV-1	34.00	34.00	-	64.80	-	-	2.16	3.10	0.07	0.23	5.57
RV-2	17.60	17.60	-	34.20	-	-	1.14	1.63	0.04	0.12	2.93
Woodworking	0.14	0.14	-	-	-	-	-	-	-	-	-
Natural Gas-Fired Space Heaters	0.00	0.10	0.00	0.10	1.30	1.60	Neg.	Neg.	-	-	Neg.
<b>Controlled Total</b>	<b>51.74</b>	<b>51.84</b>	<b>0.00</b>	<b>99.10</b>	<b>1.30</b>	<b>1.60</b>	<b>3.30</b>	<b>4.73</b>	<b>0.11</b>	<b>0.35</b>	<b>8.50</b>