NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding a Transition to
Federally Enforceable State Operating Permit (FESOP)

for Forest River, Inc., Plant #63 in Elkhart County

FESOP No.: F039-37894-00760

The Indiana Department of Environmental Management (IDEM) has received an application from Forest River, Inc., Plant #63, located at 2275 Bloomingdale Drive, Bristol, Indiana, for an existing source review and FESOP. If approved by IDEM’s Office of Air Quality (OAQ), this proposed permit would allow Forest River, Inc., Plant #63 to continue to operate the stationary recreational vehicle manufacturing plant.

The applicant intends to operate the equipment at a higher level than MSOP permit, therefore it will emit more air pollutants than permitted by the existing MSOP permit. This notice fulfills the public notice procedures to which those conditions are subject. The potential to emit of any regulated pollutants and hazardous air pollutants will continue to be limited to less than the TV and/or PSD major threshold levels, respectively. IDEM has reviewed this application, and has developed preliminary findings, consisting of a draft permit and several supporting documents, that would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Bristol Washington Township Public Library
505 West Vistula Street
Bristol, IN 46507-0789

and

IDEM Northern Regional Office
300 N. Michigan Street, Suite 450
South Bend, IN 46601-1295

A copy of the preliminary findings is available on the Internet at: [http://www.in.gov/ai/appfiles/idem-caats/](http://www.in.gov/ai/appfiles/idem-caats/).

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the air pollution impact of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will
make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM’s mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number F039-37894-00760 in all correspondence.

Comments should be sent to:

Anh Nguyen
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 3-5334
Or dial directly: (317) 233-5334
Fax: (317) 232-6749 attn: Anh Nguyen
E-mail: pnguyen@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Anh Nguyen of my staff at the above address.

Tripurari P. Sinha, Ph.D., Section Chief
Permits Branch
Office of Air Quality
New Source Construction and Federally Enforceable State Operating Permit
OFFICE OF AIR QUALITY

Forest River, Inc., Plant 63
2275 Bloomingdale Dr.
Bristol, Indiana 46507

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

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 FESOP under 326 IAC 2-8.
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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 through A.3 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 2-8-3(b)]

The Permittee owns and operates a stationary recreational vehicle manufacturing.

Source Address: 2275 Bloomingdale Dr., Bristol, Indiana 46507
General Source Phone Number: 574-534-6913
SIC Code: 3792
County Location: Elkhart
Source Location Status: Attainment for all criteria pollutants
Source Status: Federally Enforceable State Operating Permit Program
Minor Source, under PSD
Minor Source, Section 112 of the Clean Air Act
Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

(a) One (1) assembly operation, identified as EU-01, constructed in 2014 and modified in 2017, with a maximum capacity of 2.5 vehicles per hour, exhausting indoors, and consisting of the following:

(1) One (1) non-atomized HVLP spray gun applied liquid spray adhesive coating operation, using no controls.

(2) Other assembly operations utilizing roll, brush or aerosol coating, consisting of applying adhesives, sealants, caulks, touch-up coatings, and cleaners.

(b) One (1) woodworking operation, identified as EU-02, constructed in 2014, with a maximum capacity of 2.5 vehicles per hour (each vehicle weighs a maximum of 8,300 lbs), with an integral dust collector, exhausting to stack V-01.

(c) Three (3) natural gas fired space heaters each with a maximum capacity of 0.6 MMBtu/hr and thirteen (13) natural gas fired space heaters each with a maximum capacity of 0.2 MMBtu/hr, collectively identified as EU-03, constructed in 2014, uncontrolled, and exhausting or indoors.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Paved and unpaved roads and parking lots.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).
SECTION B  GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]
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 2-7) shall prevail.

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

B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
(a) This permit, F039-37894-00760, 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.4 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.5 Enforceability [326 IAC 2-8-6][IC 13-17-12]
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.6 Severability [326 IAC 2-8-4(4)]
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.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
This permit does not convey any property rights of any sort or any exclusive privilege.

B.8 Duty to Provide Information [326 IAC 2-8-4(5)(E)]
(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. 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.9 Certification (326 IAC 2-8-3(d))(326 IAC 2-8-4(3)(C)(i))(326 IAC 2-8-5(1))

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent 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.10 Annual Compliance Certification (326 IAC 2-8-5(a)(1))

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source’s compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

(b) The annual compliance certification report 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) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.
The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.11 Compliance Order Issuance [326 IAC 2-8-5(b)]
IDEEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.12 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]
(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.
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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

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.13 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.
The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F039-37894-00760 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.15 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 nine (9) months prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a
certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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
Permit Administration and Support Section, 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 nine (9) months 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 2-8 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, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]  

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]  

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee’s copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-8-11.1]
A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][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 FESOP 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.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) 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.24  Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][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.
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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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 except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 that meets the requirements of 326 IAC 2-8-5(a)(1) 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.

Testing Requirements [326 IAC 2-8-4(3)]
C.8 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

Compliance Monitoring Requirements  [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring  [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(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. The analog instrument shall be capable of measuring values outside of the normal range.

(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  [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]
If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]
Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:
(a) The Permittee shall take reasonable response steps to 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 excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;
(2) recording that operations returned or are returning 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 normal or usual manner of operation.

(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 record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(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 submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).
Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

(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. Support information includes the following, where applicable:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following, where applicable:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

(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.

Stratospheric Ozone Protection

C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.
SECTION D.1  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) assembly operation, identified as EU-01, constructed in 2014 and modified in 2017, with a maximum capacity of 2.5 vehicles per hour, exhausting indoors, and consisting of the following:

(1) One (1) non-atomized HVLP spray gun applied liquid spray adhesive coating operation, using no controls.

(2) Other assembly operations utilizing roll, brush or aerosol coating, consisting of applying adhesives, sealants, caulks, touch-up coatings, and cleaners.

(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 2-8-4(1)]

D.1.1  FESOP Limits and [326 IAC 2-8]

In order for 326 IAC 2-7 not applicable to the source, the Permittee shall comply with the following:

(a) The total VOC input to EU-01, shall be limited to less than 99.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limit, combined with the potential to emit VOC, from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than 100 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits), not applicable.

D.1.2  VOC 326 IAC 8-1-6 BACT Limit

(A) The total VOC input to EU-01, shall be limited to less than 99.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(B) The VOC content in the coatings as applied at EU-01 shall not exceed a 6.5 pounds of VOC per gallon.

(C) The use of HVLP spray applications or its equivalent for spray coating operations.

(D) The use of best management practices for the control of VOC emissions as follows:

(1) Sealed lids on containers of VOC containing materials not in use or in storage;

(2) Gun and line purging of VOC containing cleaning solvents into approved containers and at the minimum cleaning pressure required to prevent excess atomization;

(3) Organized spill response and immediate cleanup for spills of VOC containing materials;

(4) Disposal of VOC containing materials may not be performed by allowing solvents to evaporate; and
D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-8-4(1)]

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC content limitation contained in Condition D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. 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 2-8-4(3)]

D.1.5 Record Keeping Requirements [326 IAC 2-8-4(3)]

(a) To document the compliance status with Condition D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1 and D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The amount of coating material and solvent used monthly basis.

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

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

(3) The cleanup solvent usage for each month.

(4) The total VOC usage for each month.

(5) The total VOC usage for each compliance period.

(b) Section C - General Record Keeping Requirements contains the Permittee’s obligations with regard to the records required by this condition.

D.1.6 Reporting Requirements [326 IAC 2-8-4(3)]

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an “authorized individual” as defined by 326 IAC 2 1.1 1(1).
SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) woodworking operation, identified as EU-02, constructed in 2014, with a maximum capacity of 2.5 vehicles per hour (each vehicle weighs a maximum of 8,300 lbs), with an integral dust collector, exhausting to stack V-01.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the woodworking operation shall not exceed 15.48 pounds per hour when operating at a process weight rate of 7.26 pounds per hour.

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

\[ E = 4.10 P^{0.67} \]

Where \( E \) = rate of emission in pounds per hour; and \( P \) = process weight rate in tons per hour

D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.
SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Three (3) natural gas fired space heaters each with a maximum capacity of 0.6 MMBtu/hr and thirteen (13) natural gas fired space heaters each with a maximum capacity of 0.2 MMBtu/hr, collectively identified as EU-03, constructed in 2014, uncontrolled, and exhausting indoors.

(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 2-8-4(1)]

D.3.1 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each space heater shall be limited to 0.6 pounds per MMBtu heat input.

D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION

Source Name: Forest River, Inc., Plant 63
Source Address: 2275 Bloomingdale Dr., Bristol, Indiana 46507
FESOP Permit No.: F039-37894-00760

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 Certification Letter

☐ 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:
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) EMERGENCY OCCURRENCE REPORT

Source Name: Forest River, Inc., Plant 63
Source Address: 2275 Bloomingdale Dr., Bristol, Indiana 46507
FESOP Permit No.: F039-37894-00760

This form consists of 2 pages       Page 1 of 2

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
  • The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  • The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-8-12

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:
<table>
<thead>
<tr>
<th>Item</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Time Emergency started:</td>
<td></td>
</tr>
<tr>
<td>Date/Time Emergency was corrected:</td>
<td></td>
</tr>
<tr>
<td>Was the facility being properly operated at the time of the emergency?</td>
<td>Y</td>
</tr>
<tr>
<td>Describe:</td>
<td></td>
</tr>
<tr>
<td>Type of Pollutants Emitted: TSP, PM-10, SO2, VOC, NOx, CO, Pb, other:</td>
<td></td>
</tr>
<tr>
<td>Estimated amount of pollutant(s) emitted during emergency:</td>
<td></td>
</tr>
<tr>
<td>Describe the steps taken to mitigate the problem:</td>
<td></td>
</tr>
<tr>
<td>Describe the corrective actions/response steps taken:</td>
<td></td>
</tr>
<tr>
<td>Describe the measures taken to minimize emissions:</td>
<td></td>
</tr>
<tr>
<td>If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:</td>
<td></td>
</tr>
</tbody>
</table>

Form Completed by: ___________________________________________

Title / Position: ___________________________________________

Date: ___________________________________________

Phone: ___________________________________________
Source Name: Forest River, Inc., Plant 63  
Source Address: 2275 Bloomingdale Dr., Bristol, Indiana 46507  
FESOP Permit No.: F039-37894-00760  
Source: EU-01  
Pollutant: VOC  
Limit: The total VOC input to EU-01 shall be limited to less than 99.0 tons per twelve (12) consecutive month period.

QUARTER: ____________________ YEAR: ____________________

<table>
<thead>
<tr>
<th>Month</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This Month</td>
<td>Previous 11 Months</td>
<td>12 Month Total</td>
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<tr>
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</tbody>
</table>

☐ No deviation occurred in this quarter.  
☐ Deviation/s occurred in this quarter.  
Deviation has been reported on: ____________________

Submitted by: ____________________  
Title / Position: ____________________  
Signature: ____________________  
Date: ____________________  
Phone: ____________________
This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B - Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C - General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

<table>
<thead>
<tr>
<th>Permit Requirement (specify permit condition #)</th>
<th>Date of Deviation:</th>
<th>Duration of Deviation:</th>
</tr>
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<tbody>
<tr>
<td>Number of Deviations:</td>
<td></td>
<td></td>
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<tr>
<td>Probable Cause of Deviation:</td>
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<td></td>
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<tr>
<td>Response Steps Taken:</td>
<td></td>
<td></td>
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<td>Response Steps Taken:</td>
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</tr>
<tr>
<td>Date of Deviation:</td>
<td>Duration of Deviation:</td>
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<td></td>
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<tr>
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</tr>
<tr>
<td>Probable Cause of Deviation:</td>
<td></td>
</tr>
<tr>
<td>Response Steps Taken:</td>
<td></td>
</tr>
</tbody>
</table>

Form Completed by: ______________________________

Title / Position: ________________________________

Date: ________________________________

Phone: ________________________________
Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit (MSOP) Transitioning to a Federally Enforceable State Operating Permit (FESOP)

**Source Description and Location**

<table>
<thead>
<tr>
<th>Source Name:</th>
<th>Forest River, Inc., Plant 63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Location:</td>
<td>2275 Bloomingdale Dr. Bristol, IN 46507</td>
</tr>
<tr>
<td>County:</td>
<td>Elkhart</td>
</tr>
<tr>
<td>SIC Code:</td>
<td>3792 (Travel trailers and campers)</td>
</tr>
<tr>
<td>Operation Permit No.:</td>
<td>F 039-37894-00760</td>
</tr>
<tr>
<td>Permit Reviewer:</td>
<td>Anh Nguyen</td>
</tr>
</tbody>
</table>

On November 18, 2016, the Office of Air Quality (OAQ) received an application from Forest River, Inc., Plant 63 related to the Transitioning of a Minor Source Operating Permit (MSOP) to a Federally Enforceable State Operating Permit (FESOP).

**Existing Approvals**

The source was issued MSOP No. M039-34761-00760 on October 27, 2014. The source has since received an Administrative Amendment No. 039-35891-00760, issued on August 27, 2015.

Due to this application, the source is transitioning from a MSOP to a FESOP.

**County Attainment Status**

The source is located in Elkhart County.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>Better than national standards.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O₃</td>
<td>Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.¹</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Unclassifiable or attainment effective April 5, 2005, for the annual PM₂.₅ standard.</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>NO₂</td>
<td>Cannot be classified or better than national standards.</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable effective December 31, 2011.</td>
</tr>
</tbody>
</table>

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.

(a) **Ozone Standards**

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) **PM$_{2.5}$**
Elkhart County has been classified as attainment for PM$_{2.5}$. Therefore, direct PM$_{2.5}$, SO$_2$, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) **Other Criteria Pollutants**
Elkhart County has been classified as attainment or unclassifiable in Indiana SO$_2$, CO, PM10, and NOx pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### Fugitive Emissions

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

### Background and Description of New Source Construction

On November 18, 2016, the source submitted an air permit application requesting to transition from a MSOP to a FESOP because the source is expecting to increase the production from the current max of 1.75 units per hour to 2.5 units per hour for one (1) assembly operation, identified as EU-01. This increase would result in the VOC PTE to increase greater than 100 tons per year. The source is also seeking to take a limit on VOC emission to less than 100 tons per year.

The Office of Air Quality (OAQ) has reviewed an application, submitted by Forest River, Inc., Plant 63 on November 18, 2016, relating to the transitioning of a Minor Source Operating Permit (MSOP) to a Federally Enforceable State Operating Permit (FESOP) of an existing stationary recreational vehicle manufacturing plant.

The source consists of the following permitted emission unit(s):

(a) One (1) woodworking operation, identified as EU-02, constructed in 2014, with a maximum capacity of 1.75 vehicles per hour (each vehicle weighs a maximum of 8,300 lbs), with an integral dust collector, exhausting to stack V-01.

(b) Three (3) natural gas fired space heaters each with a maximum capacity of 0.6 MMBtu/hr and thirteen (13) natural gas fired space heaters each with a maximum capacity of 0.2 MMBtu/hr, collectively identified as EU-03, constructed in 2014, uncontrolled, and exhausting or indoors.

(c) Insignificant activities consisting of the following:

1. Paved and unpaved roads and parking lots.

The following is a list of the modified emission units and pollution control device(s):

(d) One (1) assembly operation, identified as EU-01, constructed in 2014 and modified in 2017, with a maximum capacity of 2.5 vehicles per hour, exhausting indoors, and consisting of the following:

1. One (1) non-atomized HVLP spray gun applied liquid spray adhesive coating operation, using no controls.

2. Other assembly operations utilizing roll, brush or aerosol coating, consisting of applying adhesives, sealants, caulks, touch-up coatings, and cleaners.
“Integral Part of the Process” Determination

(a) In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential emissions for particulate matter were calculated after consideration of the controls for Part 70 purposes.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Potential To Emit (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>8.89</td>
</tr>
<tr>
<td>PM10(^{(1)})</td>
<td>3.25</td>
</tr>
<tr>
<td>PM2.5(^{(1)})</td>
<td>1.11</td>
</tr>
<tr>
<td>SO(_2)</td>
<td>0.011</td>
</tr>
<tr>
<td>NO(_x)</td>
<td>1.89</td>
</tr>
<tr>
<td>VOC</td>
<td>131.74</td>
</tr>
<tr>
<td>CO</td>
<td>1.59</td>
</tr>
</tbody>
</table>

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10) and particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM2.5), not particulate matter (PM), are each considered as a "regulated air pollutant".

<table>
<thead>
<tr>
<th>HAPs</th>
<th>Potential To Emit (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single HAP (n-Hexane)</td>
<td>7.58</td>
</tr>
<tr>
<td>TOTAL HAPs</td>
<td>15.96</td>
</tr>
</tbody>
</table>

(a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(30)) of VOC is greater than one hundred (100) tons per year. The PTE of all other criteria pollutants are each less than one hundred (100) tons per year. The source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a Federally Enforceable State Operating Permit (FESOP) (326 IAC 2-8), because the source will limit emissions to less than the Title V major source threshold levels.
(b) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(30)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

PTE of the Entire Source After Issuance of the FESOP

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

<table>
<thead>
<tr>
<th>Process/Emission Unit</th>
<th>Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly (EU-01)</td>
<td>PM 0.65, PM10* 0.65, PM2.5* 0.65, SO2 - 0.0000, NOx - 0.0000, VOC 99.00, CO - 0.0000, Total HAPs 15.96, Worst Single HAP 7.55</td>
</tr>
<tr>
<td>Woodworking (EU-02)</td>
<td>PM 0.068, PM10* 0.068, PM2.5* 0.068, SO2 - 0.0000, NOx - 0.0000, VOC 0.0000, CO - 0.0000, Total HAPs - 0.0000, Worst Single HAP - 0.0000</td>
</tr>
<tr>
<td>Combustion (EU-03)</td>
<td>PM 0.036, PM10* 0.14, PM2.5* 0.14, SO2 0.011, NOx 1.89, VOC 0.10, CO 1.59, Total HAPs 0.04, Worst Single HAP 0.03</td>
</tr>
<tr>
<td>Paved Roads</td>
<td>PM 0.015, PM10* 0.003, PM2.5* 0.0007, SO2 - 0.0000, NOx - 0.0000, VOC - 0.0000, CO - 0.0000, Total HAPs - 0.0000, Worst Single HAP - 0.0000</td>
</tr>
<tr>
<td>Unpaved Roads</td>
<td>PM 8.11, PM10* 2.38, PM2.5* 0.24, SO2 - 0.0000, NOx - 0.0000, VOC - 0.0000, CO - 0.0000, Total HAPs - 0.0000, Worst Single HAP - 0.0000</td>
</tr>
<tr>
<td>Total PTE of Entire Source</td>
<td>8.89, 3.25, 1.11, 0.011, 1.89, 99.10, 1.59, 16.00, 7.58</td>
</tr>
</tbody>
</table>

Title V Major Source Thresholds

| Title V Major Source Thresholds | NA, 100, 100, 100, 100, 100, 100, 25, 10 |

PSD Major Source Thresholds

| PSD Major Source Thresholds | 250, 250, 250, 250, 250, 250, NA, NA |

negl. = negligible

*Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".

(a) FESOP Status and PSD Minor Source

This existing source is not a Title V major stationary source, criteria pollutant VOC from the entire source shall be limited to less than 100 tons per year with compliance determined at the end of each month. In addition, this new source is not a major source of HAPs, as defined in 40 CFR 63.41, because the uncontrolled HAPs are less than ten (10) tons per year for a single HAP and twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

1. The total VOC input to EU-01, shall be limited to less than 99.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit VOC, from all other emission units at this source, shall limit the source-wide total potential to emit of VOC, to less than 100 per 12 consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.
(b) **PSD Minor Source**

This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit all PSD regulated pollutants are less than 250 tons per year, and the source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1), and

(c) **GHGs**

On June 23, 2014, in the case of Utility Air Regulatory Group v. EPA, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court’s decision. U.S. EPA’s guidance states that U.S. EPA will no longer require PSD or Title V permits for sources “previously classified as ‘Major’ based solely on greenhouse gas emissions.”

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

<table>
<thead>
<tr>
<th>Federal Rule Applicability Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Source Performance Standards (NSPS) [40 CFR 60] [326 IAC 12]</strong></td>
</tr>
<tr>
<td>(a) The requirements of the Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations (40 CFR 60.390 Subpart MM), are not included, because this source is not an automobile or light-duty truck assembly plant.</td>
</tr>
<tr>
<td>(b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.</td>
</tr>
<tr>
<td><strong>National Emission Standards for Hazardous Air Pollutants (NESHAP)</strong></td>
</tr>
<tr>
<td>(c) The requirements of National Emission Standard for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks, (40 CFR 63, Subpart IIII) (326 IAC 20-85) are not included, because this source does not apply surface coating materials to automobiles or light-duty trucks.</td>
</tr>
<tr>
<td>(d) The requirements of National Emission Standards for Hazardous Air Pollutants for Plastic Parts and Products (40 CFR 63.4480, Subpart PPPP) (326 IAC 20-81) are not included, because this source is not a major source of HAPs.</td>
</tr>
<tr>
<td>(e) The requirements of National Emission Standards for Hazardous Air Pollutants for Miscellaneous Metal Parts and Products (40 CFR 63.3880, Subpart MMMM)) (326 IAC 20-80) are not included, because this source is not a major source of HAPs.</td>
</tr>
<tr>
<td>(f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, (40 CFR 63.11169, Subpart HHHHHH (6H)), are not included, because the source does not perform paint stripping using MeCl, or perform spray application of coatings, as defined in 40 CFR 63.11180.</td>
</tr>
</tbody>
</table>
| (g) The requirements of the National Emission Standards for Hazardous Air Pollutants for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63,
Subpart XXXXXX (6X)), are not included, because the source does not perform any of the operations listed.

(h) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs)(40 CFR Part 63, Subpart JJJJJJ) Industrial, Commercial, and Institutional Boilers Area Sources, because the space heaters do not meet the definition of boiler or process heater, pursuant to 40 CFR Part 63.11237. Therefore, the requirements of the NESHAP are not included in the permit.

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

Compliance Assurance Monitoring (CAM) [40 CFR 64]

(j) 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 Determination

The following state rules are applicable to the source:

(a) 326 IAC 2-8-4 (FESOP)
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

(c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
None of the emission units at this source is subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs each unit is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

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

(e) 326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1).

(f) 326 IAC 6.5 PM Limitations Except Lake County
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

(g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
(h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source-wide limited fugitive particulate emissions are less than 25 tons per year.

(i) 326 IAC 6.8-10 (Lake County: Fugitive Particulate Matter)
The source is not subject to the requirements of 326 IAC 6.8-10, because it is not located in Lake County.

(j) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

(k) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

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

(1) Pursuant to 326 IAC 6-3-2(b)(15), the Assembly Operation, EU-01, does not apply because it uses less than 5 gallon per day of coating.

(2) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the woodworking operation shall not exceed 15.48 pounds per hour when operating at a process weight rate of 7.26 tons per hour. The pound per hour limitation was calculated with the following equation:

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:

\[ E = 4.10 P^{0.67} \]

where \( E \) = rate of emission in pounds per hour and
\( P \) = process weight rate in tons per hour

Based on calculations, the woodworking operation will meet the rule and comply with this limit.

(3) Pursuant to 326 IAC 6-3-1, the requirements of 326 IAC 6-3-2 are not applicable to the natural gas-fired space heaters because indirect combustion units are exempt from this rule. Since liquid and gaseous fuels and combustion air are not considered as part of the process weight.

(m) 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (\( Pt \)) shall be limited by the following equation:

\[ Pt = \frac{1.09}{Q^{0.26}} \]

Where:

\( Pt \) = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).

\( Q \) = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the
facility’s permit application, except when some lower capacity is contained in the facility’s operation permit; in which case, the capacity specified in the operation.

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6 lb/MMBtu.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Construction Date</th>
<th>Operating Capacity (MMBtu/hr)</th>
<th>Q (MMBtu/hr)</th>
<th>Calculated Pt (lb/MMBtu)</th>
<th>Particulate Limitation, Pt (lb/MMBtu)</th>
<th>PM PTE based on AP-42 (lb/MMBtu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU3 - 3 units + EU3 - 13 units</td>
<td>2014</td>
<td>0.6 (3) +0.2 (13)</td>
<td>4.4</td>
<td>0.74 each</td>
<td>0.6 each</td>
<td>0.002 each</td>
</tr>
</tbody>
</table>

Where: Q = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.

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

(1) The assembly operation (EU-01) has a potential to emit of greater than 25 tons of VOC per year and while coating metal is not regulated under any other article 8 rule. Therefore, EU-01 is subject to 326 IAC 8-1-6 and a Best Available Control Technology (BACT) is required to be applied to the assembly operation.

Forest River Inc., Plant 63 proposed that BACT for the facility located in Bristol, Indiana would be the utilization of a Low VOC/High Solids liquid spray adhesive coating & the use of a Low VOC/High Solids roofing adhesive, high transfer efficiency application methods and a limit on VOC usage. This proposed limit is consistent with other BACT limits. Therefore, the BACT for the Assembly Operation (EU-01) shall be as follows:

(A) The total VOC input to EU-01, shall be limited to less than 99.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(B) The VOC content in the coatings as applied at EU-01 shall not exceed a 6.5 pounds of VOC per gallon.

(C) The use of HVLP spray applications or its equivalent for spray coating operations.

(D) The use of best management practices for the control of VOC emissions as follows:

(aa) Sealed lids on containers of VOC containing materials not in use or in storage;

(bb) Gun and line purging of VOC containing cleaning solvents into approved containers and at the minimum cleaning pressure required to prevent excess atomization;

(cc) Organized spill response and immediate cleanup for spills of VOC containing materials;

(dd) Disposal of VOC containing materials may not be performed by allowing
solvents to evaporate; and

(ee) Preventive maintenance procedures for application equipment to prevent spills and releases of VOC containing materials.

(2) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The woodworking operation is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from the woodworking operation is less than twenty-five (25) tons per year.

(o) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
The emission unit EU-01 consists of adhesive coating operation and other assembly operations utilizing roll, brush or aerosol coating, consisting of applying adhesives, sealants, caulks, touch-up coatings, and cleaners. Therefore, it is not subject to rule 326 IAC 8-2-9.

(p) 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)
This facility does not coat automobile or light duty trucks. Therefore, the requirements of 326 IAC 8-2-2 are not applicable.

(q) 326 IAC 8-2-10 (Flat Wood Panels: Manufacturing Operations (VOC)
The cabinet material is purchased pre-coated, stapled and glued (with zero-HAP white carpenter's glue) into cabinets, which are then mechanically fastened to the product. IDEM, OAQ determined that just installing wood cabinets does not constitute a manufacturer of flat wood panels. Therefore, the requirements of 326 IAC 8-2-10 are not included in this permit.

Miscellaneous

(s) 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Coating Operations)
The only metal being coated is screws and hinges which are coated as part of coating the plastic, which is the predominant coating operation. Plastic coating operations are only subject to this rule if they are located in Lake or Porter County. This source is not located in Lake or Porter County, therefore, the coating operations are not subject to 326 IAC 8-2-9.

(t) There are no other 326 IAC 8 Rules that are applicable to the (facility/unit).

(u) 326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
The natural gas-fired combustion units are not subject to 326 IAC 362 IAC 7-1.1 because its SO₂ PTE (or limited SO₂ PTE) is less than 25 tons/year or 10 pounds/hour.

Compliance Determination, Monitoring and Testing Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.
If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source’s failure to take the appropriate corrective actions within a specific time period.

(a) The compliance determination and monitoring requirements applicable to this source are as follows:

Compliance with the VOC content and usage limitations 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.

Conclusion and Recommendation

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 (date). Additional information was received on March 28, 2017.

The operation of this source shall be subject to the conditions of the attached proposed FESOP No. 039-37894-00760. The staff recommends to the Commissioner that this FESOP be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Anh Nguyen at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5334 or toll free at 1-800-451-6027 extension (3-5334).

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens’ Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.
## Appendix A: Emissions Calculations

### Summary Sheet

**Company Name:** Forest River Inc., Plant # 63  
**Address City IN Zip:** 2275 Bloomingdale Dr. Bristol, IN 46507  
**Permit No.:** F039-37894-00760  
**Reviewer:** Anh Nguyen  
**Date:** 11/18/2016

### Uncontrolled Potential to Emit (tons/yr)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Single HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly (EU-01)</td>
<td>0.65</td>
<td>0.65</td>
<td>0.65</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>131.64</td>
<td>-</td>
<td>15.96</td>
</tr>
<tr>
<td>Woodworking (EU-02)</td>
<td>6.83E-02</td>
<td>6.83E-02</td>
<td>6.83E-02</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7.55 n-Hexane</td>
</tr>
<tr>
<td>Combustion (EU-03)</td>
<td>3.59E-02</td>
<td>0.14</td>
<td>0.14</td>
<td>1.13E-02</td>
<td>1.89</td>
<td>0.10</td>
<td>1.59</td>
<td>0.03</td>
<td>0.04 n-Hexane</td>
</tr>
<tr>
<td><strong>Total for Part 70 and PSD</strong></td>
<td>0.76</td>
<td>0.87</td>
<td>0.87</td>
<td>0.01</td>
<td>1.89</td>
<td>131.74</td>
<td>1.59</td>
<td>15.99</td>
<td></td>
</tr>
</tbody>
</table>

#### Fugitive Emissions

| Paved Roads (EU-02) | 1.52E-02 | 3.03E-03 | 7.45E-04 | - | - | - | - | - |
| Unpaved Roads       | 8.11     | 2.38     | 0.24     | - | - | - | - | - |
| **Total**           | 8.89     | 3.25     | 1.11     | 1.13E-02 | 1.89 | 131.74 | 1.59 | 15.99 |

**Notes:**
1. PM2.5 listed is direct PM2.5
2. PM, PM10, and PM2.5 emissions from the Woodworking (EU-02) operations were calculated after consideration of the controls based on the integral to the process determination.
3. Uncontrolled PTE for road traffic is after natural mitigation from rainfall.

### Potential to Emit after Issuance (tons/yr)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Single HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly (EU-01)</td>
<td>0.65</td>
<td>0.65</td>
<td>0.65</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>99.00</td>
<td>-</td>
<td>15.96</td>
</tr>
<tr>
<td>Woodworking (EU-02)</td>
<td>6.83E-02</td>
<td>6.83E-02</td>
<td>6.83E-02</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7.55 n-Hexane</td>
</tr>
<tr>
<td>Combustion (EU-03)</td>
<td>3.59E-02</td>
<td>0.14</td>
<td>0.14</td>
<td>1.13E-02</td>
<td>1.89</td>
<td>0.10</td>
<td>1.59</td>
<td>0.03</td>
<td>0.04 n-Hexane</td>
</tr>
<tr>
<td>Paved Roads (EU-02)</td>
<td>1.52E-02</td>
<td>3.03E-03</td>
<td>7.45E-04</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Unpaved Roads</td>
<td>8.11</td>
<td>2.38</td>
<td>0.24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8.89</td>
<td>3.25</td>
<td>1.11</td>
<td>1.13E-02</td>
<td>1.89</td>
<td>99.10</td>
<td>1.59</td>
<td>16.00</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. PM2.5 listed is direct PM2.5
2. PM, PM10, and PM2.5 emissions from the Woodworking (EU-02) operations were calculated after consideration of the controls based on the integral to the process determination.
3. Uncontrolled PTE for road traffic is after natural mitigation from rainfall.
4. The shaded cells indicate where limits are included.
### Appendix A: Emissions Calculations

#### VOC

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>From Operation (SIC-0147)</th>
<th>Address City/State:</th>
<th>Permit No.:</th>
<th>TSD ID:</th>
<th>Date:</th>
<th>Reviewer:</th>
<th>Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Potential to Emit</td>
<td>Gallons per day subjected to 50% VOC</td>
<td>8-294)</td>
<td>Coating</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Methodology

1. Weight used volume % Water and Pounds VOC per gallon of coating x loss water volume to be exempt emissions (pounds)
2. EEM. OAG has determined that application of GPK Big block adhesive to all assembly operations at this source when using non-interchange sprayer gun does not generate particulate emissions.

#### Notes:

- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)

#### Pounds VOC per Gallon Coating

<table>
<thead>
<tr>
<th>Material ID</th>
<th>Density</th>
<th>Weight % Water</th>
<th>Weight % Organics</th>
<th>Volume % Water</th>
<th>Volatiles</th>
<th>Solvent Non-stained solids</th>
<th>Solvent Non-stained solids</th>
<th>Volatiles</th>
<th>Solvent Non-stained solids</th>
<th>Solvent Non-stained solids</th>
<th>Volatiles</th>
<th>Solvent Non-stained solids</th>
<th>Solvent Non-stained solids</th>
<th>Volatiles</th>
<th>Solvent Non-stained solids</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11.19</td>
<td>22.80%</td>
<td>0.0%</td>
<td>22.0%</td>
<td>0.0%</td>
<td>79.8%</td>
<td>0.04</td>
<td>1.069</td>
<td>5.29</td>
<td>66.53</td>
<td>2.48</td>
<td>2.46</td>
<td>0.71</td>
<td>161.14</td>
<td>29.41</td>
</tr>
<tr>
<td>2</td>
<td>0.34</td>
<td>23.84%</td>
<td>0.0%</td>
<td>23.0%</td>
<td>0.0%</td>
<td>96.6%</td>
<td>0.04</td>
<td>1.343</td>
<td>5.29</td>
<td>79.63</td>
<td>0.02</td>
<td>0.02</td>
<td>0.07</td>
<td>1.59</td>
<td>0.29</td>
</tr>
<tr>
<td>3</td>
<td>0.59</td>
<td>32.80%</td>
<td>0.0%</td>
<td>32.0%</td>
<td>0.0%</td>
<td>68.6%</td>
<td>0.04</td>
<td>0.191</td>
<td>5.29</td>
<td>6.41</td>
<td>3.07</td>
<td>3.07</td>
<td>0.76</td>
<td>18.74</td>
<td>3.42</td>
</tr>
<tr>
<td>4</td>
<td>0.54</td>
<td>68.80%</td>
<td>0.0%</td>
<td>60.0%</td>
<td>0.0%</td>
<td>40.0%</td>
<td>0.04</td>
<td>0.029</td>
<td>5.29</td>
<td>0.19</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>3.50</td>
</tr>
<tr>
<td>5</td>
<td>0.44</td>
<td>80.80%</td>
<td>0.0%</td>
<td>60.0%</td>
<td>0.0%</td>
<td>68.8%</td>
<td>0.04</td>
<td>0.029</td>
<td>5.29</td>
<td>0.19</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>3.50</td>
</tr>
<tr>
<td>6</td>
<td>0.37</td>
<td>89.00%</td>
<td>0.0%</td>
<td>60.0%</td>
<td>0.0%</td>
<td>87.0%</td>
<td>0.04</td>
<td>0.029</td>
<td>5.29</td>
<td>0.19</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>3.50</td>
</tr>
</tbody>
</table>

#### Notes:

- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
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- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)

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#### Notes:

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- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
- ppm VOC per cause (pounds) (Density [gallons] Weight % VOC) (Volumetric % water)
### Material Density (lb/gal) Out of Unit (gallon) Maximum Weight (% HAP) Potential to Emit (tons/yr)

<table>
<thead>
<tr>
<th>Material</th>
<th>Density</th>
<th>Out of Unit (gallon)</th>
<th>Maximum Weight %</th>
<th>Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG - Ethylene glycol</td>
<td>1.0919</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Benz(a)anthracene</td>
<td>0.0032</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Benzidine</td>
<td>10.00</td>
<td>0.0319</td>
<td>2.50</td>
<td>0%</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>6.55</td>
<td>0.0108</td>
<td>2.50</td>
<td>0%</td>
</tr>
<tr>
<td>Benzo(b)fluoranthene</td>
<td>8.02</td>
<td>0.0053</td>
<td>2.50</td>
<td>0%</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene</td>
<td>0.0242</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>0.0001</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>0.9948</td>
<td>2.50</td>
<td>0%</td>
<td>8.60%</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>0.1029</td>
<td>2.50</td>
<td>0%</td>
<td>2.00%</td>
</tr>
<tr>
<td>Duratex Biobased Epoxy</td>
<td>6.30</td>
<td>0.1184</td>
<td>2.50</td>
<td>0%</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>13.24</td>
<td>0.2149</td>
<td>2.50</td>
<td>0%</td>
</tr>
</tbody>
</table>

### HAPS Emission Rate

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

<table>
<thead>
<tr>
<th>Material</th>
<th>Density</th>
<th>Out of Unit (gallon)</th>
<th>Maximum Weight %</th>
<th>Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG - Ethylene glycol</td>
<td>1.0919</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Benz(a)anthracene</td>
<td>0.0032</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Benzidine</td>
<td>10.00</td>
<td>0.0319</td>
<td>2.50</td>
<td>0%</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>6.55</td>
<td>0.0108</td>
<td>2.50</td>
<td>0%</td>
</tr>
<tr>
<td>Benzo(b)fluoranthene</td>
<td>8.02</td>
<td>0.0053</td>
<td>2.50</td>
<td>0%</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene</td>
<td>0.0242</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
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<td>0.0001</td>
<td>2.50</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>0.9948</td>
<td>2.50</td>
<td>0%</td>
<td>8.60%</td>
</tr>
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<td>0.1029</td>
<td>2.50</td>
<td>0%</td>
<td>2.00%</td>
</tr>
<tr>
<td>Duratex Biobased Epoxy</td>
<td>6.30</td>
<td>0.1184</td>
<td>2.50</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Notes:
- Benzopyrene is included as a HAP because the compound is polycyclic organic material.
- MDI - Methylenediphenyl diisocyanate
- PEI - Polycarbonate (dichlorohydrin)
- EG - Ethylene glycol

### METHODOLOGY

**HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gallon) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs**
# Hazardous Air Pollutant Summary

**Company Name:** Forest River Inc., Plant # 63  
**Address City IN Zip:** 2275 Bloomingdale Dr. Bristol, IN 46507  
**FESOP No.:** F039-37894-00760  
**Reviewer:** Anh Nguyen  
**Date:** 11/18/2016

## Uncontrolled Potential to Emit (tons/yr)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Assembly (EU-01)</th>
<th>Combustion (EU-03)</th>
<th>Total HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organic HAPs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>--</td>
<td>3.97E-05</td>
<td>3.97E-05</td>
</tr>
<tr>
<td>Cumene</td>
<td>1.69</td>
<td>1.69</td>
<td></td>
</tr>
<tr>
<td>Dichlorobenzene</td>
<td>--</td>
<td>2.27E-05</td>
<td>2.27E-05</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>6.39E-04</td>
<td>--</td>
<td>6.39E-04</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>--</td>
<td>1.42E-03</td>
<td>1.42E-03</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>7.55</td>
<td>3.40E-02</td>
<td>7.58</td>
</tr>
<tr>
<td>MDI</td>
<td>1.05</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>Perchloroethylene</td>
<td>0.25</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Styrene</td>
<td>6.39E-04</td>
<td>6.39E-04</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>5.32</td>
<td>6.42E-05</td>
<td>5.32</td>
</tr>
<tr>
<td>Total POM</td>
<td>1.28E-04</td>
<td>1.28E-04</td>
<td></td>
</tr>
<tr>
<td>Vinyl acetate</td>
<td>5.08E-03</td>
<td>5.08E-03</td>
<td></td>
</tr>
<tr>
<td>Xylenes</td>
<td>9.01E-02</td>
<td>9.01E-02</td>
<td></td>
</tr>
<tr>
<td><strong>Inorganic HAPs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>--</td>
<td>2.08E-05</td>
<td>2.08E-05</td>
</tr>
<tr>
<td>Chromium</td>
<td>--</td>
<td>2.65E-05</td>
<td>2.65E-05</td>
</tr>
<tr>
<td>Lead</td>
<td>--</td>
<td>9.45E-06</td>
<td>9.45E-06</td>
</tr>
<tr>
<td>Manganese</td>
<td>--</td>
<td>7.18E-06</td>
<td>7.18E-06</td>
</tr>
<tr>
<td>Nickel</td>
<td>--</td>
<td>3.97E-05</td>
<td>3.97E-05</td>
</tr>
<tr>
<td><strong>Total Emissions</strong></td>
<td>15.96</td>
<td>3.57E-02</td>
<td>15.99</td>
</tr>
</tbody>
</table>

## Potential to Emit after Issuance (tons/yr)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Assembly (EU-01)</th>
<th>Combustion (EU-03)</th>
<th>Total HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organic HAPs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>--</td>
<td>3.97E-05</td>
<td>3.97E-05</td>
</tr>
<tr>
<td>Cumene</td>
<td>1.69</td>
<td>1.69</td>
<td></td>
</tr>
<tr>
<td>Dichlorobenzene</td>
<td>--</td>
<td>2.27E-05</td>
<td>2.27E-05</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>6.39E-04</td>
<td>--</td>
<td>6.39E-04</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>--</td>
<td>1.42E-03</td>
<td>1.42E-03</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>7.55</td>
<td>3.40E-02</td>
<td>7.58</td>
</tr>
<tr>
<td>MDI</td>
<td>1.05</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>Perchloroethylene</td>
<td>0.25</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Styrene</td>
<td>6.39E-04</td>
<td>6.39E-04</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>5.32</td>
<td>6.42E-05</td>
<td>5.32</td>
</tr>
<tr>
<td>Total POM</td>
<td>1.28E-04</td>
<td>1.28E-04</td>
<td></td>
</tr>
<tr>
<td>Vinyl acetate</td>
<td>5.08E-03</td>
<td>5.08E-03</td>
<td></td>
</tr>
<tr>
<td>Xylenes</td>
<td>9.01E-02</td>
<td>9.01E-02</td>
<td></td>
</tr>
<tr>
<td><strong>Inorganic HAPs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>--</td>
<td>2.08E-05</td>
<td>2.08E-05</td>
</tr>
<tr>
<td>Chromium</td>
<td>--</td>
<td>2.65E-05</td>
<td>2.65E-05</td>
</tr>
<tr>
<td>Lead</td>
<td>--</td>
<td>9.45E-06</td>
<td>9.45E-06</td>
</tr>
<tr>
<td>Manganese</td>
<td>--</td>
<td>7.18E-06</td>
<td>7.18E-06</td>
</tr>
<tr>
<td>Nickel</td>
<td>--</td>
<td>3.97E-05</td>
<td>3.97E-05</td>
</tr>
<tr>
<td><strong>Total Emissions</strong></td>
<td>15.96</td>
<td>3.57E-02</td>
<td>15.99</td>
</tr>
</tbody>
</table>
# Appendix A: Emission Calculations

## Woodworking Operations (EU-02)

**Company Name:** Forest River Inc., Plant # 63  
**Address City IN Zip:** 2275 Bloomingdale Dr. Bristol, IN 46507  
**Permit No.:** F039-37894-00760  
**Reviewer:** Anh Nguyen  
**Date:** 11/18/2016

<table>
<thead>
<tr>
<th>Unit ID</th>
<th>Control Efficiency (%)</th>
<th>Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)</th>
<th>Gas or Air Flow Rate (acfm.)</th>
<th>PM Emission Rate before Controls (lb/hr)</th>
<th>PM Emission Rate before Controls (tons/yr)</th>
<th>PM Emission Rate after Controls* (lb/hr)</th>
<th>PM Emission Rate after Controls* (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU2</td>
<td>98.00%</td>
<td>0.00073</td>
<td>2500</td>
<td>0.78</td>
<td>3.42</td>
<td>1.56E-02</td>
<td>6.83E-02</td>
</tr>
</tbody>
</table>

**Totals:** 0.78  3.42  1.56E-02  6.83E-02

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

**Uncontrolled emissions**

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

* In October 1993, a Final Order Granting Summary Judgment was signed by an Administrative Law Judge (ALJ) resolving an appeal of an IDEM permit related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls were necessary for the facility to produce its normal product and is integral to the normal operation of the facility, and therefore, potential emissions were to be calculated after consideration of the controls.
**Appendix A: Emissions Calculations**

**Natural Gas Combustion (EU-03)**

**MM BTU/HR <100**

**Company Name:** Forest River Inc., Plant # 63  
**Address City IN Zip:** 2275 Bloomingdale Dr. Bristol, IN 46507  
**Permit No.:** F039-37894-00760  
**Reviewer:** Anh Nguyen  
**Date:** 11/18/2016

includes:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number</th>
<th>Rated Total (MMBtu/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space heaters</td>
<td>3</td>
<td>0.6 1.8</td>
</tr>
<tr>
<td>Space heaters</td>
<td>13</td>
<td>0.2 2.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>4.4</strong></td>
</tr>
</tbody>
</table>

**Heat Input Capacity**

<table>
<thead>
<tr>
<th>HHV MMBtu/hr</th>
<th>Potential Throughput MMCF/yr</th>
<th>mmBtu MMCF/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.4</strong></td>
<td><strong>37.8</strong></td>
<td><strong>1020</strong></td>
</tr>
</tbody>
</table>

**Emission Factor in lb/MMCF**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>1.13E-02</td>
<td>1.89</td>
<td>0.10</td>
</tr>
<tr>
<td>Potential Emission</td>
<td>3.59E-02</td>
<td>0.14</td>
<td>0.14</td>
<td>1.13E-02</td>
<td>1.89</td>
<td>0.10</td>
<td>1.59</td>
</tr>
</tbody>
</table>

**Methodology**

All emission factors are based on normal firing.  

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

**HAPS Calculations**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>HAPs - Organics</th>
<th>HAPs - Metals</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor</td>
<td>Benzene 2.1E-03</td>
<td>Lead 5.0E-04</td>
<td><strong>3.57E-02</strong></td>
</tr>
<tr>
<td></td>
<td>Dichlorobenzene 1.2E-03</td>
<td>Cadmium 1.1E-03</td>
<td><strong>1.04E-04</strong></td>
</tr>
<tr>
<td></td>
<td>Formaldehyde 7.5E-02</td>
<td>Chromium 1.4E-03</td>
<td><strong>1.04E-04</strong></td>
</tr>
<tr>
<td></td>
<td>Hexane 1.8E+00</td>
<td>Manganese 3.8E-04</td>
<td><strong>1.04E-04</strong></td>
</tr>
<tr>
<td></td>
<td>Toluene 3.4E-03</td>
<td>Nickel 2.1E-03</td>
<td><strong>1.04E-04</strong></td>
</tr>
<tr>
<td><strong>Total - Organics</strong></td>
<td>3.56E-02</td>
<td><strong>6.42E-05</strong></td>
<td><strong>3.57E-02</strong></td>
</tr>
</tbody>
</table>

Methodology is the same as above.

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
Fugitive Dust Emissions - Paved Roads

Company Name: Forest River Inc., Plant # 63
Address City IN Zip: 2275 Bloomingdale Dr. Bristol, IN 46507
Permit No.: F039-37694-00760
Reviewer: Anh Nguyen
Date: 11/18/2016

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum number of vehicles per day</th>
<th>Number of one-way trips per day per vehicle</th>
<th>Maximum trips per day (trip/day)</th>
<th>Maximum Weight Loaded (tons/trip)</th>
<th>Total Weight driven per day (ton/day)</th>
<th>Maximum one-way distance (mile/trip)</th>
<th>Maximum one-way distance (miles/day)</th>
<th>Maximum one-way distance (miles/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Vehicles (entering plant) (one-way trip)</td>
<td>100.0</td>
<td>1.0</td>
<td>100.0</td>
<td>1.0</td>
<td>100.0</td>
<td>200</td>
<td>0.038</td>
<td>3.8</td>
</tr>
<tr>
<td>Employee Vehicles (leaving plant) (one-way trip)</td>
<td>100.0</td>
<td>1.0</td>
<td>100.0</td>
<td>1.0</td>
<td>100.0</td>
<td>200</td>
<td>0.038</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>200.0</strong></td>
<td><strong>200.0</strong></td>
<td><strong>7.6</strong></td>
<td></td>
<td><strong>2765.2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average Vehicle Weight Per Trip = 1.0 tons/trip
Average Miles Per Trip = 0.04 miles/trip

Unmitigated Emission Factor, \( Ef = [k \cdot (sL)^{0.91} \cdot (W)^{1.02}] \) (Equation 1 from AP-42 13.2.1)

\[ PM \text{ PM10 PM2.5} \]

where:
- \( k = 0.011 0.0022 0.00054 \) lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
- \( W = 1.0 1.0 1.0 \) tons = average vehicle weight (provided by source)
- \( sL = 1.1 1.1 1.1 \) g/m² = silt loading value for paved roads at corn wet mills - Table 13.2.1-3

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, \( E_{ext} = Ef \cdot \left[1 - \left(\frac{p}{4N}\right)\right] \) (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, \( E_{ext} = \frac{Ef \cdot \left[1 - \left(\frac{p}{4N}\right)\right]}{P} \) b/mile

where:
- \( P = 125 \) days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
- \( N = 365 \) days per year

Unmitigated Emission Factor, \( Ef = 0.012 0.002 0.0006 \) b/mile
Mitigated Emission Factor, \( E_{ext} = 0.011 0.002 0.0005 \) b/mile

<table>
<thead>
<tr>
<th>Process</th>
<th>Unmitigated PTE of PM (tons/yr)</th>
<th>Unmitigated PTE of PM10 (tons/yr)</th>
<th>Unmitigated PTE of PM2.5 (tons/yr)</th>
<th>Mitigated PTE of PM (tons/yr)</th>
<th>Mitigated PTE of PM10 (tons/yr)</th>
<th>Mitigated PTE of PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (entering plant) (one-way trip)</td>
<td>0.01</td>
<td>1.66E-03</td>
<td>4.07E-04</td>
<td>0.01</td>
<td>1.52E-03</td>
<td>3.72E-04</td>
</tr>
<tr>
<td>Vehicle (leaving plant) (one-way trip)</td>
<td>0.01</td>
<td>1.66E-03</td>
<td>4.07E-04</td>
<td>0.01</td>
<td>1.52E-03</td>
<td>3.72E-04</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1.66E-02</strong></td>
<td><strong>3.32E-03</strong></td>
<td><strong>8.14E-04</strong></td>
<td><strong>1.52E-02</strong></td>
<td><strong>3.03E-03</strong></td>
<td><strong>7.45E-04</strong></td>
</tr>
</tbody>
</table>

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (tons/trip) = SUM(Maximum Weight driven per day (ton/day)) / SUM(Maximum trips per day (trip/day))
Average Miles Per Trip (miles/trip) = SUM(Maximum one-way miles (miles/day)) / SUM(Maximum trips per year (trip/day))
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (b/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (b/mile)] * (ton/2000 lbs)
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit
Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

### Vehicle Information (provided by source)

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum number of vehicles</th>
<th>Number of one-way trips per day per vehicle</th>
<th>Maximum trips per day (trip/day)</th>
<th>Maximum Weight Loaded (tons/trip)</th>
<th>Weight driven per day (ton/day)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum one-way distance (mi/trip)</th>
<th>Maximum one-way miles (miles/day)</th>
<th>Maximum one-way miles (miles/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery trucks (entering plant) (one-way trip)*</td>
<td>15.0</td>
<td>1.0</td>
<td>15.0</td>
<td>20.0</td>
<td>300.0</td>
<td>1200</td>
<td>0.227</td>
<td>3.4</td>
<td>1244.3</td>
</tr>
<tr>
<td>Delivery trucks (leaving plant) (one-way trip)*</td>
<td>15.0</td>
<td>1.0</td>
<td>15.0</td>
<td>20.0</td>
<td>300.0</td>
<td>1200</td>
<td>0.227</td>
<td>3.4</td>
<td>1244.3</td>
</tr>
<tr>
<td>* Delivery trucks leaving plant are conversatively assumed to be loaded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Average Vehicle Weight Per Trip

- Total Weight driven per day (ton/day)
- Average Miles Per Trip

#### Unmitigated Emission Factor, $E_f$

$$E_f = k^*[\left(s/12\right)^a]*\left(W/3\right)^b$$  
(Equation 1 from AP-42 13.2.2)

- Where $k = 4.9, 1.5, 0.15 \text{ lb/mi}$  
- $s = 9.7, 9.7, 9.7 \%$  
- $W = 20.0, 20.0, 20.0 \text{ tons}$  
- $b = 0.45, 0.45, 0.45 \text{ miles/trip}$

#### Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext}$

$$E_{ext} = E_f \left(\frac{365 - P}{365}\right)$$  
(Equation 2 from AP-42 13.2.2)

- Where $P = 125 \text{ days of rain greater than or equal to 0.01 inches}$  

#### Process

<table>
<thead>
<tr>
<th>Process</th>
<th>Unmitigated PTE of PM (tons/yr)</th>
<th>Unmitigated PTE of PM10 (tons/yr)</th>
<th>Unmitigated PTE of PM2.5 (tons/yr)</th>
<th>Mitigated PTE of PM (tons/yr)</th>
<th>Mitigated PTE of PM10 (tons/yr)</th>
<th>Mitigated PTE of PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (entering plant) (one-way trip)</td>
<td>6.17</td>
<td>1.81</td>
<td>0.18</td>
<td>4.06</td>
<td>1.19</td>
<td>0.12</td>
</tr>
<tr>
<td>Vehicle (leaving plant) (one-way trip)</td>
<td>6.17</td>
<td>1.81</td>
<td>0.18</td>
<td>4.06</td>
<td>1.19</td>
<td>0.12</td>
</tr>
</tbody>
</table>

#### Methodology

- **Total Weight driven per day (ton/day)**
  - = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
- **Maximum one-way distance (mi/trip)**
  - = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
- **Average Vehicle Weight Per Trip (ton/trip)**
  - = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
- **Average Miles Per Trip (miles/trip)**
  - = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
- **Unmitigated PTE (tons/yr)**
  - = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
- **Mitigated PTE (tons/yr)**
  - = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
- **Controlled PTE (tons/yr)**
  - = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

#### Abbreviations

- **PM = Particulate Matter**
- **PM10 = Particulate Matter (<10 um)**
- **PM2.5 = Particulate Matter (<2.5 um)**
- **PTE = Potential to Emit**
Source Background and Description

<table>
<thead>
<tr>
<th>Source Name</th>
<th>Forest River, Inc., Plant #63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Location</td>
<td>2275 Bloomingdale Drive, Bristol, IN 46507</td>
</tr>
<tr>
<td>County</td>
<td>Elkhart</td>
</tr>
<tr>
<td>SIC Code</td>
<td>3792 (Travel, Trailers, and Campers)</td>
</tr>
<tr>
<td>Operation Permit No.:</td>
<td>M039-37894-00760</td>
</tr>
<tr>
<td>Permit Reviewer</td>
<td>Anh Nguyen</td>
</tr>
</tbody>
</table>

Proposed Expansion

On November 18, 2016, the Office of Air Quality (OAQ) received an application from Forest River, Inc., Plant #63, located at 2275 Bloomingdale Drive, Bristol, Elkhart County, Indiana relating to the reevaluation of the existing 326 IAC 8-1-6 BACT for the assembly operation, identified as EU-01 due to the proposed increase in the maximum capacity from 1.75 to 2.50 vehicles per hour.

The following is the modified emission unit:

(a) One (1) assembly operation, identified as EU-01, constructed in 2014, modified in 2015, and approved in 2017 for modification, with a maximum capacity of \( \frac{4.75}{2.5} \) vehicles per hour, exhausting indoors, and consisting of the following:

(1) One (1) non-atomized HVLP spray gun for spray adhesive coating operation, using no controls.

(2) Other assembly operations utilizing roll, brush or aerosol coating, consisting of applying adhesives, sealants, caulks, touch-up coatings, and cleaners.

Requirement for Best Available Control Technology (BACT)

In order to include the proposed increase in the maximum capacity of EU-01, the existing 326 IAC 8-1-6 BACT has been reevaluated for EU-01.

Summary of the Best Available Control Technology (BACT) Process

BACT is a mass emission limitation based on the maximum degree of pollution reduction of emissions, which is achievable on a case-by-case basis. BACT analysis takes into account the energy, environmental, and economic impacts on the source. These reductions may be determined through the application of available control techniques, process design, work practices, and operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause or contribute to air pollution, thereby protecting public health and the environment.

Federal guidance on BACT requires an evaluation that follows a “top down” process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by regulation or permit, or controls achieved in practice. The highest level of control is then evaluated for technical feasibility.
The five (5) basic steps of a top-down BACT analysis are listed below:

Step 1: Identify Potential Control Technologies

The first step is to identify potentially “available” control options for each emission unit and for each pollutant under review. Available options should consist of a comprehensive list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies, innovative technologies, and controls applied to similar source categories. There is no requirement in the State or Federal regulations to require innovative control to be used as BACT.

Step 2: Eliminate Technically Infeasible Options

The second step is to eliminate technically infeasible options from further consideration. To be considered feasible, a technology must be both available and applicable. It is important in this step that any presentation of a technical argument for eliminating a technology from further consideration be clearly documented based on physical, chemical, engineering, and source-specific factors related to safe and successful use of the controls. Innovative control means a control that has not been demonstrated in a commercial application on similar units. Innovative controls are normally given a waiver from the BACT requirements due to the uncertainty of actual control efficiency. Based on this, the OAQ will not evaluate or require any innovative controls for this BACT analysis. Only available and proven control technologies are evaluated. A control technology is considered available when there are sufficient data indicating that the technology results in a reduction in emissions of regulated pollutants.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness

The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. The ranked alternatives are reviewed in terms of environmental, energy, and economic impacts specific to the proposed modification. If the analysis determines that the evaluated alternative is not appropriate as BACT due to any of the impacts, then the next most effective is evaluated. This process is repeated until a control alternative is chosen as BACT. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

Step 4: Evaluate the Most Effective Controls and Document the Results

The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. For the technologies determined to be feasible, there may be several different limits that have been set as BACT for the same control technology. The permitting agency has to choose the most stringent limit as BACT unless the applicant demonstrates in a convincing manner why that limit is not feasible. The final BACT determination would be the technology with the most stringent corresponding limit that is economically feasible. BACT must, at a minimum, be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.
The Office of Air Quality (OAQ) makes BACT determinations by following the five steps identified above.

### BACT for Volatile Organic Compound (VOC)

#### Step 1: Identify Potential Control Technologies:

The following control technologies were identified and evaluated to control VOC emissions from the assembly operation (EU-01):

(a) Thermal Oxidation;  
(b) Catalytic Oxidizer;  
(c) Carbon Adsorption;  
(d) Biofiltration;  
(e) Work Practices (including Housekeeping, use of exempt solvent for cleaning purpose and use of a Low VOC/High Solids coating material)  
(f) Absorption Systems;  
(g) Condensation Systems;  
(h) Flares

#### Step 2 – Eliminate Technically Infeasible Control Options

The test for technical feasibility of any control option is whether it is both available and applicable to reducing VOC emissions from the assembly operation (EU-01). The previously listed information resources were consulted to determine the extent of applicability of each identified control alternative.

(a) **Thermal Oxidization**

An efficient thermal oxidizer design must provide adequate residence time for the complete combustion, sufficiently high temperatures for VOC destruction, and adequate velocities to ensure proper mixing without quenching combustion. The type of burners and their arrangement affect combustion rates and residence time; the more thorough the contact between the flame and VOC, the shorter the time required for complete combustion. Natural gas is required to ignite the flue gas mixtures and maintain combustion temperatures. Typically, a heat exchanger upstream of the oxidizer uses the heat content of the oxidizer flue gas to preheat the incoming VOC-laden stream to improve the efficiency of the oxidizer.

A properly designed thermal oxidizer can handle almost all solvent mixtures (except fluorinated or chlorinated solvents), concentration, and therefore meet all regulatory standards. While the combustion of halogenated organics will result in HCL and HF emissions which must be removed by a caustic scrubber, the principal technical deficiency or thermal oxidization is the high fuel consumption required due to the intermittent nature of the operations and the very low heating value of the waste streams. In addition to the energy penalty associated with thermal oxidization, NOx emissions will be generated from the combustion of natural gas used to fuel the oxidizer.
Process gas streams from surface coating operations contain solid particles and high-molecular weight hydrocarbons that produce sticky condensates. Treating these process gas streams with straight thermal oxidation may prove particularly difficult and may cause serious operating and maintenance problems. The large ceramic packing elements characteristic of regenerative thermal oxidizers can cope with gas streams that contain sticky particulate matter or pollutants that might condense in the system. The packed beds are heating periodically to bake-out the particulate matter, thus eliminating the problem. As a result, the thermal oxidizer technology is considered technically feasible to control the VOC emissions from the transfer baghouse, identified as EU-01.

(b) Catalytic Oxidizer

In a catalytic oxidizer, a catalyst is used to lower the activation energy for oxidation. When a preheated gas stream is passed through a catalytic oxidizer, the catalyst bed initiates and promotes the oxidation of the VOC without being permanently altered itself. In catalytic oxidation, combustion occurs at significantly lower temperatures than that of direct flame units and can also achieve a control efficiency of 98%. However, steps must be taken to ensure complete combustion. The types of catalysts used include platinum, platinum alloys, copper chromate, copper oxide, chromium, manganese, and nickel. These catalysts are deposited in thin layers on an inert substrate, usually a honeycomb shaped ceramic.

This option is infeasible because semi-volatile organic compounds in the waste stream would foul the catalyst surface and result in low destruction efficiency and high capital and operating costs for cleaning and replacing catalyst.

(c) Carbon Adsorption

Carbon Adsorption is a process by which VOC is retained on a granular carbon surface, which is highly porous and has a very large surface-to-volume ratio. Organic vapors retained on the adsorbent are thereafter desorbed and both the adsorbate and absorbent are recovered.

Carbon adsorption systems are operated in two phases: adsorption and desorption. Adsorption is rapid and removes most of the VOC in the stream. Eventually, the adsorbent becomes saturated with the vapors and the systems efficiency drops. The adsorbent is regenerated or replaced soon after efficiency begins to decline. In regenerative systems, the adsorbent is reactivated with steam or hot air and the absorbate (solvent) is recovered for reuse or disposal. Non-regenerative systems require the removal of the adsorbent and replacement with fresh or previously generated carbon.

Carbon Adsorbers are not technically feasible to control the VOC emissions from the EU-01 because the molecular weight of VOCs in the exhaust gas stream from the EU-01 are relatively small and therefore, attractive force between adsorption media and VOC is weak.

(d) Biofiltration

A Biofiltration system is a land intensive setup in which contaminated air is fed under an active bed of soil or other substrate containing living microorganisms. As the air rises through the soil, the microorganisms consume and convert the organic materials in the air stream to carbon dioxide and water. The operation at Forest River Inc. is intended to run only eight (8) hours a day five (5) days a week. The microorganisms need to be fed contaminated air consistently to keep these bugs alive. Start up and shut down over weekends and at the end of the working day would prohibit the life of the microorganisms.
Many times in active soil beds other bacteria begin to thrive and spread disease among the microorganisms intended on converting the chemicals to carbon dioxide and water. For these reasons, biofiltration is not technically feasible to control the VOC emissions from EU-01.

(e) Work Practices

Housekeeping Practices
Implementing good housekeeping practices can reduce VOC losses. Such practices include: sealing lids on all containers, maintaining an organized spill response and clean-up operation, performing routine maintenance on spray equipment and pumps to prevent drips and seal leaks, the use of solvent recovery systems to recover reusable solvents for on-site or off-site recycling, and using aqueous, exempt solvents or citric cleaners where effective and practical.

The use of Acetone (exempt solvent) as opposed to mineral spirits used to wipe down the coaches during the assembly operations. Acetone evaporates too quickly to allow for an adequate cleaning as opposed to the Odorless Mineral Spirits being used. Other similar facilities also use mineral spirits.

The use of a Low VOC/High Solids liquid spray adhesive coating & the use of a Low VOC/High Solids roofing adhesive, high transfer efficiency application methods and a limit on VOC usage
Coatings with higher solids content intrinsically have a lower VOC content. Therefore, the use of such coatings is favorable when the need for VOC control is evaluated. Applicators with high transfer efficiencies successfully transfer the majority of the coatings used, and therefore, emit potentially less VOC because less coating is required to coat the substrate.

Based on the information reviewed for this BACT determination, IDEM has determined that the use of Work Practices is a technically feasible option for the assembly operation (EU-01) at this source.

(f) Absorption Systems
Absorption is a unit operation where components of a gas phase mixture (pollutants) are selectively transferred to a relatively nonvolatile liquid, usually water. Sometimes, organic liquids, such as mineral oil or nonvolatile hydrocarbons, are suitable absorption solvents. The choice of solvent depends on cost and the solubility of the pollutant in the solvent.

Low concentrations of organics in an exhaust stream require long contact times and large quantities of absorbent for effective removal. Absorptions in generally more practical for processes in which the absorbent is easily regenerated or the resulting solution can be used as a make-up stream.

Low gas-phase concentrations would require an unreasonable high water throughput rate and/or an inordinately large scrubber to support sufficient contact time.

The concentration of VOCs in the exhaust gas stream from the EU-01 are very low. Based on the information reviewed for this BACT determination, at Forest River, Inc., Plant #63, IDEM has determined that the use of absorption is not a technically feasible option for this source.

(g) Condensation Systems
Condensation is the separation of VOCs from an emission stream through a phase change, by either increasing the system pressure or, more commonly, lowering the
system temperature below the dew point of the VOC vapor. When condensers are used for air pollution control, they usually operate at the pressure of the emission stream, and typically require a refrigeration unit to obtain the temperature necessary to condense the VOCs from the emission stream.

The use of condensation is infeasible because it requires extremely low temperatures (on the order of negative 160 degree F or lower to achieve 90 percent efficiency) to achieve a significant reduction in VOC emissions. A low temperature would be required because the exhaust streams at Forest River, Inc., Plant #63, contain very low concentrations of VOC.

Based on the information reviewed for this BACT determination, at Forest River, Inc., Plant #63, IDEM has determined that the use of a condenser is not a technically feasible option for this source.

(h) Flares
Flaring is used to control VOC emissions by piping VOCs to a remote, usually elevated location and burning them in an open flame in the open air using a specially designed burner tip, auxiliary fuel, and steam or air to promote mixing for nearly complete (> 98%) VOC destruction. While flares are designed to eliminate waste gas streams, they can cause safety and operational problems and the exhaust stream concentration must be high enough to sustain combustion.

The overall flow rate of this stream is very high, but VOC concentrations are low. As such, the heating value of the stream is too low for effective destruction in a flare. Since there are insufficient organics in this vent stream to support combustion, use of a flare would require a significant addition of supplementary fuel. Therefore, a secondary impact of the use of flare for this stream would be the creation of additional emissions from burning supplemental fuel, including NOx. Flares have not been utilized or demonstrated as a control device for VOC from this type operation.

Based on the information reviewed for this BACT determination, at Forest River, Inc., Plant #63, IDEM has determined that the use of a flare is not a technically feasible option for this source.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

Table 1 summarizes the expected control efficiency for the technically feasible control technologies, ranked from the highest to the lowest efficient option.

<table>
<thead>
<tr>
<th>Control Option</th>
<th>Expected Control Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regenerative Thermal Oxidization</td>
<td>95% to 98%</td>
</tr>
<tr>
<td>Carbon Adsorption</td>
<td>90% to 95%</td>
</tr>
<tr>
<td>Work Practices</td>
<td>--</td>
</tr>
</tbody>
</table>

Step 4 – Evaluate the Most Effective Controls and Document Results

Table 2 lists the proposed VOC BACT determination along with the existing VOC BACT determinations for the similar operations. All data in the table is based on the information obtained from the permit application submitted by Forest River, Inc., Plant #63, the U.S. EPA RACT/BACT/LAER Clearinghouse (RBLC), and electronic versions of permits available at the websites of other permitting agencies and IDEM issued permits.
<table>
<thead>
<tr>
<th>RBLID</th>
<th>Date of Issuance</th>
<th>Company and Facility Name</th>
<th>Source Type</th>
<th>Control Technology</th>
<th>Limitation</th>
</tr>
</thead>
</table>
| IN-039-34497-00740 | 11/10/2014       | Forest River Inc., PLANT 6 | Assembly Operations (EU-01)         | NA                 | - total VOC usage shall not exceed 99.0 tpy  
- as applied VOC content shall not exceed 6.5 lb/gal  
- Pollution prevention techniques                                     |
| IN-0085-21854-00106 | 04/20/2006       | Newmar Corporation        | PB1 & PB2                           | NA                 | - total VOC usage shall not exceed 71 tpy  
- VOC content: 6.2 lbs/gal base coat, 3.5 lb/gal clear coat, 3.5 lb/gal primer, 6.5 lb/gal cleaning solvent  
- Pollution prevention techniques                                     |
| IN-0039-15620-00017 | 12/11/2002       | Thor Wakarusa, LLC        | Plant 2 Paint line A-E              | NA                 | - total VOC <539 tpy  
- VOC content: 6.5 lbs/gal thinners, cleaners, and solvents, 3.5 lbs/gal primers, 6.5 lbs/gal base coats, 3.5 lbs/gal clear coats, 3.5 lbs/gal sealers, or 4.5 lbs/gal average  
- Pollution prevention techniques                                     |
| IN-0001-12860-00025 | 10/19/2001       | Fleetwood Motor Homes of Indiana, #44 | Graphics Stripping & Logo Painting Operations | NA | - VOC usage limits  
( < 73 lbs/unit for small units;  
< 111.5 lbs/unit for large unit).  
- Low VOC coatings.  
- Pollution prevention techniques.                                     |
| CA-1105     | 09/12/2000       | Lippert Components, Inc.  | Spray Booth                         | carbon absorber    | - VOC Limit: 90.0% control  
- VOC contents limits  
( < 6.2 lbs/gal for basecoat;  
< 4.4 lbs/gal for clearcoat;  
< 1.8 lbs/gal for undercoat).  
- Pollution prevention techniques                                     |
| IN-0039-12002-00536 | 7/7/2000         | Dynamax Corp.             | PB1 & PB2 Paint Booths              | NA                 | - VOC contents limits  
( < 5.64 lbs/gal for primer/sealer;  
< 6.29 lbs/gal for basecoat;  
< 4.45 lbs/gal for topcoat).  
- 80 VOC usage limit 129 tons/yr  
- Pollution prevention techniques                                     |
| IN-0039-9271-00145 | 12/23/1998       | Gulf Stream Coach, Inc.   | Paint Booths 1, 2 & 3               | NA                 | - VOC coatings input limits  
70 tons of VOC per year.                                     |
70 tons of VOC per year.                                     |
Forest River Inc., Plant #63 does not use clear coats, undercoating, base coats, primers, repair coatings, or sealers like other similar recreational vehicle manufacturers. There are only two coatings used at Forest River Inc., Plant #63; the liquid adhesive spray coatings is sprayed on the sidewall before it is covered by the wall panel, and the roofing adhesive, which is not a paint operation, the roofing material acts like a rubber mat sealant used for waterproofing the roof. Newmar Corporation has a lower VOC emission rate because this is a surface coating operation. Although, the product in their manufacturing processes are similar, the materials applied are completely unique to their respective facilities. Therefore, plant #63 is not required to have as stringent a limit as Newmar Corporation, which has limits for basecoat, clear coat, undercoat, primer and cleaning solvents.

Economic analysis:

The annualized cost of technically feasible controls are as shown below. This cost analysis is from a similar source of a similar size in a different year. The economic analysis was performed by Thor Wakarusa, LLC (SSM no. 039-15620-00017). It is a recreational vehicle manufacturer utilizing a facility in a similar fashion to Forest River, Inc., Plant #63. The cost has been adjusted for inflation.

<table>
<thead>
<tr>
<th>Option</th>
<th>Total Capital Cost ($)</th>
<th>Total Operating Cost ($/yr)</th>
<th>Total Annualized Costs ($/yr)</th>
<th>VOC PTE (ton/yr)</th>
<th>VOC Removal From Add-on Control (ton/yr)</th>
<th>Cost Effectiveness (Total Annualize/ton VOC removed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regenerative Thermal Oxidization with a VOC usage limit (96% overall reduction)</td>
<td>$36,171,732</td>
<td>$7,479,444</td>
<td>$14,521,496</td>
<td>131.64</td>
<td>126.37</td>
<td>$114,913</td>
</tr>
<tr>
<td>Carbon Adsorption with a VOC usage limit (95% overall reduction)</td>
<td>$67,976,473</td>
<td>$10,281,579</td>
<td>$23,462,080</td>
<td>131.64</td>
<td>125.06</td>
<td>$187,607</td>
</tr>
</tbody>
</table>


The regenerative thermal oxidizer and carbon adsorption have a high capital cost, operating cost, and the additional cost of supplying fuel to remove VOC when a control device is being used. Therefore, these options are not economically feasible for the assembly operation, identified as EU-01.

The next most effective control technology is the use of a Low VOC/High Solids liquid spray adhesive coating and the use of a Low VOC/High Solids roofing adhesive, high transfer efficiency application methods and a limit on VOC usage.
Proposed: Forest River, Inc., Plant #63 2275 Bloomingdale Drive, Bristol, IN 46507

The following has been proposed as BACT for VOC from the proposed for the assembly operation, identified as EU-01:

(a) The total VOC input to EU-01, shall be limited to less than 99.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The VOC content in the coatings as applied at EU-01 shall not exceed 6.5 pounds of VOC per gallon.

(c) HVLP spray application or its equivalent spray application method shall be used at EU-01.

(d) The use of best management practices for the control of VOC emissions as follows:

(1) Sealed lids on containers of VOC containing materials not in use or in storage;

(2) Gun and line purging of VOC containing cleaning solvents into approved containers and at the minimum cleaning pressure required to prevent excess atomization;

(3) Organized spill response and immediate cleanup for spills of VOC containing materials;

(4) Disposal of VOC containing materials may not be performed by allowing solvents to evaporate; and

(5) Preventive maintenance procedures for application equipment to prevent spills and releases of VOC containing materials.

Step 5 – Select BACT

Based on the evaluation made in Step 4 above, the BACT for the one (1) assembly operation, identified as EU-01 is determined as follows:

(a) The total VOC input to EU-01, shall be limited to less than 99.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The VOC content in the coatings as applied at EU-01 shall not exceed a 6.5 pounds of VOC per gallon.

(c) The use of HVLP spray applications or its equivalent for spray coating operations.

(d) The use of best management practices for the control of VOC emissions as follows:

(1) Sealed lids on containers of VOC containing materials not in use or in storage;

(2) Gun and line purging of VOC containing cleaning solvents into approved containers and at the minimum cleaning pressure required to prevent excess atomization;

(3) Organized spill response and immediate cleanup for spills of VOC containing materials;
(4) Disposal of VOC containing materials may not be performed by allowing solvents to evaporate; and

(5) Preventive maintenance procedures for application equipment to prevent spills and releases of VOC containing materials.


**Appendix C: Emissions Calculations**

**Summary Sheet**

Company Name: Forest River Inc., Plant #63

Address City/Zip: 1275 Bloomington Ch Cir, Bristol, IN 46507

AA No.: 460-387844-00780

Reviewer: Anh Nguyen

Date: 11/8/2016

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1. **Direct Operating Costs:**
   - Operating Labor: $16,425
   - Supervisory Labor: $27,375
   - Maintenance Labor: $16,425
   - Maintenance Materials: $16,425
   - Electricity: $4,975
   - Steam: $44,490
   - Fuel: $8,775
   - Waste Cooling Cost: $57,581

2. **Indirect Operating Costs:**
   - Administrative Charges: $13,248
   - Insurance: $2,349
   - Total Indirect Operating Cost: $1,294,580

3. **Total Operating Costs:**
   - Total Operating Costs ($/yr): $51,214,800

---

1. **Regenerative Thermal Oxidizer:**
   - Destruction Efficiency: 95.0%
   - Overall Efficiency: 95.0%

2. **Regenerative Carbon Adsorption with a VOC usage limit (96% overall reduction):**
   - Destruction Efficiency: 95.0%
   - Overall Efficiency: 96.0%

---

1. **Direct Purchased Equipment Costs:**
   - Basic Equipment & Accessories: $20,000,000
   - Instruments & Controls: $3,000,000
   - Steam Plant: $2,000,000
   - Freight: $1,000,000
   
   **Total Direct Purchased Equipment C:** $26,000,000

2. **Direct Installation Costs:**
   - Support Installation: $2,080,000
   - Handling & Erection: $3,000,000
   - Electrical: $15,000,000
   - Plumbing: $250,000
   - Insulation: $900,000
   - Fencing: $200,000
   
   **Total Direct Installation (C):** $16,425

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1. **Regenerative Thermal Oxidizer:**
   - Undiluted PTE (tons/yr): $9,328,775
   - Total Annualized Cost: $2,235,870

2. **Regenerative Carbon Adsorption with a VOC usage limit (96% overall reduction):**
   - Undiluted PTE (tons/yr): $9,328,775
   - Total Annualized Cost: $2,235,870

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1. **Carbon Adsorption with a VOC usage limit (95% overall reduction):**
   - Undiluted PTE (tons/yr): $9,328,775
   - Total Annualized Cost: $2,235,870

---

1. **Option Total Capital Cost ($)**
   - Basic Equipment & Accessories: $20,000,000
   - Instruments & Controls: $3,000,000
   - Steam Plant: $2,000,000
   - Freight: $1,000,000
   
   **Total Option C:** $26,000,000

2. **Option Total Operating Cost ($/yr):**
   - Total Operating Costs ($/yr): $51,214,800

---

1. **Option Cost Effectiveness:**
   - Cost Effectiveness: 51.26%
August 2, 2017

Mr. William Conway
Forest River Inc Plant #63
PO Box 3030
Elkhart IN 46515

Re: Public Notice
Forest River Inc Plant #63
Permit Level: FESOP - Transition from MSOP
Permit Number: 039-37894-00760

Dear Mr. Conway:

Enclosed is a copy of your draft FESOP - Transition from MSOP, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM’s website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Elkhart Truth in Elkhart IN publish the abbreviated version of the public notice no later than Friday August 2, 2017. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Bristol Washington Township Public Library, 505 West Vistula Street in Bristol IN. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Anh Nguyen, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-5334 or dial (317) 233-5334.

Sincerely,

Halley Mays
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 1/9/2017

Recycled Paper
ATTENTION:  PUBLIC NOTICES, LEGAL ADVERTISING

August 2, 2017

Elkhart Truth
421 South Second Street
PO Box 487
Elkhart IN 46515

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Forest River Inc Plant #63, Elkhart County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than Friday July 4, 2017.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor’s Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Halley Mays at 800-451-6027 and ask for extension 2-6698 or dial 317-232-6698.

Sincerely,

Halley Mays
Permit Branch
Office of Air Quality

Permit Level:  FESOP - Transition from MSOP
Permit Number:  039-37894-00760

Enclosure
PN Newspaper.dot 1/9/2017
August 2, 2017

To: Bristol Washington Township Public Library

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

Subject: Important Information to Display Regarding a Public Notice for an Air Permit

Applicant Name: Forest River Inc. Plant #63
Permit Number: 039-37894-00760

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. Please make this information readily available until you receive a copy of the final package.

If you have any questions concerning this public review process, please contact Joanne Smiddle-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.
Notice of Public Comment

August 2, 2017
Forest River Inc Plant #63
039-37894-00760

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana’s Air Permitting Program.

Please Note: If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.
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