



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

To: Interested Parties

Date: December 29, 2017

From: Jenny Acker, Chief
Permits Branch
Office of Air Quality

Source Name: RDF Jasper LLC

Permit Level: New Source Construction and Minor Source Operating Permit (MSOP)

Permit Number: 073-39121-00051

Source Location: 1644 North 1100 West
Fair Oaks, Indiana

Type of Action Taken: Initial Permit

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, choose Search Option **by Permit Number**, then enter permit 39121.

The final decision is also available via IDEM's Virtual File Cabinet (VFC). Please go to: <http://www.IN.idem.gov> and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

(continues on next page)

If you would like to request a paper copy of the permit document, please contact IDEM's Office of Records Management:

IDEM - Office of Records Management
Indiana Government Center North, Room 1207
100 North Senate Avenue
Indianapolis, IN 46204
Phone: (317) 232-8667
Fax: (317) 233-6647
Email: IDEMFILEROOM@idem.in.gov

Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room N103, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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



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Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

**New Source Construction and Minor Source Operating
Permit
OFFICE OF AIR QUALITY**

**RDF Jasper LLC
1644 N 1100 W
Fair Oaks, Indiana 47943**

(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.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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

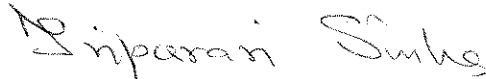
Operation Permit No.: M073-39121-00051	
Master Agency Interest ID: 119219	
Issued by:  Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: December 29, 2017 Expiration Date: December 29, 2022

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary manufacturing of natural gas by upgrading biogas operation.

Source Address:	1644 N 1100 W, Fair Oaks, Indiana 47943
General Source Phone Number:	(312) 300-6757
SIC Code:	4925
County Location:	Jasper
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source 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

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

- (a) One (1) flare, identified as FL01, approved in 2017 for construction, with a total maximum heat input capacity of 55.312 MMBtu per hour, a maximum capacity of 1,539 standard cubic feet per minute of biogas, using no controls, and exhausting to stack S01.
- (b) One (1) gas scrubbing system, identified as GUS02, approved in 2017 for construction, with a maximum capacity of 1,539 standard cubic feet per minute of biogas, using no controls, and exhausting to stack S02.
- (c) Unpaved roads. [326 IAC 6-4]

SECTION B GENERAL CONDITIONS

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

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

B.2 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 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

B.4 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M073-39121-00051, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, 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.5 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.6 Enforceability

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

B.7 Severability

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

B.8 Property Rights or Exclusive Privilege

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

B.9 Duty to Provide Information

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. 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.10 Annual Notification [326 IAC 2-6.1-5(a)(5)]

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

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

B.11 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) 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 Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M073-39121-00051 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.13 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.14 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete 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 one hundred twenty (120) days prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.15 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.16 Source Modification Requirement

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

B.17 Inspection and Entry

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

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

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air

pollution control equipment), practices, or operations regulated or required under this permit;

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

B.18 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.19 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.20 Credible Evidence [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

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

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (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 Stack Height [326 IAC 1-7]

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

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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.

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. 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

C.13 Response to Excursions or Exceedances

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

- (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.

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

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

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

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

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

-
- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
 - (b) Unless otherwise specified in this permit, 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.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

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

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

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) flare, identified as FL01, approved in 2017 for construction, with a total maximum heat input capacity of 55.312 MMBtu per hour, a maximum capacity of 1,539 standard cubic feet per minute of biogas, using no controls, and exhausting to stack S01.

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

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

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

In order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable, the flare shall be limited as follows:

- (a) The total maximum biogas combusted in the flare shall not exceed 350 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The emissions from the flare shall not exceed 142.8 pounds of VOC per million cubic foot.

Compliance with this limit shall limit the potential to emit of VOC to less than twenty-five (25) tons per twelve (12) consecutive month period from the flare and shall render the requirements of 326 IAC 8-1-6 not applicable to the flare.

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

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

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

D.1.3 Flare Pilot Flame

The Permittee shall monitor continuously the presence of a flame in the flare using a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the flame itself to indicate the continuous presence of a flame. Continuous means the reading shall be taken every 15 minutes.

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

D.1.4 Record Keeping Requirement

- (a) To document the compliance status with Condition D.1.1, the Permittee shall maintain monthly records of the biogas combusted in the flare.
- (b) To document the compliance status with Condition D.1.3, the Permittee shall maintain records of continuous flame presence of the flare. The Permittee shall include in its record when presence of a pilot flame is not recorded and the reason for the lack of flame presence reading (e.g., the process did not operate that day).
- (c) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligation with regard to the records required by this condition.

D.1.5 Reporting Requirement

- (a) A quarterly summary of the information to document the compliance status with Condition D.1.1 shall be submitted using the reporting form located at the end of this permit, or its equivalent, no 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.

Indiana Department of Environmental Management

Office of Air Quality

Compliance and Enforcement Branch

Quarterly Report

Source Name: RDF Jasper LLC
Source Address: 1644 N 1100 W, Fair Oaks, Indiana 47943
MSOP Permit No.: M073-39121-00051
Source: Flare
Pollutant: VOC
Limit: 350 million cubic feet per twelve (12) consecutive month period

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

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

Company Name:	RDF Jasper LLC
Address:	1644 N 1100 W
City:	Fair Oaks, Indiana 47943
Phone #:	(312) 300-6757
MSOP #:	M073-39121-00051

I hereby certify that RDF Jasper LLC is :

still in operation.

I hereby certify that RDF Jasper LLC is :

no longer in operation.

in compliance with the requirements of MSOP M073-39121-00051.

not in compliance with the requirements of MSOP M073-39121-00051.

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

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

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865**

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

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

RDF Jasper LLC
1644 N 1100 W
Fair Oaks, Indiana 47943

Affidavit of Construction

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

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

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

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

4. I hereby certify that RDF Jasper LLC 1644 N 1100 W, Fair Oaks, Indiana 47943, completed construction of the cleaning and distributing biogas to natural gas operation on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on Reviewer: **Insert date application received at IDEM** and as permitted pursuant to New Source Construction Permit and Minor Source Operating Permit No. M073-39121-00051, Plant ID No. 073-00051 issued on _____.

5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

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

Signature _____
Date _____

STATE OF INDIANA)
)SS

COUNTY OF _____)

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

Signature _____
Name _____ (typed or printed)

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

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

Source Background and Description

Source Name: RDF Jasper LLC
Source Location: 1652 N 1100 W, Fair Oaks, Indiana 47943
County: Jasper
SIC Code: 4925
Operation Permit No.: M073-39121-00051
Permit Reviewer: Sarah Green

On November 21, 2017, the Office of Air Quality (OAQ) had a notice published in the Rensselaer Republican, Rensselaer, Indiana, stating that RDF Jasper LLC had applied for a MSOP to construct and operate a new stationary source that will clean and distribute biogas to natural gas. The notice also stated that the OAQ proposed to issue a MSOP for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On November 17, 2017, Ryan Turner submitted comments to IDEM, OAQ on the draft MSOP.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

In the "Source Summary" language pertaining to the operation, could you include language that references "manufacturing" of natural gas on the final permit as that's our actual line of work - "manufacturing of renewable natural gas by upgrading biogas"?

Response to Comment 1:

IDEM agrees with the recommended changes, since the revised source description more accurately reflects the source's process. The permit has been revised as follows:

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

~~The Permittee owns and operates a stationary cleaning and distributing biogas to natural gas operation~~ **manufacturing of natural gas by upgrading biogas operation.**

IDEM Contact

- (a) Questions regarding this proposed MSOP can be directed to Sarah Green 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) 232-8423 or toll free at 1-800-451-6027 extension 2-8423.

- (b) A copy of the permit 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 Air Permits page on the Internet at: <http://www.in.gov/idem/airquality/2356.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

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

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

Source Description and Location
--

Source Name:	RDF Jasper LLC
Source Location:	1644 N 1100 W, Fair Oaks, Indiana 47943
County:	Jasper
SIC Code:	4925 (Mixed, Manufactured, or Liquefied Petroleum Gas Production and/or Distribution)
Operation Permit No.:	073-39121-00051
Permit Reviewer:	Sarah Green

On September 27, 2017, the Office of Air Quality (OAQ) received an application from RDF Jasper LLC related to the construction and operation of a new stationary cleaning and distributing biogas to natural gas plant.

Source Definition

RDF Jasper LLC is constructing a new plant to convert biogas to natural gas (source ID 073-00051) using biogas from manure digesters at Bos Dairy, LLC (source ID 073-00046), Herrema Dairy, LLC (source ID 073-00047), and Windy Ridge Dairy, LLC (073-00044). IDEM, OAQ has examined whether the RDF Jasper plant and any of the dairies are part of the same source. The term "source" is defined at 326 IAC 1-2-73. In order for any of these operations, referred to as "plants", to be considered one source they must meet all three of the following criteria:

- (1) the plants must be under common ownership or common control;
- (2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (3) the plants must be located on the same, contiguous or adjacent properties.

The RDF Jasper plant and each of the three dairies are owned by separate corporations, none of whom share a 50% or more of ownership with any of the others. No corporate officers or directors are shared between RDF Jasper and any of the dairies. There is no common ownership between any of the plants.

Where there is no common ownership, IDEM, OAQ must determine if there is common control. IDEM's Nonrule Policy Document Air-005 applies to the definition of "major source" in 326 IAC 2-7-1(22). Since the definition of major source and source are almost identical, Air-005 is also helpful guidance in defining a source. All of IDEM's nonrule policy documents are available at <http://www.in.gov/idem/ctap/2485.htm> on IDEM's website. NPD Air-005 sets out two independent tests to determine if common control exists when there is no common ownership.

The first test, the auxiliary activity test, determines whether one plant performs an auxiliary activity which directly serves the purpose of the primary activity and whether the owner or operator of the primary activity has a major role in the day-to-day operations of the auxiliary activity. An auxiliary activity directly serves the purpose of a primary activity by supplying a necessary raw material to the primary activity or performing an integral part of the production process for the primary activity.

Day-to-day control of the auxiliary activity by the primary activity may be evidenced by several factors, including:

- Is a majority of the output of the auxiliary activity provided to the primary activity?
- Can the auxiliary activity contract to provide its products/services to a third-party without the consent of the primary activity?
- Can the primary activity assume control of the auxiliary activity under certain circumstances?
- Is the auxiliary activity required to complete periodic reports to the primary activity?

If one or a combination of these questions is answered affirmatively, common control may exist.

The major output of each dairy is milk, which is not sent to the RDF Jasper plant. Each of the dairies sends biogas from its manure digester to RDF Jasper, but the biogas is less than 50% of each dairy's total output. The RDF Jasper plant sends nothing to the dairies. None of the dairies may contract to send its biogas to any other customer without consent from the RDF Jasper plant. The RDF Jasper plant cannot assume control of any of the dairies under any circumstance. The dairies do not send periodic reports to RDF Jasper plant. The RDF Jasper plant does not have a major role in the day-to-day operations of any of the dairies. Therefore, the first common control test is not met.

The second common control test in the nonrule policy is the but/for test. This test focuses on whether the auxiliary activity would exist absent the needs of the primary activity. If all or a majority of the output of the auxiliary activity is consumed by the primary activity the but/for test is satisfied. The majority of the output of each of the dairies is milk. The RDF Jasper plant does not send any output to any of the dairies. If the RDF Jasper plant were to shut down, the dairies would continue to operate and could flare their biogas. None of the plants supplies 50% or more of the biogas requirements for the RDF Jasper plant. If any one of the dairies were to shut down, the RDF Jasper plant would continue to operate using biogas from the other two plants. Therefore, the second common control test is also not met.

IDEM finds that none of the dairies are under the control of the RDF Jasper plant. Since neither common ownership nor common control exists, the first part of the definition of source is not met.

The Standard Industrial Classification Manual of 1987 sets out how to determine the proper SIC Code for each type of business. More information about SIC Codes is available at http://www.osha.gov/pls/imis/sic_manual.html on the Internet. The SIC Code is determined by looking at the principal product or activity of each plant. The three dairies share the same two-digit Major Group 02 for Agricultural Production- Livestock. RDF Jasper belongs to the Major Group 49 for Electric, Gas, and Sanitary Services. RDF Jasper does not share the same two-digit SIC Code with any of the three dairies.

A plant is considered a support facility to another plant if at least 50% of the output of one plant is dedicated to the other plant. Each of the dairies will sell all of their biogas to RDF Jasper. However, biogas is less than 50% of the total output of each dairy. Milk is the major output of each dairy. RDF Jasper will use the biogas to create its primary product, natural gas. None of the natural gas will go to any of the three dairies. None of the plants is a support facility. None of the plants meets the second part of the source definition.

The last part of the source definition is whether the plants are on the same, contiguous or adjacent properties. RDF Jasper and Windy Ridge Dairy are located on the same property, so they meet the third part of the source definition. Bos Dairy and Herrema Dairy are located on separate properties that do not share a common border with any other plant. Since the Bos Dairy and the Herrema Dairy are not located on the same or contiguous properties, IDEM, OAQ must determine if either one is located on an adjacent property.

The term "adjacent" is not defined in Indiana's rules. IDEM's Nonrule Policy Document Air-005 is guidance regarding the definition of "major source" in 326 IAC 2-7-1(22). However, since the definitions of source and major source are almost identical, Air-005 is relevant to determining when two properties are adjacent in a source determination. All of IDEM's nonrule policies are available at <http://www.in.gov/idem/ctap/2485.htm> on IDEM's website. Air-005 adds the following guidance:

- Properties that actually abut at any point would satisfy the requirement of contiguous or adjacent

property.

- Properties that are separated by a public road or public property would satisfy this requirement, absent special circumstances.
- Other scenarios would be examined on an individual basis with the focus on the distance between the activities and the relationship between the activities.

The U.S. EPA has a similar view on how to interpret the term “adjacent” when defining a source. Two U.S. EPA letters; the May 21, 1988 letter from U.S. EPA Region 8 to the Utah Division of Air Quality, and the U.S. EPA Region 5 letter dated October 18, 2010 to Scott Huber at Summit Petroleum Corporation, discuss the term “adjacent” as it is used in making major source determinations. These letters are not binding on IDEM but they are persuasive for two reasons. The letters follow the guidance in NPD Air-005 that IDEM will examine both the distance between the sources and their relationship and, secondly, they illustrate a longstanding U.S. EPA analysis used to determine if two sources are “adjacent” going back to the preamble to the 1980 NSR program definition of “major source”. U.S. EPA’s consistent approach is that any evaluation of what is “adjacent” must relate to the guiding principal of a common sense notion of “source”.

All IDEM evaluations of adjacency are done on a case-by-case basis looking at the specific factors for the sources involved. In addition to determining the distance between the properties, IDEM asks:

- (1) Are materials routinely transferred between the sources?
- (2) Do managers or other workers frequently shuttle back and forth to be involved actively in the sources?
- (3) Is the production process itself split in any way between the sources?

These questions focus on whether the separate sources are so interrelated that they are functioning as one source, and whether the distance between them is small enough that it enables them to operate as one source. U.S. EPA Assistant Administrator Gina McCarthy issued a memorandum on September 22, 2009 that confirmed U.S. EPA’s view that each source determination must be done on a case-by-case basis and stated that after that analysis is completed it may be that physical proximity serves as an overwhelming factor in determining if the properties are adjacent.

RDF Jasper is located at 1644 N 1100 W, Fair Oaks, Indiana 47943. Bos Dairy is located 5.15 miles away at 10777 W 700 N, Fair Oaks, Indiana 47943. Biogas is routinely transferred from Bos Dairy to RDF Jasper. Workers and managers rarely travel back and forth between the two plants. There is no split in production, as RDF Jasper takes useable biogas from the dairy to produce natural gas. Considering all these factors, IDEM, OAQ has determined that the two plants are not located on adjacent properties.

The Herrema Dairy is located at 10998 W 500 N, Fair Oaks, Indiana 47943, 3.45 miles from the RDF Jasper plant. Biogas is routinely transferred from the dairy to RDF Jasper. Workers and managers rarely travel back and forth between the two plants. There is no split in production, as RDF Jasper takes useable biogas from the dairy to produce natural gas. Considering all these factors, IDEM, OAQ has determined that the two plants are not located on adjacent properties.

IDEM, OAQ finds that RDF Jasper and the three dairies (Bos Dairy, Herrema Dairy, and Windy Ridge Dairy) do not meet all three parts of the source definition and are not part of the same source.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Jasper County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard.
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

- (a) **Ozone Standards**
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Jasper County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM_{2.5}**
 Jasper County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **Other Criteria Pollutants**
 Jasper County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, PM₁₀, NO₂, and Pb. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

- (a) The fugitive emissions of regulated pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) 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

The Office of Air Quality (OAQ) has reviewed an application, submitted by RDF Jasper LLC on September 27, 2017, relating to the construction of facility that scrubs biogas to create natural gas using the digester gas produced from three nearby dairies.

The following is a list of the new emission units:

- (a) One (1) flare, identified as FL01, approved in 2017 for construction, with a total maximum heat input capacity of 55.312 MMBtu per hour, a maximum capacity of 1,539 standard cubic feet per minute of biogas, using no controls, and exhausting to stack S01.

- (b) One (1) gas scrubbing system, identified as GUS02, approved in 2017 for construction, with a maximum capacity of 1539 standard cubic feet per minute of biogas, using no controls, and exhausting to stack S02.
- (c) Unpaved roads.[326 IAC 6-4]

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 – MSOP
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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.

Pollutant	Potential To Emit (tons/year)
PM	4.24
PM10 ⁽¹⁾	3.80
PM2.5	3.66
SO ₂	94.31
NO _x	9.46
VOC	33.92
CO	11.16

(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".

HAPs	Potential To Emit (tons/year)
Ethylbenzene	0.35
Formaldehyde	0.28
Benzene	0.04
Acetaldehyde	0.01
Hexane	0.01
Toluene	0.01
Xylenes	0.01
TOTAL HAPs	0.72

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of SO₂ and VOC are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) 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) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, 40 CFR 60, Subpart VVa (326 IAC 12) are not included in this permit since this regulation does not apply to chemicals extracted from natural sources or totally produced by biological process. The US EPA clarified this interpretation in the Federal Register (48 FR 48335) for 40 CFR 60, Subpart VV.
- (b) The requirements of the New Source Performance Standard (NSPS) for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes, 40 CFR 60, Subpart III (326 IAC 12), are not included in the permit since the source does not produce any of the chemicals listed in 40 CFR 60.617 as a product, co-product, by-product, or intermediate.
- (c) The requirements of the New Source Performance Standard (NSPS) for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015, 40 CFR 60, Subpart OOOOa (326 IAC 12), are not included in this permit since the source does not create natural gas by hydraulic fracturing, using a centrifugal compressor, and reciprocating compressor, nor is it a pneumatic controller affected facility, does not have storage vessels, and lastly use sweetening units. This facility uses manure to convert into natural gas.
- (d) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) from Off-Site Waste Recovery Operations, 40 CFR 63, Subpart DD (326 IAC 20-23), are not included in the permit, since the plant site is not a major source of hazardous air pollutant emissions, as defined in 40 CFR 63.2.
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) From Oil and Natural Gas Production Facilities, 40 CFR 63, Subpart HH (326 IAC 20), are not included in this permit since this source is not a major source of HAPs.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process, 40 CFR 63, Subpart SS (326 IAC 20-39), are not included in this permit since the source is not subject to the provisions of a specific subpart in 40 CFR 63 that references Subpart SS.
- (h) The requirements of the National Emission Standard for Hazardous Air Pollutants for Chemical Manufacturing Area Sources, 40 CFR 63, Subpart VVVVVV (326 IAC 20), are not included in this permit since the source does not operate a chemical manufacturing process unit (CMPU).
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Chemical Preparations Industry, 40 CFR 63, Subpart BBBB BBB, are not included in the permit, because this source does not contain a "chemical preparations facility" or a "chemical preparations operation in target HAP service" as defined in 40 CFR 63.11588.

- (j) There are no 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)

- (k) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is 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 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This new source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit all PSD regulated pollutants is less than 250 tons per year and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (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), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations).
- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
The source is subject to the requirements of 326 IAC 6-4, because the unpaved roads have the potential to emit fugitive particulate emissions. 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.
- (g) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (h) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Flare

- (i) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The flare is exempt from the requirements of 326 IAC 6-3-2, because it is not considered a part of a manufacturing process as defined by 326 IAC 6-3-1.5(2).

- (j) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
The biogas flare has unlimited sulfur dioxide (SO₂) emissions greater than twenty-five (25) tons per year. However, this unit is not subject to the requirement of 326 IAC 7-1.1, because the flare does not combust coal or oil. The flare only combusts biogas.
- (k) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The unlimited VOC potential emissions from the flare is greater than twenty-five (25) tons per year. In order to render the requirements of 326 IAC 8-1-6 not applicable, the source shall limit the potential VOC emissions to below twenty-five (25) tons per year.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the total maximum biogas combusted in the flare shall not exceed 350 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit the potential to emit VOC from the flaring of biogas to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

Compliance Determination, Monitoring and Testing Requirements

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

Emission Unit/Control	Operating Parameters	Frequency
Flare	Presence of pilot flame	Continuous

- (b) There are no testing requirements applicable to this source.

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 September 27, 2017.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Construction and MSOP No. 073-39121-00051. The staff recommends to the Commissioner that this New Source Construction and MSOP be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Sarah Green at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCM 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8423 or toll free at 1-800-451-6027 extension 2-8423.
- (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 Air Permits page on the Internet at: <http://www.in.gov/idem/airquality/2356.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A: Emissions Calculations
Potential to Emit Summary**

Company Name: RDF Jasper LLC
Source Address: 1644 N 1100 W, Fair Oaks, IN 47943
Permit Number: 073-39121-00051
Reviewer: Sarah Green

Uncontrolled Potential to Emit (tons/yr)											
Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	HAP	Worst Single HAP	H2S	
Flare (FL01)	3.64	3.64	3.64	94.31	9.46	33.92	11.16	0.72	0.35	Ethylbenzene	50.17
Digester Gas Scrubber (GUS02)*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00
Unpaved Roads	0.60	0.16	0.02	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00
Total	4.24	3.80	3.66	94.31	9.46	33.92	11.16	0.72	0.35	Ethylbenzene	50.17

*The tail gas from the scrubber is approximately 97% CO₂, 2.5% CH₄, and 0.5% H₂O/N₂/O₂.

**Appendix A: Emission Calculations
Flare**

Company Name: RDF Jasper LLC
Source Address: 1644 N 1100 W, Fair Oaks, IN 47943
Permit Number: 073-39121-00051
Reviewer: Sarah Green

Input Data				
Flare Heat Input Capacity	55.31 MMBtu/hr	Molecular Weight (H2S)	34.08	lb/lb mole
Heating Value of Digester Gas	599.00 Btu/CF	Molecular Weight (SO ₂)	64.06	lb/lb mole
Inlet Gas Temperature	536.67 °R	Molecular Weight (CH ₄)	16.04	lb/lb mole
Inlet Gas Pressure	1.00 atm	Molecular Weight (CO ₂)	44.01	lb/lb mole
Design Flare Gas Flow	1,539 SCFM	Weight % Water in LFG	0.0%	

Flare Gas Flow Rate (Wet Basis)		Flare Gas Flow Rate (Dry Basis)		% Methane	Methane Flow Rate (Dry Basis)			
1,539	SCFM	1,539	DSCFM	60.00%	923.40	SCFM	or	485.34 MMCF/yr

Potential to Emit Calculations - Flare

Pollutant	Concentration (ppmv)	Pollutant Flow (SCFM)	Throughput	Emission Factor	PTE (TPY)	Emission Factor Source
PM			485.34 MMCF/yr, CH ₄ , dry	15.0 lb/MMCF CH ₄ , dry	3.64	AP-42, Chapter 2.4, Table 2.4-4, 10/2008
PM ₁₀			485.34 MMCF/yr, CH ₄ , dry	15.0 lb/MMCF CH ₄ , dry	3.64	Assumed the same as PM
PM _{2.5}			485.34 MMCF/yr, CH ₄ , dry	15.0 lb/MMCF CH ₄ , dry	3.64	Assumed the same as PM
H ₂ S	1426.00	2.195			50.17	Source Specified ppmv H ₂ S
SO ₂					94.31	Calculated
VOC			55.31 MMBtu/hr	0.14 lb/MMBtu	33.92	AP-42, Chapter 13.5, Table 13.5-1, 12/2016
CO			485.34 MMCF/yr, CH ₄ , dry	46 lb/MMCF CH ₄ , dry	11.16	AP-42, Chapter 2.4, Table 2.4-4, 10/2008
NO _x			485.34 MMCF/yr, CH ₄ , dry	39 lb/MMCF CH ₄ , dry	9.46	AP-42, Chapter 2.4, Table 2.4-4, 10/2008

HAPs Emissions						
Pollutant	Throughput	Emission Factor	PTE (TPY)	Emission Factor Source		
Acetaldehyde	485.34 MMCF/yr CH ₄ , dry	0.043 lb/MMCF CH ₄ , dry	0.01	California Air Resources Board (CARB), AB 2588, May 2001		
Acrolein	485.34 MMCF/yr CH ₄ , dry	0.010 lb/MMCF CH ₄ , dry	0.00			
Benzene	485.34 MMCF/yr CH ₄ , dry	0.159 lb/MMCF CH ₄ , dry	0.04			
Ethylbenzene	485.34 MMCF/yr CH ₄ , dry	1.444 lb/MMCF CH ₄ , dry	0.35			
Formaldehyde	485.34 MMCF/yr CH ₄ , dry	1.169 lb/MMCF CH ₄ , dry	0.28			
Hexane	485.34 MMCF/yr CH ₄ , dry	0.029 lb/MMCF CH ₄ , dry	0.01			
Napthalene	485.34 MMCF/yr CH ₄ , dry	0.011 lb/MMCF CH ₄ , dry	0.00			
Toluene	485.34 MMCF/yr CH ₄ , dry	0.058 lb/MMCF CH ₄ , dry	0.01			
Xylenes	485.34 MMCF/yr CH ₄ , dry	0.029 lb/MMCF CH ₄ , dry	0.01			
Total HAPs					0.72	

Notes:

- Methane Flow Rate = Flare Gas Flow Rate x (% Methane)
- DSCFM = SCFM x (1 - % Water)
- Pollutant Flow (SCFM) = [Total biogas Flow (SCFM)] x [ppmv pollutant / 1,000,000]
- PTE (TPY) = Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x [4.38 hr-ton/lb-yr]
- PTE (TPY) = 360 x Pollutant Flow (SCFM) x Molecular Weight (lb/lb.mole) x P (atm) / T (°R); AP-42 Ch. 2.4, Eq. 4, Converted to US Units
- PTE (TPY) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1 ton/2,000 lb

Flare VOC Limit

Heat Input Capacity (MMBtu/hr)	VOC Emission Factor (lb/MMBtu)	VOC Emission Factor (lb/MMCF)	Limited Throughput (MMCF/yr)	Limited VOC (ton/year)	Limited VOC (lb/hr)
55.31	0.14	142.8	350.00	24.99	5.71

Methodology

VOC Emission Factor (lb/MMCF) = VOC Emission Factor (lb/MMBtu) * (1020 MMBtu/1 MMCF)
 Limited VOC (ton/year) = Limited Throughput (MMCF/yr) * VOC Emission Factor (lb/MMCF) * (1 ton/2000 lbs)
 Limited VOC (lb/hr) = Limited VOC (ton/yr) * (2000 lbs/ton) / (8760 hrs/yr)

**Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads**

Company Name: **RDF Jasper LLC**
Source Address: **1644 N 1100 W, Fair Oaks, IN 47943**
Permit Number: **073-39121-00051**
Reviewer: **Sarah Green**

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)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Car/SUV (entering plant) (one-way trip)	3.0	2.0	6.0	4.0	24.0	500	0.095	0.6	207.4
Car/SUV (leaving plant) (one-way trip)	3.0	2.0	6.0	4.0	24.0	500	0.095	0.6	207.4
Sludge Truck (entering plant) (one-way trip)	1.0	0.5	0.5	18.0	9.0	500	0.095	0.0	17.3
Sludge Truck (leaving plant) (one-way trip)	1.0	0.5	0.5	38.0	19.0	500	0.095	0.0	17.3
Totals			13.0		76.0			1.2	449.3

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

Unmitigated Emission Factor, $E_f = k[(s/12)^a][(W/3)^b]$ (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	6.0	6.0	6.0	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Iron and Steel Production)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	5.8	5.8	5.8	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E * [(365 - P)/365]$ (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, $E_{ext} = E * [(365 - P)/365]$
where P = days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	4.07	1.09	0.11	lb/mile
Mitigated Emission Factor, $E_{ext} =$	2.68	0.71	0.07	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Mitigated PTE of PM (Before Control) (tons/yr)	Mitigated PTE of PM10 (Before Control) (tons/yr)	Mitigated PTE of PM2.5 (Before Control) (tons/yr)	Mitigated PTE of PM (After Control) (tons/yr)	Mitigated PTE of PM10 (After Control) (tons/yr)	Mitigated PTE of PM2.5 (After Control) (tons/yr)
Car/SUV (entering plant) (one-way trip)	0.28	0.07	0.01	0.28	0.07	0.01
Car/SUV (leaving plant) (one-way trip)	0.28	0.07	0.01	0.28	0.07	0.01
Sludge Truck (entering plant) (one-way trip)	0.02	0.01	0.00	0.02	0.01	0.00
Sludge Truck (leaving plant) (one-way trip)	0.02	0.01	0.00	0.02	0.01	0.00
Totals	0.60	0.16	0.02	0.60	0.16	0.02

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 (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)]
Mitigated PTE (Before Control) (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (After Control) (tons/yr) = (Mitigated PTE (Before Control) (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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Obi Ofoegbu
RDF Jasper LLC
1130 West Monroe Street, Suite 310
Chicago, IL 60607

DATE: December 29, 2017

FROM: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
New Source Construction and Minor Source Operating Permit (MSOP)
073-39121-00051

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Scott Severson, EarthWise, Inc.
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 1/9/2017



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

December 29, 2017

TO: Rensselaer Library

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: RDF Jasper LLC


Permit Number: 073-39121-00051

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 1/9/2017

Mail Code 61-53

IDEM Staff	VHAUN 12/29/2017 RDF Jasper LLC 073-39121-00051 FINAL		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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2		Jasper County Commissioners 115 W. Washington Street Rensselaer IN 47978 (Local Official)										
3		Jasper County Health Department 105 W. Kellner St Rensselaer IN 47978-2623 (Health Department)										
4		Rensselaer Public Library 208 W Susan Street Rensselaer IN 47978-2699 (Library)										
5		Mr. Kenny Haun P.O. Box 280 Rensselaer IN 47978 (Affected Party)										
6		Edward & Susan Wood 945 N 1100 W. Fair Oaks IN 46310 (Affected Party)										
7		Scott Severson EarthWise, Inc. 63 S. Franklin St., Suite B Valparaiso IN 46383 (Consultant)										
8		Malcolm Dekryger Iroquois Valley Swine Breeders LLC PO Box 460 Demotte IN 46310 (Affected Party)										
9		Kosta Farms J&M LLC 10500 W St Rd 14 Fair Oaks IN 47943 (Affected Party)										
10		Dirk Eggleston T&M Limited Partnership 9451 N St Rd 10 Demotte IN 46310 (Affected Party)										
11		Hwy 65 IDOH LaPorte District PO Box 429 LaPorte IN 46350 (Affected Party)										
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