

#### 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

Michael R. Pence

Thomas W. Easterly

Commissioner

# NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a Significant Revision to a Minor Source Operating Permit (MSOP)

For Copper Moon Coffee in Tippecanoe County

Significant Permit Revision No. 157-34158-00468

The Indiana Department of Environmental Management (IDEM) has received an application from Copper Moon Coffee located at 1759 Veterans Memorial Pkwy East, Lafayette, Indiana 47905 for a significant revision of its MSOP No. M157-32506-00468 issued on January 22, 2013. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Copper Moon Coffee to make certain changes at its existing stationary coffee roasting facility. Copper Moon Coffee has applied to construct and operate an additional batch coffee roaster system.

The applicant intends to construct and operate new equipment that will emit air pollutants. 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:

Tippecanoe County Library 627 South St. Lafayette, IN 47901

A copy of the preliminary findings is available on the Internet at: 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 30<sup>th</sup> 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 157-34158-00468 in all correspondence.



#### Comments should be sent to:

Brian Wright
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension (4-6544)
Or dial directly: (317) 234-6544
Fax: (317)-232-6749 attn: Brian Wright

E-mail: Bwright1@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 you can participate, please see IDEM's **Guide for Citizen Participation** and **Permit Guide** on the Internet at: <a href="https://www.idem.in.gov">www.idem.in.gov</a>.

#### 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, and the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions please contact Brian Wright of my staff at the above address.

Nathan C. Bell, Section Chief

Permits Branch Office of Air Quality

RW



#### 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

Michael R. Pence *Governor* 



Thomas W. Easterly

Commissioner

# Minor Source Operating Permit OFFICE OF AIR QUALITY

## Copper Moon Coffee 1759 Veterans Memorial Pkwy East Lafayette, Indiana 47905

(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. M157-32506-00468	
Issued by: Original document signed by	Issuance Date: January 22, 2013
Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Expiration Date: January 22, 2018

Significant Permit Revision No. 157-34158-00468	
Issued by:	Issuance Date:
Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Expiration Date: January 22, 2018





# TABLE OF CONTENTS

A. SOUR	CE SUMMARY4
A.1	General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]
A.2	Emission Units and Pollution Control Equipment Summary
D OFNE	AL COMPITIONS
B.1	RAL CONDITIONS6  Definitions [326 IAC 2-1.1-1]
B.1 B.2	Revocation of Permits [326 IAC 2-1.1-9(5)]
B.3	Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]
B.4	Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
B.5	Term of Conditions [326 IAC 2-1.1-9.5]
B.6	Enforceability
B.7	Severability
B.8	Property Rights or Exclusive Privilege
B.9	Duty to Provide Information
B.10	Annual Notification [326 IAC 2-6.1-5(a)(5)]
B.11	Preventive Maintenance Plan [326 IAC 1-6-3]
B.12	Prior Permits Superseded [326 IAC 2-1.1-9.5]
B.13	Termination of Right to Operate [326 IAC 2-6.1-7(a)]
B.14	Permit Renewal [326 IAC 2-6.1-7]
B.15	Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]
B.16	Source Modification Requirement
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]
B.18	Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]
B.19	Annual Fee Payment [326 IAC 2-1.1-7]
B.20	Credible Evidence [326 IAC 1-1-6]
C SOLID	CE OPERATION CONDITIONS11
C. SOUR	SE OPERATION CONDITIONS
Emissio	on Limitations and Standards [326 IAC 2-6.1-5(a)(1)]
C.1	Particulate Emission Limitations For Processes with Process Weight Rates
• • • • • • • • • • • • • • • • • • • •	Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
C.2	Permit Revocation [326 IAC 2-1.1-9]
C.3	Opacity [326 IAC 5-1]
C.4	Open Burning [326 IAC 4-1] [IC 13-17-9]
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.6	Fugitive Dust Emissions [326 IAC 6-4]
C.7	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]
	Requirements [326 IAC 2-6.1-5(a)(2)]
C.8	Performance Testing [326 IAC 3-6]
Compli	anas Basuiramanta [226 IAC 2.4.4.44]
•	ance Requirements [326 IAC 2-1.1-11]
C.9	Compliance Requirements [326 IAC 2-1.1-11]
Compli	ance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]
C.10	Compliance Monitoring [326 IAC 2-1.1-11]
C.10	Instrument Specifications [326 IAC 2-1.1-11]
5.11	monament opposition to to the triff
Correct	ive Actions and Response Steps
C.12	Response to Excursions or Exceedances
C.13	Actions Related to Noncompliance Demonstrated by a Stack Test

#### First Significant Permit Revision No. 157-34158-00468 Amended by: Brian Wright

Page 3 of 23 M157-32506-00468

Permit Reviewer:	DRAFT
C.14 C.15 C.16	Reping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]  Malfunctions Report [326 IAC 1-6-2]  General Record Keeping Requirements [326 IAC 2-6.1-5]  General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2]  [IC 13-14-1-13]
D.1. EMISSIC	ONS UNIT OPERATION CONDITIONS17
D.1.1	Limitations and Standards [326 IAC 2-6.1-5(a)(1)] Particulate [326 IAC 6-3-2] Preventive Maintenance Plan [326 IAC 1-6-3]
•	ce Determination Requirements Particulate Control
Malfunction R	cation

#### **SECTION A**



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 coffee roasting facility.

Source Address: 1759 Veterans Memorial Pkwy East, Lafayette, Indiana

47905

General Source Phone Number: 317-541-9000

SIC Code: 2095 (Roasted Coffee)

County Location: Tippecanoe

Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit Program

Minor Source, under PSD and Emission Offset Rules

Minor Source, Section 112 of the Clean Air Act

Not 1 of 28 Source Categories

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

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

- (a) One (1) coffee roasting process, approved for construction in 2013, identified as unit S1, with a maximum throughput of 1 ton per hour of green coffee beans, consisting of the following units:
  - (1) One (1) natural gas fired roaster, approved for construction in 2013, identified as unit B1, with a maximum capacity of 1.65 MMBtu/hr, and exhausting to the thermal afterburner unit and the roaster cyclone.
  - (2) One (1) voluntary natural gas fired thermal afterburner, approved for construction in 2013, identified as unit S2, used for pollution control, with a maximum heat capacity of 3 MMBtu/hr, and exhausting to Stack 1.
  - One (1) cyclone, approved for construction 2013, identified as roaster cyclone CE1, used for pollution control, and exhausting to the roaster unit.
- (b) One (1) coffee cooling process, approved for construction in 2013, identified as unit S3, used for the purpose of cooling the beans while separating out any foreign materials, with a maximum throughput of 1 ton per hour of roasted coffee beans, consisting of the following units:
  - (1) One (1) cooler/stoner unit, approved for construction in 2013, used for air cooling the beans while separating out foreign materials, and exhausting to the cooler/stoner cyclone.
  - (2) One (1) stoner hopper, approved for construction in 2013, used for loading the roasted beans into the storage area, and exhausting to the cooler/stoner cyclone.



- One (1) cyclone, approved for construction in 2013, identified as cooler/stoner cyclone CE3, and exhausting to Stack 2.
- (c) One (1) green coffee bean storage unit, with an associated feed bin for loading the beans into the roaster, approved for construction in 2013, approved for modification in 2014, identified as unit S4, with a maximum throughput of 2 tons per hour.
- (d) One (1) roasted coffee bean storage unit, approved for construction in 2013, approved for modification in 2014, with a maximum throughput of 2 tons per hour.
- (e) One (1) packaging unit, approved for construction in 2013, approved for modification in 2014, with a maximum throughput of 2 tons per hour.
- (f) One (1) coffee roasting process, approved for construction in 2014, identified as unit S5, with a maximum throughput of 1 ton per hour of green coffee beans, consisting of the following units:
  - (1) One (1) natural gas fired roaster, approved for construction in 2014, identified as unit B3, with a maximum capacity of 1.65 MMBtu/hr, and exhausting to the thermal afterburner unit and the roaster cyclone.
  - One (1) voluntary natural gas fired thermal afterburner, approved for construction in 2014, identified as unit S7, used for pollution control, with a maximum heat capacity of 3 MMBtu/hr, and exhausting to Stack 3.
  - One (1) cyclone, approved for construction 2014, identified as roaster cyclone CE4, used for particulate control, and exhausting to the roaster unit.
- (g) One (1) coffee cooling process, approved for construction in 2014, identified as unit S6, used for the purpose of cooling the beans while separating out any foreign materials, with a maximum throughput of 1 ton per hour of roasted coffee beans, consisting of the following units:
  - (1) One (1) cooler/stoner unit, approved for construction in 2014, used for air cooling the beans while separating out foreign materials, and exhausting to the cooler/stoner cyclone.
  - One (1) stoner hopper, approved for construction in 2014, used for loading the roasted beans into the storage area, and exhausting to the cooler/stoner cyclone.
  - One (1) cyclone, approved for construction in 2014, identified as cooler/stoner cyclone CE6, and exhausting to Stack 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, M157-32506-00468, 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.

## DRAFT

#### 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]

- 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 M157-32506-00468 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:

## DRAFT

- (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.

Page 9 of 23

M157-32506-00468

(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;

# DRAFT

- (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.

Page 12 of 23

M157-32506-00468

Copper Moon Coffee Lafayette, Indiana Permit Reviewer: Brian Wright

## DRAFT

#### 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.

(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.

Page 13 of 23 M157-32506-00468

DRAFT

(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.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.

- (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.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 2-6.1-5(a)(2)]

#### C.10 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.11 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.

Page 14 of 23 M157-32506-00468

## DRAFT

(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.12 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.13 Actions Related to Noncompliance Demonstrated by a Stack Test

- 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

DRAFT

(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.14 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.15 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.16 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

#### First Significant Permit Revision No. 157-34158-00468 Amended by: Brian Wright

Page 16 of 23 M157-32506-00468

DRAFT

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) coffee roasting process, approved for construction in 2013, identified as unit S1, with a maximum throughput of 1 ton per hour of green coffee beans, consisting of the following units:
  - (1) One (1) natural gas fired roaster, approved for construction in 2013, identified as unit B1, with a maximum capacity of 1.65 MMBtu/hr, and exhausting to the thermal afterburner unit and the roaster cyclone.
  - One (1) voluntary natural gas fired thermal afterburner, approved for construction in 2013, identified as unit S2, used for pollution control, with a maximum heat capacity of 3 MMBtu/hr, and exhausting to Stack 1.
  - (3) One (1) cyclone, approved for construction 2013, identified as roaster cyclone CE1, used for pollution control, and exhausting to the roaster unit.
- (b) One (1) coffee cooling process, approved for construction in 2013, identified as unit S3, used for the purpose of cooling the beans while separating out any foreign materials, with a maximum throughput of 1 ton per hour of roasted coffee beans, consisting of the following units:
  - (1) One (1) cooler/stoner unit, approved for construction in 2013, used for air cooling the beans while separating out foreign materials, and exhausting to the cooler/stoner cyclone.
  - One (1) stoner hopper, approved for construction in 2013, used for loading the roasted beans into the storage area, and exhausting to the cooler/stoner cyclone.
  - One (1) cyclone, approved for construction in 2013, identified as cooler/stoner cyclone CE3, and exhausting to Stack 2.
- (c) One (1) green coffee bean storage unit, with an associated feed bin for loading the beans into the roaster, approved for construction in 2013, approved for modification in 2014, identified as unit S4, with a maximum throughput of 2 tons per hour.
- (d) One (1) roasted coffee bean storage unit, approved for construction in 2013, approved for modification in 2014, with a maximum throughput of 2 tons per hour.
- (e) One (1) packaging unit, approved for construction in 2013, approved for modification in 2014, with a maximum throughput of 2 tons per hour.
- (f) One (1) coffee roasting process, approved for construction in 2014, identified as unit S5, with a maximum throughput of 1 ton per hour of green coffee beans, consisting of the following units:
  - (1) One (1) natural gas fired roaster, approved for construction in 2014, identified as unit B3, with a maximum capacity of 1.65 MMBtu/hr, and exhausting to the thermal afterburner unit and the roaster cyclone.
  - One (1) voluntary natural gas fired thermal afterburner, approved for construction in 2014, identified as unit S7, used for pollution control, with a maximum heat capacity of 3 MMBtu/hr, and exhausting to Stack 3.

Page 18 of 23 M157-32506-00468

## DRAFT

- (3) One (1) cyclone, approved for construction 2014, identified as roaster cyclone CE4, used for particulate control, and exhausting to the roaster unit.
- (g) One (1) coffee cooling process, approved for construction in 2014, identified as unit S6, used for the purpose of cooling the beans while separating out any foreign materials, with a maximum throughput of 1 ton per hour of roasted coffee beans, consisting of the following units:
  - (1) One (1) cooler/stoner unit, approved for construction in 2014, used for air cooling the beans while separating out foreign materials, and exhausting to the cooler/stoner cyclone.
  - One (1) stoner hopper, approved for construction in 2014, used for loading the roasted beans into the storage area, and exhausting to the cooler/stoner cyclone.
  - One (1) cyclone, approved for construction in 2014, identified as cooler/stoner cyclone CE6, and exhausting to Stack 4.

(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 IAC 2-8-4(1)]

#### D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limits listed in the table below:

Unit Description	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)
Coffee Roasting Process (S1)	1	4.1
Coffee Cooler Process (S3)	1	4.1
Green Coffee Bean Storage (S4)	2	6.52
Roasted Coffee Bean Storage Unit	2	6.52
Packaging Unit	2	6.52
Coffee Roasting Process (S5)	1	4.1
Coffee Cooler Process (S6)	1	4.1

The pounds per hour limitations were calculated using 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

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

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

#### **Compliance Determination Requirements**

#### D.1.3 Particulate Control

First Significant Permit Revision No. 157-34158-00468 Amended by: Brian Wright Page 19 of 23 M157-32506-00468

**DRAFT** 

In order to comply with Condition D.1.1, the roaster cyclones (CE1 and CE4) for particulate control shall be in operation and control emissions from the coffee roasting processes at all times the coffee roasting process facilities are in operation.

Page 20 of 23 M157-32506-00468

Copper Moon Coffee Lafayette, Indiana Permit Reviewer: Brian Wright

Company Name:

DRAFT

# 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).

Copper Moon Coffee

Address:	1759 Veterans Memorial P	Pkwy East
City:	Lafayette, Indiana 47905	
Phone #:	317-541-9000	
MSOP #:	M157-32506-00468	
I hereby certify that	t Copper Moon Coffee is :	□ still in operation.
		□ no longer in operation.
I hereby certify tha	t Copper Moon Coffee is :	<ul> <li>□ in compliance with the requirements of MSOP M157-32506-00468.</li> <li>□ not in compliance with the requirements of MSOP M157-32506-00468.</li> </ul>
Authorized Indiv	ridual (typed):	
Title:		
Signature:		
Date:		
		the source is not in compliance, provide a narrative npliance and the date compliance was, or will be
Noncompliance:		

\*SEE PAGE 2

First Significant Permit Revision No. 157-34158-00468 Amended by: Brian Wright Page 21 of 23 M157-32506-00468



# 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 THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT? Y COMPANY: PHONE NO. ( )\_\_\_\_ LOCATION: (CITY AND COUNTY)\_ AFS POINT ID: \_\_\_\_\_ INSP:\_\_ AFS PLANT ID: PERMIT NO. 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: \_\_\_

#### First Significant Permit Revision No. 157-34158-00468 Amended by: Brian Wright

Page 22 of 23 M157-32506-00468



# 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:

#### First Significant Permit Revision No. 157-34158-00468 Amended by: Brian Wright

Page 23 of 23 M157-32506-00468

DRAFT

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

Copper Moon Coffee 1759 Veterans Memorial Pkwy East Lafayette, Indiana 47905

		Α	ffidavit of Const	ruction		
l,	(Name of	, bein the Authorized Representative)	g duly sworn up	on my oath, depo	se and say:	
	1.	I live in(21) years of age, I am competent t	Cou	inty, Indiana and bavit.	peing of sound mind	and over twenty-one
	2.	I hold the position of(T	itle)	for	(Company Na	ame)
	3.	By virtue of my position with				, I have personal
		knowledge of the representations of these representations on behalf of _	ontained in this	affidavit and am a	uthorized to make	
				(Compa	iny Name)	
		I hereby certify that Copper Moon C completed construction of the coffer requirements and intent of the cons 13, 2012 and as permitted pursuant No. M157-32506-00468, Plant ID N	e roasting facility truction permit a t to New Source	y on application receive Construction Per	in ed by the Office of Ai mit and Minor Source	conformity with the r Quality on November e Operating Permit
		Permittee, please cross out the forwere constructed/substituted as detaccordance with the construction per	scribed in the at			
Further /	Affiant said	not.				
I affirm u		Ities of perjury that the representa	tions contained	d in this affidavit a	are true, to the best	of my information
and bein	<b>5</b> 1.		Signature			
STATE (	OF INDIAN )S:		Date			
COUNT	Y OF	)				
	Subscribe	ed and sworn to me, a notary publ	ic in and for _		County	and State of Indiana
on this _		day of	, 20	My Comm	ission expires:	
				Signature Name		(typed or printed)
				. 141110		(t) pod or printod)

# Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Minor Source Operating Permit (MSOP)

#### **Source Description and Location**

Source Name: Copper Moon Coffee

Source Location: 1759 Veterans Memorial Pkwy East, Lafayette, IN 47905

County: Tippecanoe

SIC Code:

Operation Permit No.:

Operation Permit Issuance Date:

Significant Permit Revision No.:

Permit Reviewer:

2095 (Roasted Coffee)

M157-32506-00468

January 22, 2013

157-34158-00468

Brian Wright

On February 7, 2014, the Office of Air Quality (OAQ) received an application from Copper Moon Coffee related to a modification to an existing stationary coffee roasting facility.

#### **Existing Approvals**

The source was issued MSOP No. M157-32506-00468 on January 22, 2013. There have been no subsequent approvals issued.

#### **County Attainment Status**

The source is located in Tippecanoe County.

Pollutant	Designation
SO <sub>2</sub>	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. <sup>1</sup>
PM <sub>2.5</sub>	Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.
PM <sub>2.5</sub>	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
<sup>1</sup> Unclassifiable	e or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked

<sup>1</sup>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. Tippecanoe 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) $PM_{2.5}$

Tippecanoe County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for

 $PM_{2.5}$  emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct  $PM_{2.5}$  significant level at ten (10) tons per year. This rule became effective, June 28, 2011.. 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. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

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

#### **Fugitive Emissions**

- (a) The fugitive emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases 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.

#### Status of the Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

This PTE table is from the TSD of M157-32506-00468, issued on January 22, 2013.

		Potential To Emit of the Entire Source Prior to Revision (tons/year)*									
Process/ Emission Unit	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	СО	GHGs as CO₂e**	Total HAPs	Worst Single HAP	
Natural Gas Combustion	0.04	0.15	0.15	0.01	2.00	0.11	1.68	2411	0.04	0.04 (hexane)	
Coffee Roasting Process	18.40	18.40	18.40	0.00	0.00	3.77	48.18	788.40	0.00	0.00	
Cooler/Stoner/ Hopper	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Green Coffee Bean Storage Unit	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Roasted Coffee Bean Storage Unit	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Packaging Unit	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total PTE of Entire Source	39.11	39.22	39.22	0.01	2.00	3.88	49.86	3199	0.04	0.04 (hexane)	
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10	
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA	

<sup>\*\*</sup>The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

#### **Description of Proposed Revision**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Cooper Moon Coffee on February 7, 2014 relating to the construction and operation of an additional batch coffee roaster system. The additional roaster system will allow the source to double the throughput of the existing green coffee bean storage unit, roasted coffee bean storage unit, and packaging unit. The throughput of these units was previously limited by the amount of coffee that could be processed through the existing batch coffee roaster system.

The following is a list of the modified emission units and pollution control devices:

- (a) One (1) green coffee bean storage unit, with an associated feed bin for loading the beans into the roaster, approved for construction in 2013, approved for modification in 2014, identified as unit S4, with a maximum throughput of 2 tons per hour.
- (b) One (1) roasted coffee bean storage unit, approved for construction in 2013, approved for modification in 2014, with a maximum throughput of 2 tons per hour.
- (c) One (1) packaging unit, approved for construction in 2013, approved for modification in 2014, with a maximum throughput of 2 tons per hour.

The following is a list of the new emission units and pollution control devices:

- (d) One (1) coffee roasting process, approved for construction in 2014, identified as unit S5, with a maximum throughput of 1 ton per hour of green coffee beans, consisting of the following units:
  - (1) One (1) natural gas fired roaster, approved for construction in 2014, identified as unit B3, with a maximum capacity of 1.65 MMBtu/hr, and exhausting to the thermal afterburner unit and the roaster cyclone.
  - One (1) voluntary natural gas fired thermal afterburner, approved for construction in 2014, identified as unit S7, used for pollution control, with a maximum heat capacity of 3 MMBtu/hr, and exhausting to Stack 3.
  - One (1) cyclone, approved for construction 2014, identified as roaster cyclone CE4, used for particulate control, and exhausting to the roaster unit.
- (e) One (1) coffee cooling process, approved for construction in 2014, identified as unit S6, used for the purpose of cooling the beans while separating out any foreign materials, with a maximum throughput of 1 ton per hour of roasted coffee beans, consisting of the following units:
  - (1) One (1) cooler/stoner unit, approved for construction in 2014, used for air cooling the beans while separating out foreign materials, and exhausting to the cooler/stoner cyclone.
  - One (1) stoner hopper, approved for construction in 2014, used for loading the roasted beans into the storage area, and exhausting to the cooler/stoner cyclone.
  - One (1) cyclone, approved for construction in 2014, identified as cooler/stoner cyclone CE6, and exhausting to Stack 4.

#### **Enforcement Issues**

There are no pending enforcement actions related to this revision.

#### **Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

#### Permit Level Determination - MSOP Revision

The following table is used to determine the appropriate permit level under 326 IAC 2-6.1-6. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

	PTE of Proposed Revision (tons/year)									
Process/ Emission Unit	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	СО	GHGs as CO₂e	Total HAPs	Worst Single HAP
New Emission U	Jnits									
Natural Gas Combustion	0.04	0.15	0.15	0.01	2.00	0.11	1.68	2,411	0.04	0.04 (hexane)
Coffee Roasting Process	18.40	18.40	18.40	0.00	0.00	3.77	48.18	788	0.00	0.00
Cooler/Stoner/ Hopper	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0	0.00	0.00
Total PTE of New Emission Units	23.60	23.72	23.72	0.01	2.00	3.88	49.86	3,199	0.04	0.04 (hexane)
Modified Emiss	ion Units	(increase	e in PTE)							
Green Coffee Bean Storage Unit	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0	0.00	0.00
Roasted Coffee Bean Storage Unit	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0	0.00	0.00
Packaging Unit	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0	0.00	0.00
Total Increase in PTE from Modified Emission Units	15.51	15.51	15.51	0.00	0.00	0.00	0.00	0	0.00	0.00
Total PTE of Proposed Revision	39.11	39.22	39.22	0.01	2.00	3.88	49.86	3,199	0.04	0.04 (hexane)

Pursuant to 326 IAC 2-6.1-6(i)(1)(E), this MSOP is revised through Significant Permit Revision because the proposed revision is not an Administrative Amendment or Minor Permit Revision and the proposed revision involves the construction of new emission units with a potential to emit greater than or equal to twenty-five (25) tons per year of PM, PM10, and direct PM2.5.

#### PTE of the Entire Source After Issuance of the MSOP Revision

The table below summarizes the potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as **strikethrough** values.

		Potential To Emit of the Entire Source Prior to Revision (tons/year)*								
Process/ Emission Unit	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	со	GHGs as CO₂e**	Total HAPs	Worst Single HAP
Natural Gas Combustion	0.04 0.08	0.15 0.30	0.15 0.30	0.01 0.02	2.00 3.99	0.11 0.22	1.68 3.35	<del>2,411</del> <b>4,821</b>	0.04 0.08	0.04 <b>0.07</b> (hexane)
Coffee Roasting Processes	18.40 36.79	18.40 36.79	18.40 36.79	0.00	0.00	3.77 7.53	48.18 <b>96.36</b>	788 1,577	0.00	0.00
Coolers/Stoners/ Hoppers	5.17 10.34	5.17 10.34	5.17 10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Green Coffee Bean Storage Unit	5.17 10.34	5.17 10.34	5.17 10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roasted Coffee Bean Storage Unit	5.17 10.34	5.17 10.34	5.17 10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Packaging Unit	5.17 10.34	5.17 10.34	5.17 10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total PTE of Entire Source	39.11 78.22	39.22 78.44	39.22 <b>78.44</b>	0.01 0.02	2.00 3.99	3.88 7.75	49.86 <b>99.71</b>	<del>3,199</del> <b>6,398</b>	0.04 0.08	0.04 <b>0.07</b> (hexane)
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

<sup>\*</sup>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".

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this MSOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
Process/ Emission Unit	PM	PM10*	PM2.5*	SO <sub>2</sub>	NOx	VOC	СО	GHGs as CO₂e**	Total HAPs	Worst Single HAP
Natural Gas Combustion	0.08	0.30	0.30	0.02	3.99	0.22	3.35	4,821	0.08	0.07 (hexane)
Coffee Roasting Processes	36.79	36.79	36.79	0.00	0.00	7.53	96.36	1,577	0.00	0.00
Coolers/Stoners/ Hoppers	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Green Coffee Bean Storage Unit	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roasted Coffee Bean Storage Unit	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Packaging Unit	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total PTE of Entire Source	78.22	78.44	78.44	0.02	3.99	7.75	99.71	6,398	0.08	0.07 (hexane)

<sup>\*\*</sup>The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

Copper Moon Coffee Page 6 of 12 Lafayette, Indiana TSD for MSOP SPR No. 157-34158-00468

Permit Reviewer: Brian Wright

	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
Process/ Emission Unit	PM	PM10*	PM2.5*	SO <sub>2</sub>	NOx	VOC	СО	GHGs as CO₂e**	Total HAPs	Worst Single HAP
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

<sup>\*</sup>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".

#### **MSOP Status**

- (a) This revision to an existing Title V minor stationary source will not change the minor status, because the uncontrolled/unlimited potential to emit criteria pollutants from the entire source will still be less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-6.1 (MSOP).
- (b) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit of any single HAP will still be less than ten (10) tons per year and the PTE of a combination of HAPs will still be 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.
- (c) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit greenhouse gases (GHGs) will still be less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, the source is 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 (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (60.40c through 60.48c) (326 IAC 12), are not included in this revision, because the natural gas fired coffee roaster (S5) is not considered a steam generating unit as defined by 40 CFR 60.41c.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the revision.

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD (63.7480 through 63.7575) (326 IAC 20-95), are not included in the revision, because this source is not a major source of HAPs.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ (63. 11193 through 63.11237), are not included in the revision, because the natural gas fired coffee roaster (S5) is not a boiler (as defined by 40 CFR 63.11237).

<sup>\*\*</sup>The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

Permit Reviewer: Brian Wright

(e) 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 revision.

#### Compliance Assurance Monitoring (CAM)

(f) 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 proposed revision:

- (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 modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the MSOP Revision Section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

  The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new batch coffee roaster system 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) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) 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.
  - (2) 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.
- (f) 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.
- (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.

Page 8 of 12 TSD for MSOP SPR No. 157-34158-00468

#### New Coffee Roasting Process (S5)

- (i) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heat)
  Pursuant to 326 IAC 6-2, the coffee roasting process (S5) is not subject to this rule, because the thermal afterburner (S7) and roaster burner (B3) are not sources of indirect heat.
- (j) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
  Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the coffee roasting process (S5), since it has potential particulate emissions greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the coffee roasting process (S5) shall not exceed 4.10 pounds per hour when operating at a process weight rate of 1 ton 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

The roaster cyclone (CE4) shall be in operation at all times the coffee roasting operation is in operation, in order to comply with this limit.

(k) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) The unlimited VOC potential emissions from the coffee roasting process process (S5) is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

#### New Coffee Cooler Process (S6)

(I) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the coffee cooler process (S6), since it has potential particulate emissions greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the coffee cooler process (S6) shall not exceed 4.10 pounds per hour when operating at a process weight rate of 1 ton 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 cooler/stoner cyclone (CE6) is not needed to comply with this limit.

#### Modified Green Coffee Bean Storage Unit

(m) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the green coffee bean storage unit, since it has potential particulate emissions greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the green coffee bean storage unit shall not exceed 6.52 pounds per hour when operating at a process weight rate of 2 tons per hour. The pound per hour limitation was calculated with the following equation: Lafayette, Indiana Permit Reviewer: Brian Wright

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  $E = \text{rate of emission in pounds per hour and}$   
 $P = \text{process weight rate in tons per hour}$ 

Based on calculations, a control device is not needed to comply with this limit.

#### Modified Roasted Coffee Bean Storage Unit

(n) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the roasted coffee bean storage unit, since it has potential particulate emissions greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the roasted coffee bean storage unit shall not exceed 6.52 pounds per hour when operating at a process weight rate of 2 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, a control device is not needed to comply with this limit.

#### Modified Packaging Unit

(o) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the packaging unit, since it has potential particulate emissions greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the packaging unit shall not exceed 6.52 pounds per hour when operating at a process weight rate of 2 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, a control device is not needed to comply with this limit.

#### Compliance Determination, Monitoring and Testing Requirements

The new and modified units will comply with the same compliance requirements contained in the permit for the existing units. The other existing units shall continue to comply with the applicable requirements and permit conditions as contained in MSOP No: M157-32506-00468, issued on January 22, 2013.

#### **Proposed Changes**

The following changes listed below are due to the proposed revision. Deleted language appears as strikethrough text and new language appears as **bold** text:

Copper Moon Coffee Page 10 of 12 Lafayette, Indiana TSD for MSOP SPR No. 157-34158-00468

Lafayette, Indiana Permit Reviewer: Brian Wright

1. Section A.2 has been amended as follows in order to incorporate the new units:

A.2 Emission Units and Pollution Control Equipment Summary

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

\*\*\*\*\*

- (c) One (1) green coffee bean storage unit, with an associated feed bin for loading the beans into the roaster, approved for construction in 2013, **approved for modification in 2014**, identified as unit S4, with a maximum throughput of **42** ton**s** per hour.
- (d) One (1) roasted coffee bean storage unit, approved for construction in 2013, **approved for modification in 2014**, with a maximum throughput of **42** ton**s** per hour.
- (e) One (1) packaging unit, approved for construction in 2013, **approved for modification in 2014**, with a maximum throughput of **42** ton**s** per hour.
- (f) One (1) coffee roasting process, approved for construction in 2014, identified as unit S5, with a maximum throughput of 1 ton per hour of green coffee beans, consisting of the following units:
  - (1) One (1) natural gas fired roaster, approved for construction in 2014, identified as unit B3, with a maximum capacity of 1.65 MMBtu/hr, and exhausting to the thermal afterburner unit and the roaster cyclone.
  - (2) One (1) voluntary natural gas fired thermal afterburner, approved for construction in 2014, identified as unit S7, used for pollution control, with a maximum heat capacity of 3 MMBtu/hr, and exhausting to Stack 3.
  - (3) One (1) cyclone, approved for construction 2014, identified as roaster cyclone CE4, used for particulate control, and exhausting to the roaster unit.
- (g) One (1) coffee cooling process, approved for construction in 2014, identified as unit S6, used for the purpose of cooling the beans while separating out any foreign materials, with a maximum throughput of 1 ton per hour of roasted coffee beans, consisting of the following units:
  - (1) One (1) cooler/stoner unit, approved for construction in 2014, used for air cooling the beans while separating out foreign materials, and exhausting to the cooler/stoner cyclone.
  - (2) One (1) stoner hopper, approved for construction in 2014, used for loading the roasted beans into the storage area, and exhausting to the cooler/stoner cyclone.
  - One (1) cyclone, approved for construction in 2014, identified as cooler/stoner cyclone CE6, and exhausting to Stack 4.
- 2. Section D.1 has been amended as follows:

#### SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:** 

\*\*\*\*

(c) One (1) green coffee bean storage unit, with an associated feed bin for loading the beans into the roaster, approved for construction in 2013, **approved for modification in 2014,** identified as unit S4, with a maximum throughput of **42** ton**s** per hour.

- (d) One (1) roasted coffee bean storage unit, approved for construction in 2013, **approved for modification in 2014**, with a maximum throughput of **42** ton**s** per hour.
- (e) One (1) packaging unit, approved for construction in 2013, **approved for modification in 2014**, with a maximum throughput of **42** ton**s** per hour.
- (f) One (1) coffee roasting process, approved for construction in 2014, identified as unit S5, with a maximum throughput of 1 ton per hour of green coffee beans, consisting of the following units:
  - (1) One (1) natural gas fired roaster, approved for construction in 2014, identified as unit B3, with a maximum capacity of 1.65 MMBtu/hr, and exhausting to the thermal afterburner unit and the roaster cyclone.
  - (2) One (1) voluntary natural gas fired thermal afterburner, approved for construction in 2014, identified as unit S7, used for pollution control, with a maximum heat capacity of 3 MMBtu/hr, and exhausting to Stack 3.
  - One (1) cyclone, approved for construction 2014, identified as roaster cyclone CE4, used for particulate control, and exhausting to the roaster unit.
- (g) One (1) coffee cooling process, approved for construction in 2014, identified as unit S6, used for the purpose of cooling the beans while separating out any foreign materials, with a maximum throughput of 1 ton per hour of roasted coffee beans, consisting of the following units:
  - (1) One (1) cooler/stoner unit, approved for construction in 2014, used for air cooling the beans while separating out foreign materials, and exhausting to the cooler/stoner cyclone.
  - (2) One (1) stoner hopper, approved for construction in 2014, used for loading the roasted beans into the storage area, and exhausting to the cooler/stoner cyclone.
  - (3) One (1) cyclone, approved for construction in 2014, identified as cooler/stoner cyclone CE6, and exhausting to Stack 4.

\*\*\*\*

#### D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limits listed in the table below:

Unit Description	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)		
Coffee Roasting Process (S1)	1	4.1		
Coffee Cooler Process (S3)	1	4.1		
Green Coffee Bean Storage Unit (S4)	<b>4 2</b>	4 <del>.1</del> 6.52		
Roasted Coffee Bean Storage Unit	<b>4 2</b>	4 <del>.1</del> 6.52		
Packaging <b>Unit</b>	12	4.1 6.52		
Coffee Roasting Process (S5)	1	4.1		
Coffee Cooler Process (S6)	1	4.1		

Lafavette, Indiana Permit Reviewer: Brian Wright

## Particulate Control

In order to comply with Condition D.1.1, the roaster cyclones (CE1 and CE4) for particulate control shall be in operation and control emissions from the coffee roasting processes at all times the coffee roasting process facilityies is are in operation.

## **Additional Changes**

IDEM, OAQ made additional revisions to the permit as described below to provide clarification regarding the requirements of these conditions.

1. IDEM has revised Section C - Instrument Specifications to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.

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

- When required by any condition of this permit, an analog instrument used to measure a (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.
- The Permittee may request that the IDEM, OAQ approve the use of an instrument that (b) 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.

## **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 February 7, 2014.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed MSOP Significant Permit Revision No. 157-34158-00468. The staff recommends to the Commissioner that this MSOP Significant Permit Revision be approved.

## **IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Brian Wright 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) 234-6544or toll free at 1-800-451-6027 extension 4-6544.
- (b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/
- For additional information about air permits and how the public and interested parties can (c) participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

#### Appendix A: Emissions Calculations Emission Summary

Company Name: Copper Moon Coffee

Source Address: 1759 Veterans Memorial Pkwy East, Lafayette, Indiana 47905

Permit Number: 157-34158-00468 Reviewer: Brian Wright

#### **Uncontrolled Emissions**

	Emission Units	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	voc	СО	GHGs as CO2e	Total HAPs	Highest	Single HAP
Existing Units	Natural Gas Combustion	0.04	0.15	0.15	0.01	2.00	0.11	1.68	2,411	0.04	0.04	Hexane
Existing Units	Coffee Roasting Process	18.40	18.40	18.40	0.00	0.00	3.77	48.18	788	0.00	0.00	
Existing Units	Cooler/Stoner/Hopper	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0	0.00	0.00	
Modified Units	Green Coffee Bean Storage Unit*	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0	0.00	0.00	
Modified Units	Roasted Coffee Bean Storage Unit*	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0	0.00	0.00	
Modified Units	Packaging Unit*	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0	0.00	0.00	
New Units	Natural Gas Combustion	0.04	0.15	0.15	0.01	2.00	0.11	1.68	2,411	0.04	0.04	Hexane
New Units	Coffee Roasting Process	18.40	18.40	18.40	0.00	0.00	3.77	48.18	788	0.00	0.00	
New Units	Cooler/Stoner/Hopper	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0	0.00	0.00	
•	Total	78.22	78.44	78.44	0.02	3.99	7.75	99.71	6,398	0.08	0.07	Hexane

#### Controlled Emissions\*\*

	Emission Units	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	voc	СО	GHGs as CO2e	Total HAPs	Highest	Single HAP
Existing Units	Natural Gas Combustion	0.04	0.15	0.15	0.01	2.00	0.11	1.68	2,410	0.04	0.04	Hexane
Existing Units	Coffee Roasting Process	0.53	0.53	0.53	0.00	0.00	0.05	0.55	788	0.00	0.00	
Existing Units	Cooler/Stoner/Hopper	0.26	0.26	0.26	0.00	0.00	0.00	0.00	0	0.00	0.00	
Modified Units	Green Coffee Bean Storage Unit	0.52	0.52	0.52	0.00	0.00	0.00	0.00	0	0.00	0.00	
Modified Units	Roasted Coffee Bean Storage Unit	0.52	0.52	0.52	0.00	0.00	0.00	0.00	0	0.00	0.00	
Modified Units	Packaging Unit	0.52	0.52	0.52	0.00	0.00	0.00	0.00	0	0.00	0.00	
New Units	Natural Gas Combustion	0.04	0.15	0.15	0.01	2.00	0.11	1.68	2,410	0.04	0.04	Hexane
New Units	Coffee Roasting Process	0.53	0.53	0.53	0.00	0.00	0.05	0.55	788	0.00	0.00	
New Units	Cooler/Stoner/Hopper	0.26	0.26	0.26	0.00	0.00	0.00	0.00	0	0.00	0.00	
	Total	3.19	3.42	3.42	0.02	3.99	0.31	4.45	6,398	0.08	0.07	Hexane

<sup>\*</sup>The storage and packaging units were previously limited by the maximum throughput of the coffee roaster. With the addition of the new roaster, the throughput of these units has doubled.

<sup>\*\*</sup>For purposes of determining Part 70 and PSD applicability, uncontrolled emission will be considered

## Appendix A: Emissions Calculations Modification

Company Name: Copper Moon Coffee

Source Address: 1759 Veterans Memorial Pkwy East, Lafayette, Indiana 47905

Permit Number: 157-34158-00468 Reviewer: Brian Wright

#### **New Units Uncontrolled Emissions**

Emission Units	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	voc	СО	GHGs as CO2e	Total HAPs	Highest	Single HAP
Natural Gas Combustion	0.04	0.15	0.15	0.01	2.00	0.11	1.68	2,411	0.04	0.04	Hexane
Coffee Roasting Process	18.40	18.40	18.40	0.00	0.00	3.77	48.18	788	0.00	0.00	
Cooler/Stoner/Hopper	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0	0.00	0.00	
Total	23.60	23.72	23.72	0.01	2.00	3.88	49.86	3,199	0.04	0.04	Hexane

#### **Modified Units**

Emissions Unit	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	voc	СО	GHGs as CO2e	Total HAPs	Highest Single HAP
	LIAI	FIVITO	FIVIZ.3	302	NOX	VOC	CO	0020	Total III/a o	nighest Single HAP
Previous Green Coffee Bean										
Storage Unit*	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Previous Roasted Coffee										
Bean Storage Unit*	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Previous Packaging Unit*	5.17	5.17	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Modified Green Coffee Bean										
Storage Unit	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Modified Roasted Coffee										
Bean Storage Unit	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Modified Packaging Unit	10.34	10.34	10.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Change in PTE	15.51	15.51	15.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total PTE of the											
Modification	39.11	39.22	39.22	0.01	2.00	3.88	49.86	3199	0.04	0.04	Hexane

<sup>\*</sup>The storage and packaging units were previously limited by the maximum throughput of the coffee roaster. With the addition of the new roaster, the throughput of these units has doubled.

#### Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100 Existing Units

Company Name: Copper Moon Coffee

Source Address: 1759 Veterans Memorial Pkwy East, Lafayette, Indiana 47905

Permit Number: 157-34158-00468 Reviewer: Brian Wright

Potential Throughput MMCF/yr

UNIT	MMBtu/hr
Roaster	1.65
Afterburner	3.00
Total	4.65

	Pollutant									
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO			
Emission Factor in lb/MMcF	1.90	7.60	7.60	0.60	100	5.50	84			
					**see below					
Potential Emission in tons/yr	0.04	0.15	0.15	1.20E-02	2.00	0.11	1.68			

<sup>\*</sup>PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

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

	HAPs - Organics									
	Benzene Dichlorobenzene Formaldehyde Hexane Toli									
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03					
Potential Emission in tons/yr	4.2E-05 2.4E-05 1.5E-03 3.6E-02 6.8E-0									

	HAPs - Metals									
Lead	Lead Cadmium Chromium Manganese Nickel									
5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03						
1.0E-05	2.2E-05	2.8E-05	7.6E-06	4.2E-05						
	5.0E-04	5.0E-04 1.1E-03	5.0E-04 1.1E-03 1.4E-03	5.0E-04 1.1E-03 1.4E-03 3.8E-04						

TOTAL 3.8E-02

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

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

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

		Greenhouse Ga	IS
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,396	0.046	0.044
Summed Potential Emissions in tons/yr		2396	
CO2e Total in tons/yr based on 11/29/2013 federal GWPs		2,410	
CO2e Total in tons/yr based on 10/30/2009 federal GWPs		2,411	

#### Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64. Emission

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

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

CO2e (tons/yr) based on 11/29/2013 federal GWPs= CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

CO2e (tons/yr) based on 10/30/2009 federal GWPs = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

PM2.5 emission factor is filterable and condensable PM2.5 combined.

#### Appendix A: Emissions Calculations Existing Coffee Roasting Process

Company Name: Copper Moon Coffee

Source Address: 1759 Veterans Memorial Pkwy East, Lafayette, Indiana 47905 Permit Number: 157-34158-00468

Permit Number: 157-34158-0046 Reviewer: Brian Wright

Coffee Roasting Process

Conee Roasting 1 100	,633								
Polluant	Maximum Capacity of Coffee Bean in Roaster <sup>1</sup> (ton/hr)	Maximum Capacity of Coffee Bean in Roaster (tons/yr)	Uncontrolled Emission Factor (lb/ton)*	Controlled Emission Factor (lb/ton)**	Uncontrolled Emissions (lb/hr)*	Uncontrolled Emissions (ton/yr)*	Control Efficiency (%) *	Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)
PM/PM10/PM2.5 <sup>2</sup>	1	8760	4.20	0.12	4.20	18.40	95.00%	0.12	0.53
VOC	1	8760	0.86	0.047	0.86	3.77	95.00%	0.05	0.21
CO	1	8760	11.00	0.55	11.00	48.18	95.00%	0.55	2.41
CO2e	1	8760	180.00	180.00	180.00	788.40	0.00%	180	788.40

Cooler/Stoner/Hopper

Coolei/Stollei/Hoppel									
Polluant	Maximum Capacity of Handling (ton/hr)	Maximum Capacity of Handling (ton/yr)	Uncontrolled Emission Factor (lb/ton)*	Controlled Emission Factor (lb/ton)**	Uncontrolled Emissions (lb/hr)*	Uncontrolled Emissions (ton/yr)*	Control Efficiency (%)*	Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)
PM/PM10/PM2.5 <sup>2</sup>	1	8760	1.18	0.059	1.18	5.17	95.00%	0.059	0.26

Green Coffee Bean Storage Unit

Green Conee Bean Storage Onit										
	Polluant	Maximum Capacity of Cooler (ton/hr)	Maximum Capacity of Cooler (ton/yr)	Uncontrolled Emission Factor (lb/ton)*	Controlled Emission Factor (lb/ton)**	Uncontrolled Emissions (lb/hr)*	Uncontrolled Emissions (ton/yr)*	Control Efficiency (%) *	Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)
	PM/PM10/PM2.5	2	17520	1.18	0.059	2.36	10.34	95.00%	0.118	0.52

Roasted Coffee Bean Storage Unit

Roasteu Corree Deari	Storage Office								
Polluant	Maximum Capacity of Handling (ton/hr)	Maximum Capacity of Handling (ton/yr)	Uncontrolled Emission Factor (lb/ton)*	Controlled Emission Factor (lb/ton)**	Uncontrolled Emissions (lb/hr)*	Uncontrolled Emissions (ton/yr)*	Control Efficiency (%)*	Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)
PM/PM10/PM2.5 <sup>2</sup>	2	8760	1.18	0.059	2.36	10.34	95.00%	0.118	0.52

Packaging Unit

Polluant	Maximum Capacity of Handling (ton/hr)	Maximum Capacity of Handling (ton/yr)	Uncontrolled Emission Factor (lb/ton)*	Controlled Emission Factor (lb/ton)**	Uncontrolled Emissions (lb/hr)*	Uncontrolled Emissions (ton/yr)*	Control Efficiency (%)*	Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)
PM/PM10/PM2.5 <sup>2</sup>	2	8760	1.18	0.059	2.36	10.34	95.00%	0.118	0.52

<sup>&</sup>lt;sup>1</sup> 500 lbs green coffee/batch X 4 batcher/hr X1/2000 lbs/ton = 1.0 ton/hr

Actual hours of operation are 10 hr/day X 5 days/wk X 52 wks/yr = 2600 hr/yr

#### METHODOLOGY

Controlled PTE Emission (lbs/hour) = Max. Capacity of Roaster (ton/hour) \* Controlled Emission Factor (lb/ton) Controlled PTE of Emissions (tons/year) = Max.Throughput Rate (ton/hour) \* Controlled Emission Factor (lb/ton) \* 8760 hours/year \* 1 ton/2000 lbs

Uncontrolled PTE Emission (lbs/hour) = Max. Capacity of Roaster (ton/hr) \* Uncontrolled Emission Factor (lb/ton) / (1-Control Efficiency)
Uncontrolled PTE Emission (ton/year) = Max. Capacity of Roaster (ton/hr) \* UncontrolledEmission Factor (lb/ton) / (1-Control Efficiency) \* 8760 hours/year / 1 ton/2000 lbs

<sup>&</sup>lt;sup>2</sup> PM is Filterable PM, no data for Condensible PM

<sup>\*</sup> Uncontrolled emission factor is from the Bay Area Air Quality Management District

<sup>\*\*</sup>Controlled emission factor is taken from AP-42 Chapter 9.12, 9/95

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

**New Units** 

Company Name: Copper Moon Coffee

Source Address: 1759 Veterans Memorial Pkwy East, Lafayette, Indiana 47905

Permit Number: 157-34158-00468 Reviewer: Brian Wright

Heat Input Capacity HHV MMBtu/hr mmBtu mmscf 4.65 1020

Ρ	otential Throughput MMCF/yr	
	39.94	

UNIT	MMBtu/hr
Roaster	1.65
Afterburner	3.00
Total	4.65

Pollutant								
PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO		
1.90	7.60	7.60	0.60	100	5.50	84		
				**see below				
0.04	0.15	0.15	1.20E-02	2.00	0.11	1.68		
	1.90	1.90 7.60	1.90 7.60 7.60	PM* PM10* direct PM2.5* SO2 1.90 7.60 7.60 0.60	PM* PM10* direct PM2.5* SO2 NOx 1.90 7.60 7.60 0.60 100 **see below	PM* PM10* direct PM2.5* SO2 NOX VOC 1.90 7.60 7.60 0.60 100 5.50 **see below		

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

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

	HAPs - Organics							
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene			
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03			
Potential Emission in tons/yr	4.2E-05	2.4E-05	1.5E-03	3.6E-02	6.8E-05			

		HAPs - Metals						
	Lead	Cadmium	Chromium	Manganese	Nickel			
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03			
Potential Emission in tons/yr	1.0E-05	2.2E-05	2.8E-05	7.6E-06	4.2E-05			

TOTAL 3.8E-02

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

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

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

	Greenhouse Gas					
	CO2	CH4	N2O			
Emission Factor in lb/MMcf	120,000	2.3	2.2			
Potential Emission in tons/yr	2,396	0.046	0.044			
Summed Potential Emissions in tons/yr	2396					
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	2,410					
CO2e Total in tons/yr based on 10/30/2009 federal GWPs		2,411				

#### Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

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

CO2e (tons/yr) based on 11/29/2013 federal GWPs= CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

CO2e (tons/yr) based on 10/30/2009 federal GWPs = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

PM2.5 emission factor is filterable and condensable PM2.5 combined.

#### Appendix A: Emissions Calculations New Coffee Roasting Process

Company Name: Copper Moon Coffee

Source Address: 1759 Veterans Memorial Pkwy East, Lafayette, Indiana 47905 Permit Number: 157-34158-00468

Permit Number: 157-34158-0046 Reviewer: Brian Wright

#### Coffee Roasting Process

Polluant	Maximum Capacity of Coffee Bean in Roaster <sup>1</sup> (ton/hr)	Maximum Capacity of Coffee Bean in Roaster (tons/yr)	Uncontrolled Emission Factor (lb/ton)*	Controlled Emission Factor (lb/ton)**	Uncontrolled Emissions (lb/hr)*	Uncontrolled Emissions (ton/yr)*	Control Efficiency (%) *	Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)
PM/PM10/PM2.5 <sup>2</sup>	1	8760	4.20	0.12	4.20	18.40	95.00%	0.12	0.53
VOC	1	8760	0.86	0.047	0.86	3.77	95.00%	0.05	0.21
CO	1	8760	11.00	0.55	11.00	48.18	95.00%	0.55	2.41
CO2e	1	8760	180.00	180.00	180.00	788.40	0.00%	180	788.40

Cooler/Stoner/Hopper

Occidentation to pper										
Polluant	Maximum Capacity of Handling (ton/hr)	Maximum Capacity of Handling (ton/yr)	Uncontrolled Emission Factor (lb/ton)*	Controlled Emission Factor (lb/ton)**	Uncontrolled Emissions (lb/hr)*	Uncontrolled Emissions (ton/yr)*	Control Efficiency (%)*	Controlled Emissions (lb/hr)	Controlled Emissions (ton/yr)	
PM/PM10/PM2.5 <sup>2</sup>	1	8760	1.18	0.059	1.18	5.17	95.00%	0.059	0.26	İ

<sup>&</sup>lt;sup>1</sup> 500 lbs green coffee/batch X 4 batcher/hr X1/2000 lbs/ton = 1.0 ton/hr

#### METHODOLOGY

Controlled PTE Emission (lbs/hour) = Max. Capacity of Roaster (ton/hour) \* Controlled Emission Factor (lb/ton) \* Controlled PTE of Emissions (tons/year) = Max.Throughput Rate (ton/hour) \* Controlled Emission Factor (lb/ton) \* 8760 hours/year \* 1 ton/2000 lbs

Uncontrolled PTE Emission (lbs/hour) = Max. Capacity of Roaster (ton/hr) \* Uncontrolled Emission Factor (lb/ton) / (1-Control Efficiency)
Uncontrolled PTE Emission (ton/year) = Max. Capacity of Roaster (ton/hr) \* UncontrolledEmission Factor (lb/ton) / (1-Control Efficiency) \* 8760 hours/year / 1 ton/2000 lbs

Actual hours of operation are 10 hr/day X 5 days/wk X 52 wks/yr = 2600 hr/yr

<sup>&</sup>lt;sup>2</sup> PM is Filterable PM, no data for Condensible PM

<sup>\*</sup> Uncontrolled emission factor is from the Bay Area Air Quality Management District

<sup>\*\*</sup>Controled emission factor is taken from AP-42 Chapter 9.12, 9/95



We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

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

Michael R. Pence Governor

Thomas W. Easterly

Commissioner

March 18, 2014

Mr Glenn Hegewald Copper Moon Coffee 1503 Veterans Memorial Pkwy E Lafayette, IN 47905

Re: Public Notice

Copper Moon Coffee

Permit Level: MSOP - Significant Permit Revision

Permit Number: 157 - 34158 - 00468

## Dear Mr Hegewald:

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

The Office of Air Quality (OAQ) has submitted the draft permit package to the Tippecanoe County Public Library, 627 South Street in Lafayette 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.

You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper. The OAQ has requested that the Journal & Courier in Lafayette, In publish this notice no later than March 21, 2014.

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 Brian Wright, 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 4-6544 or dial (317) 234-6544.

Sincerely,

Len Pogost

Len Pogost Permits Branch Office of Air Quality

Enclosures PN Applicant Cover letter. dot 3/27/08







We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

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

Michael R. Pence Governor

Thomas W. Easterly

Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

March 18, 2014

Journal & Courier Attn: Classifieds 217 North Sixth Street Lafayette, Indiana 47901-1420

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Copper Moon Coffee, Tippecanoe 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 March 21, 2014.

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 Len Pogost at 800-451-6027 and ask for extension 3-2803 or dial 317-233-2803.

Sincerely,

Len Pogost

Len Pogost Permit Branch Office of Air Quality

Permit Level: MSOP - Significant Permit Revision

Permit Number: 157 - 34158 - 00468

Enclosure PN Newspaper.dot 6/13/2013







We Protect Hoosiers and Our Environment.

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

Michael R. Pence Governor

Thomas W. Easterly

Commissioner

March 18, 2014

To: Tippecanoe County Public Library 627 South Street Lafayette IN

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: Copper Moon Coffee Permit Number: 157 - 34158 - 00468

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 Smiddie-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.

Enclosures PN Library.dot 6/13/2013







We Protect Hoosiers and Our Environment.

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

Michael R. Pence Governor

Thomas W. Easterly

Commissioner

#### **Notice of Public Comment**

March 18, 2014 Copper Moon Coffee 157 - 34158 - 00468

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.

Enclosure PN AAA Cover.dot 6/13/13





# Mail Code 61-53

IDEM Staff	LPOGOST 3/18/	/2014		
	Copper Moon Co	offee 157 - 34158 - 00468 draft/	AFFIX STAMP	
Name and		Indiana Department of Environmental	Type of Mail:	HERE IF
address of		Management		USED AS
Sender		Office of Air Quality – Permits Branch	CERTIFICATE OF	CERTIFICATE
	•	100 N. Senate	MAILING ONLY	OF MAILING
		Indianapolis, IN 46204	MAILING ONE	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		Glenn Hegewald Copper Moon Coffee 1503 Veterans Memorial Pkwy E Lafayette IN 4	7905 (Sourc	e CAATS)							
2		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 (Local Official)									
3		Tippecanoe County Health Department 20 N. 3rd St Lafayette IN 47901-1211 (Health Department)									
4		Lafayette City Council and Mayors Office 20 North 6th Street Lafayette IN 47901-1411 (Local Official)									
5		Tippecanoe County Public Library 627 South Street Lafayette IN 47901-1470 (Library)									
6		Ms. Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 (Affected Party)									
7		Mrs. Phyllis Owens 3600 Cypress Lane Lafayette IN 47905 (Affected Party)									
8		Mr. Jerry White 4317 Amesbury Drive West Lafayette IN 47906 (Affected Party)									
9		Ms. Rose Filley 5839 Lookout Drive West Lafayette IN 47906 (Affected Party)									
10		Mr. William Cramer 128 Seminole Drive West Lafayette IN 47906 (Affected Party)									
11		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)									
12		West Lafayette City Council and Mayors Office 609 W. Navajo West Lafayette IN 47	906 (Local C	Official)							
13		Steve Schlichter 1550 Seneca Lane San Mateo CA 94402 (Consultant)									
14											
15											

Total talling	ber of Pieces at Post Office  Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50,000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <i>Domestic Mail Manual</i> R900, S913, and S921 for limitations of coverage on inured and COD mail. See <i>International Mail Manual</i> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---------------	--	---