INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

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

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a Significant Modification to a Part 70 Operating Permit

for Maplehurst Bakeries, Inc. in Hendricks County

Significant Source Modification No. 063-31357-00031 Significant Permit Modification No. 063-31381-00031

The Indiana Department of Environmental Management (IDEM) has received an application from Maplehurst Bakeries, Inc. located at 50 Maplehurst Drive, Brownsburg, Indiana for a significant modification of its Part 70 Operating Permit issued on October 2, 2009. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Maplehurst Bakeries, Inc. to make certain changes at its existing source. Maplehurst Bakeries, Inc. has applied for the installation of a donut production line, identified as Moline VIII, and two dry ingredient scale hoppers/mixers, identified as EU73 and EU74; the modification of the dry ingredient conveyance system for the existing silos, use bins, and hoppers, allowing for increased throughput due to the new production line; the inclusion of the existing proof boxes, identified as Proof1 through Proof6; and the inclusion of several existing insignificant activities. The application also includes the addition of separate dust collector units for five existing use bins as well as the addition of a VOC BACT limit for existing donut production line Moline VI.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (i.e. changes that add or modify synthetic minor emission limits). 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.

IDEM is aware that the proof boxes for production lines I through VI may have been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This draft significant source modification and significant permit modification contain provisions to bring unpermitted equipment into compliance with construction and operation permit rules.

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

Brownsburg Public Library 450 South Jefferson Street Brownsburg, IN 46112

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 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

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

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit numbers 063-31357-00031 and 063-31381-00031 in all correspondence.

Comments should be sent to:

John Haney IDEM, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251 (800) 451-6027, ask for extension 4-5328 Or dial directly: (317) 234-5328 Fax: (317) 232-6749 attn: John Haney

E-mail: jhaney@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: www.idem.in.gov.

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 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions please contact John Haney of my staff at the above address.

Matthew Stuckey, Branch Chief

Permits Branch
Office of Air Quality

MS/jeh



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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DRAFT

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

Thomas W. Easterly Commissioner

Mr. Greg Taylor Maplehurst Bakeries, Inc. 50 Maplehurst Drive Brownsburg, IN 46112

Re: 063-31357-00031

Significant Source Modification to: Part 70 Permit No.: T063-28023-00031

Dear Mr. Taylor:

Maplehurst Bakeries, Inc. was issued Part 70 Operating Permit T063-28023-00031 on October 2, 2009 for a commercial bakery operation. An application to modify the source was received on January 13, 2012 for the installation of a donut production line, identified as Moline VIII, and two dry ingredient scale hoppers/mixers, identified as EU73 and EU74; the modification of the dry ingredient conveyance system for the existing silos, use bins, and hoppers, allowing for increased throughput due to the new production line; the inclusion of the existing proof boxes, identified as Proof1 through Proof6; and the inclusion of several existing insignificant activities. The application also includes the addition of separate dust collector units for five existing use bins as well as the addition of a VOC BACT limit for existing donut production line Moline VI. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

- One (1) dry ingredient storage and conveyance system, including, but not limited to, (a) pneumatic conveyance process equipment and piping, storage silos, use bins, weigh scale hoppers, ingredient mixers, transfer equipment, other process equipment and piping, and associated pollution control equipment, installed in April 2002 and approved in 2012 for modification, with a maximum throughput of 20,130 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
 - Five (5) use bins, identified as emission units EU06, EU07, EU10, EU11, and (5) EU14, installed in 2002 and approved in 2012 for modification, each equipped with one (1) dust collector unit for control of particulate matter emissions. exhausting inside.
 - (8)Two (2) dry ingredient scale hoppers/mixers, identified as EU73 and EU74, approved in 2012 for construction, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.
- (b) One (1) donut production line, identified as Moline I, installed in July 1993, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - One (1) proof box, identified as Proof1. (1)



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Maplehurst Baeries, Inc. Brownsburg, Indiana Permit Reviewer: John Haney

(c) One (1) donut production line, identified as Moline II, installed in December 1996, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:

- (1) One (1) proof box, identified as Proof2.
- (d) One (1) donut production line, identified as Moline III, installed in December 1998, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof3.
- (e) One (1) donut production line, identified as Moline IV, installed in February 2001, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof4.
- (f) One (1) donut production line, identified as Moline V, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof5.
- (g) One (1) donut production line, identified as Moline VI, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof6.
- (i) One (1) donut production line, identified as Moline VIII, approved in 2012 for construction, with a maximum production rate of 4,537 pounds of dough per hour, consisting of the following:
 - (1) One (1) proof box, identified as Proof8.
 - (2) One (1) electric fryer, identified as Fryer8, exhausting to Stack 11.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

- 1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to <u>any</u> proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

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Maplehurst Baeries, Inc. Brownsburg, Indiana Permit Reviewer: John Haney

Effective Date of the Permit
 Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

- 4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval 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
- 5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
- 6. Pursuant to 326 IAC 2-7-10.5(I) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(I)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, and ask for John Haney or extension 4-5328, or dial (317) 234-5328.

Sincerely,

Jenny Acker, Section Chief Permits Branch Office of Air Quality

Attachments JA/jeh

cc: File – Hendricks County U.S. EPA, Region V

Hendricks County Health Department Compliance and Enforcement Branch

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT We Protect Hoosiers and Our Environment.

IDEM

Mitchell E. Daniels Jr. Governor

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

Thomas W. Easterly Commissioner

Significant Source Modification to a Part 70 Source OFFICE OF AIR QUALITY

Maplehurst Bakeries, Inc. 50 Maplehurst Drive Brownsburg, Indiana 46112

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Significant Source Modification No.: 063-31357-00031					
Issued by:	Issuance Date:				
Jenny Acker, Section Chief Permits Branch Office of Air Quality					



Maplehurst Bakeries, Inc.
Brownsburg, Indiana
Permit Reviewer: Jean Boling

1st Significant Source Modification No. 063-31357-00031
Modified by: John Haney
DRAFT

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary commercial bakery operation.

Source Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112 Mailing Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112

General Source Phone Number: 317-858-9000

SIC Code: 2051 County Location: Hendricks

Source Location Status: Nonattainment for PM_{2.5} standard

Attainment for all other criteria pollutants

Source Status: Part 70 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 [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

- (a) One (1) dry ingredient storage and conveyance system, including, but not limited to, pneumatic conveyance process equipment and piping, storage silos, use bins, weigh scale hoppers, ingredient mixers, transfer equipment, other process equipment and piping, and associated pollution control equipment, installed in April 2002 and approved in 2012 for modification, with a maximum throughput of 20,130 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
 - (1) Two (2) flour storage silos, identified as emission units EU01 and EU02, installed in December 1995 and May 2001, respectively, each equipped with a baghouse for control of particulate matter emissions, exhausting outside.
 - (2) One (1) flour storage silo, identified as emission unit EU03, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
 - (3) One (1) sugar storage silo, identified as emission unit EU04, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
 - (4) One (1) dextrose storage silo, identified as emission unit EU05, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
 - (5) Five (5) use bins, identified as emission units EU06, EU07, EU10, EU11, and EU14, installed in 2002 and approved in 2012 for modification, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.

- (6) Eight (8) use bins, identified as emission units EU08, EU9, EU12, EU13, and EU15 through EU18, installed in 2002, each tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting inside.
- (7) Fifteen (15) dry ingredient scale hoppers, identified as emission units EU19 through EU33, installed in 2002, each equipped with one (1) filter unit for control of particulate matter emissions, exhausting inside.
- (8) Two (2) dry ingredient scale hoppers/mixers, identified as EU73 and EU74, approved in 2012 for construction, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.
- (b) One (1) donut production line, identified as Moline I, installed in July 1993, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof1.
 - One (1) natural gas-fired fryer, identified as Fryer1, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 1.
- (c) One (1) donut production line, identified as Moline II, installed in December 1996, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof2.
 - One (1) natural gas-fired fryer, identified as Fryer2, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 2.
- (d) One (1) donut production line, identified as Moline III, installed in December 1998, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof3.
 - One (1) natural gas-fired fryer, identified as Fryer3, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 3.
- (e) One (1) donut production line, identified as Moline IV, installed in February 2001, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof4.
 - One (1) natural gas-fired fryer, identified as Fryer4, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 7.
- (f) One (1) donut production line, identified as Moline V, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof5.
 - One (1) natural gas-fired fryer, identified as Fryer5, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 5.

- (g) One (1) donut production line, identified as Moline VI, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof6.
 - One (1) natural gas-fired fryer, identified as Fryer6, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 4.
- (h) One (1) frozen donut production line, identified as Moline VII, installed in October 2008, with a maximum production rate of 3,000 pounds per hour of premix dough/cake batter and water, consisting of the following:
 - (1) One (1) natural gas-fired fryer, identified as Fryer7, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stacks 9 and 10.
 - (2) One (1) shock freezer spiral conveyor.
- (i) One (1) donut production line, identified as Moline VIII, approved in 2012 for construction, with a maximum production rate of 4,537 pounds of dough per hour, consisting of the following:
 - (1) One (1) proof box, identified as Proof8.
 - (2) One (1) electric fryer, identified as Fryer8, exhausting to Stack 11.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities as defined in 326 IAC 2-7-1(21):

- (a) Natural gas fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including:
 - (1) One (1) natural gas-fired boiler, identified as Ajax, installed in September 2000, with a rated capacity of 6.3 MMBtu per hour, exhausting to Stack 6. [326 IAC 6-2]
 - One (1) natural gas-fired boiler, identified as Ajax Boiler #2, installed in June 2003, with a rated capacity of 6.3 MMBtu per hour, exhausting to Stack 8. [326 IAC 6-2]
 - (3) Five (5) natural gas-fired space heaters, identified as EU34, EU35, EU36, EU37 and EU40, with two (2) space heaters having a heat input capacity of 0.040 MMBtu per hour and three (3) space heaters having a heat input capacity of 0.030 MMBtu per hour, each installed in June 2005, except EU37 which was installed in October 1994.
 - (4) Two (2) natural gas-fired revert ovens, identified as EU38 and EU72, installed in June 2005, with heat input capacities of 0.170 MMBtu per hour and 0.177 MMBtu per hour, respectively.
 - (5) Two (2) natural gas-fired water heaters, identified as EU39 and EU48, installed in June 2005, with heat input capacities of 0.199 MMBtu per hour and 0.370 MMBtu per hour, respectively. [326 IAC 6-2]
 - (6) Eight (8) natural gas-fired makeup air units, identified as EU41 through EU47 and EU49, each installed in June 2005, except EU47 which was installed in 2001, with heat input capacities that range from 0.225 MMBtu per hour to 4.125 MMBtu

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per hour.

- (7) Twenty two (22) natural gas-fired rooftop heating/air conditioning units, identified as EU50 through EU71, installed between March 1994 and October 2008, with heat input capacities that range from 0.199 MMBtu per hour to 0.370 MMBtu per hour.
- (b) Combustion source flame safety purging on startup.
- (c) Any operation using aqueous solutions containing less than one percent (1%) by weight of VOCs excluding HAPs, including two (2) degreasing operations.
- (d) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (e) Stationary fire pump engines, including one (1) electric fire pump engine.
- (f) A laboratory, as defined in 326 IAC 2-7-1(21)(H).
- (g) Activities with potential emissions within any of the following thresholds: equal to or less than 5 pounds per hour or 25 pounds per day PM₁₀, SO₂, or NO_x; equal to or less than 3 pounds per hour or 15 pounds per day VOC; equal to or less than 25 pounds per day CO; equal to or less than 0.6 tons per year or 3.29 pounds per day Pb; or greater than 1 pound per day but less than 5 pounds per day or 1 ton per year single HAP (and not regulated by a NESHAP):
 - (1) One (1) soy oil tank, with a capacity of 8,000 gallons.
 - (2) One (1) shortening tank, with a capacity of 10,000 gallons.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 Applicability).

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SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

- (a) This permit, T063-28023-00031, 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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

B.5 Severability [326 IAC 2-7-5(5)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 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

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within 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:
 - Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;

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- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered:

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,

Compliance and Enforcement Branch), or

Telephone Number: 317-233-0178 (ask for Compliance and Enforcement

Branch)

Facsimile Number: 317-233-6865

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

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report. Any emergencies that have been previously reported pursuant to paragraph (b)(5) of this condition and certified by a "responsible official " need only referenced by the date of the original report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced 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 Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T063-28023-00031 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported 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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.

 [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(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 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

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(4) The Permittee notifies the:

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
 - (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
 The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
 The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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 Part 70 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 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 any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor 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, utilizes any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

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SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(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 Opacity [326 IAC 5-1]

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

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

C.3 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.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

C.5 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). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

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

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

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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Testing Requirements [326 IAC 2-7-6(1)]

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 2-7-5(1)][326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

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

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

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

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

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

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM,

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OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Quality 100 North Senate Avenue MC 61-50 IGCN 1003 Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

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

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported.

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This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and 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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) donut production line, identified as Moline I, installed in July 1993, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof1.
 - One (1) natural gas-fired fryer, identified as Fryer1, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 1.
- (c) One (1) donut production line, identified as Moline II, installed in December 1996, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof2.
 - One (1) natural gas-fired fryer, identified as Fryer2, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 2.
- (d) One (1) donut production line, identified as Moline III, installed in December 1998, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof3.
 - One (1) natural gas-fired fryer, identified as Fryer3, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 3.
- (e) One (1) donut production line, identified as Moline IV, installed in February 2001, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof4.
 - One (1) natural gas-fired fryer, identified as Fryer4, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 7.
- (f) One (1) donut production line, identified as Moline V, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof5.
 - One (1) natural gas-fired fryer, identified as Fryer5, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 5.
- (g) One (1) donut production line, identified as Moline VI, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof6.
 - One (1) natural gas-fired fryer, identified as Fryer6, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 4.

- (i) One (1) donut production line, identified as Moline VIII, approved in 2012 for construction, with a maximum production rate of 4,537 pounds of dough per hour, consisting of the following:
 - (1) One (1) proof box, identified as Proof8.
 - (2) One (1) electric fryer, identified as Fryer8, exhausting to Stack 11.

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Avoidance Limits for VOC BACT and PSD [326 IAC 8-1-6] [326 IAC 2-2]

In order to render the requirements of 326 IAC 8-1-6 and 326 IAC 2-2 not applicable, the VOC emissions attributable to proofing and fermentation for each donut production line (Moline I through Moline V) shall be limited to 24.4 tons per twelve (12) consecutive month period. Compliance with these limits, combined with the potential VOC emissions from other emission units in each bakery line, shall limit the VOC emissions from each facility to less than 25 tons per twelve (12) consecutive month period for VOC and shall limit the VOC emissions from the entire source to less than 250 tons per twelve (12) consecutive month period for VOC. This shall render the requirements of 326 IAC 8-1-6 (BACT) not applicable for Moline I through Moline V. This shall also render the requirements of 326 IAC 2-2 (PSD) not applicable for the entire source.

D.1.2 BACT Requirements (VOC) [326 IAC 8-1-6]

- (a) Pursuant to 326 IAC 8-1-6 and SSM 063-31357-00031, BACT has been determined to be the following for the donut production line identified as Moline VI:
 - (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VI (consisting of the fryer (Fryer6) and the proof box (Proof6)) shall not exceed 40.1 tons per twelve (12) consecutive month period.
 - (2) The source shall operate the proof box (Proof6) in accordance with the manufacturer's design and operating specifications.
 - (3) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof6), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (A) Weekly Cleaning Procedure:
 - (i) Remove all raw ingredients and/or product containers from the seeder area;
 - (ii) Scrape any dough from the racks and supports:
 - (iii) Scrape and sweep the proof box floor; and
 - (iv) Wet the entire floor with cleaning solvent mixture and then rinse.

- (B) Four Week Cleaning Procedure:
 - (i) Wipe off interior proof box channel rails where needed;
 - (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
 - (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.
- (b) Pursuant to 326 IAC 8-1-6 and SSM 063-31357-00031, BACT has been determined to be the following for the donut production line identified as Moline VIII:
 - (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VIII (consisting of the fryer (Fryer8) and the proof box (Proof8)) shall not exceed 60.7 tons per twelve (12) consecutive month period.
 - (2) The source shall operate the proof box (Proof8) in accordance with the manufacturer's design and operating specifications.
 - (3) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof8), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (A) Weekly Cleaning Procedure:
 - (i) Remove all raw ingredients and/or product containers from the seeder area;
 - (ii) Scrape any dough from the racks and supports;
 - (iii) Scrape and sweep the proof box floor; and
 - (iv) Wet the entire floor with cleaning solvent mixture and then rinse.
 - (B) Four Week Cleaning Procedure:
 - (i) Wipe off interior proof box channel rails where needed;
 - (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
 - (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds

Compliance with the VOC limits in Conditions D.1.1 and D.1.2 shall be determined by the following equation:

1.1 x
$$\sum_{m=1}^{12} \left(\sum_{i=1}^{n} \frac{Ei * Bi}{2000 lb / ton} \right)_{m} \le 24.40$$
 tons of VOC per twelve consecutive month period

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Where:

B_i = The amount of dough of type i produced during month m (tons/month);
 E_i = The VOC emission factor for type i dough (lb of VOC/ton of dough); and
 m = The compliance period is one (1) calendar month.

The emission factor for each type of donut dough shall be calculated using the following equation:

E = 0.95Y + 0.195ti - 0.51S - 0.86ts + 1.90

Where:

E = Pounds of VOC per ton of baked dough;

Y = Initial baker's percent of yeast; ti = Total yeast action time in hours;

S = Final (spike) baker's percent of yeast; and

ts = Spiking time in hours.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.5 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emissions limits established in Conditions D.1.1 and D.1.2.
 - The dates of the compliance period.
 - (2) The number of production hours for each bakery line operated (Moline I through Moline VI and Moline VIII) during each compliance period.
 - (3) The total amount (in lbs) of yeast used for each bakery line operated during each compliance period.
 - (4) The total amount (in lbs) of dough produced for each bakery line operated during each compliance period.
 - (5) The following information necessary to calculate the VOC emission factor for each bakery line operated during each compliance period:
 - (A) The initial baker's percent of yeast;
 - (B) The total yeast action time in hours;
 - (C) The final (spike) baker's percent of yeast; and
 - (D) The spiking time in hours.
- (b) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

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SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

- (a) Natural gas fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including:
 - (1) One (1) natural gas-fired boiler, identified as Ajax, installed in September 2000, with a rated capacity of 6.3 MMBtu per hour, exhausting to Stack 6. [326 IAC 6-2]
 - One (1) natural gas-fired boiler, identified as Ajax Boiler #2, installed in June 2003, with a rated capacity of 6.3 MMBtu per hour, exhausting to Stack 8. [326 IAC 6-2]
 - (5) Two (2) natural gas-fired water heaters, identified as EU39 and EU48, installed in June 2005, with heat input capacities of 0.199 MMBtu per hour and 0.370 MMBtu per hour, respectively. [326 IAC 6-2]

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

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

- (a) Pursuant to 326 IAC 6-2-3(d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), particulate emissions from the 6.3 MMBtu per hour boiler, identified as the Ajax Boiler, constructed after September 21, 1983, shall in no case exceed 0.60 pounds of particulate matter per million British thermal units heat input.
- (b) Pursuant to 326 IAC 6-2-3(d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), particulate emissions from the 6.3 MMBtu per hour boiler, identified as Ajax #2 Boiler, constructed after September 21, 1983, shall in no case exceed 0.56 pounds of particulate matter per million British thermal units heat input.
- (c) Pursuant to 326 IAC 6-2-3(d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), particulate emissions from the water heater, identified as EU24, with a heat input capacity of .199 MMBtu, constructed after September 21, 1983, shall in no case exceed 0.56 pounds of particulate matter per million British thermal units heat input.
- (d) Pursuant to 326 IAC 6-2-3(d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), particulate emissions from the water heater, identified as EU33, with heat input capacity of .370 MMBtu, constructed after September 21, 1983, shall in no case exceed 0.56 pounds of particulate matter per million British thermal units heat input.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) dry ingredient storage and conveyance system, including, but not limited to, pneumatic conveyance process equipment and piping, storage silos, use bins, weigh scale hoppers, ingredient mixers, transfer equipment, other process equipment and piping, and associated pollution control equipment, installed in April 2002 and approved in 2012 for modification, with a maximum throughput of 20,130 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
 - (1) Two (2) flour storage silos, identified as emission units EU01 and EU02, installed in December 1995 and May 2001, respectively, each equipped with a baghouse for control of particulate matter emissions, exhausting outside.
 - (2) One (1) flour storage silo, identified as emission unit EU03, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
 - (3) One (1) sugar storage silo, identified as emission unit EU04, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
 - (4) One (1) dextrose storage silo, identified as emission unit EU05, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
 - (5) Five (5) use bins, identified as emission units EU06, EU07, EU10, EU11, and EU14, installed in 2002 and approved in 2012 for modification, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.
 - (6) Eight (8) use bins, identified as emission units EU08, EU09, EU12, EU13, and EU15 through EU18, installed in 2002, each tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting inside.
 - (7) Fifteen (15) dry ingredient scale hoppers, identified as emission units EU19 through EU33, installed in 2002, each equipped with one (1) filter unit for control of particulate matter emissions, exhausting inside.
 - (8) Two (2) dry ingredient scale hoppers/mixers, identified as EU73 and EU74, approved in 2012 for construction, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Avoidance Limits for PSD and Nonattainment NSR [326 IAC 2-2] [326 IAC 2-1.1-5]

The PM and PM_{2.5} emissions from the following operations shall not exceed the emission limits listed in the table below:

Emission Unit	PM Limit (lb/hr)	PM _{2.5} Limit (lb/hr)
Flour Silo (EU01) - Loading	0.92	0.92
Flour Silo (EU02) - Loading	0.92	0.92
Flour Silo (EU03) - Loading	0.44	0.44
Sugar Silo (EU04) - Loading	0.44	0.44
Dextrose Silo (EU05) - Loading	0.44	0.44

Compliance with these limits, combined with the potential to emit PM and $PM_{2.5}$ from other emission units at the source, shall limit the PM emissions to less than 250 tons per twelve (12) consecutive month period and the $PM_{2.5}$ emissions to less than 100 tons per twelve (12) consecutive month period from the entire source. This shall render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.

D.3.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the dry ingredient storage and conveyance emission units shall not exceed the allowable PM emission rate as listed in the table below:

Process / Emission Unit	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lb/hr)
Flour Silos - Loading (EU01, EU02, EU03)	25 (each)	35.4 (each)
Minor Ingredient Silos - Loading (EU04, EU05)	25 (each)	35.4 (each)
Flour Silos - Conveying (EU01, EU02)	2.937 (each)	8.44 (each)
Flour Silo - Conveying (EU03)	1.397	5.13
Minor Ingredient Silos - Conveying (EU04, EU05)	1.397 (each)	5.13 (each)
Seventeen (17) Scale Hoppers (EU19-EU33, EU73, EU74)	10.065 (each)	19.3 (each)

Each pound per hour limitation was calculated with the following equation:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates 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

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D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.3.4 Particulate Control

- (a) In order to comply with Condition D.3.1, particulate from the flour silos, EU01 and EU02, shall be controlled by a baghouse at all times that each flour silo is being loaded.
- (b) In order to comply with Condition D.3.1, particulate from the flour silo (EU03) and the minor ingredient silos (EU04 and EU05) shall be controlled by the central dust collector unit at all times that any of these units are being loaded.
- (c) In the event that bag failure is observed in a multi-compartment baghouse unit, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.5 Visible Emissions Notations

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

D.3.6 Parametric Monitoring

(a) The Permittee shall monitor the pressure alarms to the 13-qty Use Bins and 17-qty Scale Hoppers continuously with the Control System over the Batching Area. When either the low pressure "No Convey Alarm" or high pressure "High Pressure Alarm Check Filters to Mixer XX" alarm is active during production, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. An active alarm during production is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

1st Significant Source Modification No. 063-31357-00031 Modified by: John Haney DRAFT

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(b) The instrument used for monitoring the pressure alarms shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.7 Broken or Failed Baghouse Detection

- (a) For a single compartment baghouse unit controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (b) Bag failure may be indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions, by an opacity violation, or by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.8 Record Keeping Requirements

To document compliance with Condition D.3.5, the Permittee shall maintain a daily record of visible emission notations required by that condition. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

Maplehurst Bakeries, Inc.

Brownsburg, Indiana

Permit Reviewer: Jean Boling

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Modified by: John Haney

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Maplehurst Bakeries, Inc.

Source Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112 Mailing Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Part 70 Permit No.: T063-28023-00031

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.
Please check what document is being certified:
□ Annual Compliance Certification Letter
□ Test Result (specify)
□ Report (specify)
□ Notification (specify)
□ Affidavit (specify)
□ Other (specify)
I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

COMPLIANCE AND ENFORCEMENT BRANCH

100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251 Phone: (317) 233-0178

Fax: (317) 233-6865

PART 70 OPERATING PERMIT EMERGENCY OCCURRENCE REPORT

Source Name: Maplehurst Bakeries, Inc.

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

Source Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112 Mailing Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Part 70 Permit No.: T063-28023-00031

This form consists of 2 pages

Page 1 of 2

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

Facility/Equipment/Operation: Control Equipment: Permit Condition or Operation Limitation in Permit: Description of the Emergency: Describe the cause of the Emergency:

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If any of the following are not applicable, mark N/A	Page 2 of 2
Date/Time Emergency started:	
Date/Time Emergency was corrected:	
Was the facility being properly operated at the time of the emergency?	Y N
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _X , CO, Pb, other	r:
Estimated amount of pollutant(s) emitted during emergency:	
Describe the steps taken to mitigate the problem:	
Describe the corrective actions/response steps taken:	
Describe the measures taken to minimize emissions:	
If applicable, describe the reasons why continued operation of the facilitic imminent injury to persons, severe damage to equipment, substantial loss of product or raw materials of substantial economic value:	
Form Completed by:	
Title / Position:	
Date:	
Phone:	

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: Maplehurst Bakeries, Inc.

Source Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112 Mailing Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Part 70 Permit No.: T063-28023-00031

Facility: Moline I, Moline II, Moline IV, Moline V, Moline VI, and Moline VIII

Parameter: Volatile Organic Compounds (VOC)

Limit: 24.4 tons per year each, for Moline I, Moline II, Moline IV, and Moline V

40.1 tons per year, for Moline VI 60.7 tons per year, for Moline VIII

Compliance with these VOC limits shall be determined by the following equation:

$$1.1 \times \sum_{m=1}^{12} \left(\sum_{i=1}^{n} \frac{Ei * Bi}{2000lb/ton} \right)_{m} \le 24.4 \text{ tons of VOC per twelve consecutive month period}$$

Where:

 B_i = The amount of dough of type i produced during month m (tons/month); E_i = The VOC emission factor for type i bread (lb of VOC/ton of dough); and

m = The compliance period is one (1) calendar month.

The emission factor for each type of dough made shall be calculated using the following equation:

$$E = 0.95Y + 0.195ti - 0.51S - 0.86ts + 1.90$$

Where:

E = Pounds of VOC per ton of baked dough;

Y = Initial baker's percent of yeast;ti = Total yeast action time in hours;

S = Final (spike) baker's percent of yeast; and

ts = Spiking time in hours.

QUARTER: _____

□ No deviation occurred in this quarter.

□ Deviation/s occurred in this quarter.Deviation has been reported on:

1st Significant Source Modification No. 063-31357-00031 Modified by: John Haney DRAFT

YEAR: _____

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Month	Unit ID	Column 1	Column 2	Column 1 + Column 2
WOTH OTHER	This Month	Previous 11 Months	12 Month Total	
	Moline I			
	Moline II			
	Moline III			
Month 1	Moline IV			
	Moline V			
	Moline VI			
	Moline VIII			
	Moline I			
	Moline II			
	Moline III			
Month 2	Moline IV			
	Moline V			
	Moline VI			
	Moline VIII			
	Moline I			
	Moline II			
	Moline III			
Month 3	Moline IV			
	Moline V			
	Moline VI			
	Moline VIII			

Attach a signed certification to complete this report.

Submitted by:
Title / Position:
Signature:

Date: _____Phone: _____

Source Name:

1st Significant Source Modification No. 063-31357-00031 Modified by: John Haney DRAFT

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH PART 70 OPERATING PERMIT QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Maplehurst Bakeries, Inc.

Source Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112 50 Maplehurst Drive, Brownsburg, Indiana 46112 Mailing Address: Part 70 Permit No.: T063-28023-00031 Months: to Year: Page 1 of 2 This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period". □ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD. ☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD **Permit Requirement** (specify permit condition #) Date of Deviation: **Duration of Deviation:** Number of Deviations: **Probable Cause of Deviation: Response Steps Taken: Permit Requirement** (specify permit condition #) Date of Deviation: **Duration of Deviation:** Number of Deviations: **Probable Cause of Deviation:** Response Steps Taken:

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	1)
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Form Completed by:	
Title / Position:	
Date:	
Phone:	

Attach a signed certification to complete this report.

Maplehurst Bakeries, LLC

50 Maplehurst Drive Brownsburg, IN 46231

TELEPHONE: 317-858-9000 FAX: 317-858-9009

FUGITIVE DUST CONTROL PLAN Revised: 4/6/2009

Source Information

Primary Contact & Owner Information

Robert Goold Vice President of Operations Maplehurst Bakeries 50 Maplehurst Drive Brownsburg, IN 46112

Direct Office Number: (317) 858-4514 Off-hours Number: (317) 697-0257

Source Address

Maplehurst Bakeries, LLC 50 Maplehurst Drive Brownsburg, IN 46112

Emission Sources and Methods of Fugitive Emissions Control

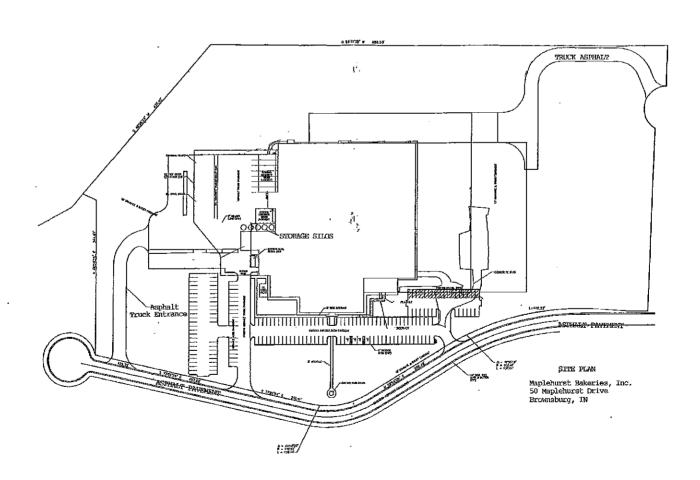
Roadway Control Measures

Maplehurst Bakeries – Brownsburg, IN

- 1. Traffic is restricted to established and controlled, paved roadways.
- 2. All parking lots are paved with asphalt and / or concrete.
- 3. Parking Lots are inspected for debris daily and debris is removed as necessary.
- 4. The following housekeeping and maintenance procedures that minimize the opportunity for particulate matter to become airborne and leave the property shall be followed:
 - a. Areas to be swept and maintained shall include, at a minimum, the following:
 - i. General grounds, yard, and other open areas.
 - ii. Silo Areas, unloading areas, dust collectors, and all areas of dust or waste concentrations.
 - b. Cleanings and other collected waste material shall be handled and disposed of so that the area does not generate fugitive dust.
 - c. Dust from driveways, access roads, and other areas of travel shall be controlled.
- 5. Accidental spills and other accumulations shall be cleaned up as soon as possible, but no later Than completion of the day's operation in accordance with the site's SPPC plan and Spill Response and Communication Procedures.

- 6. Equipment maintenance shall consist of procedures that eliminate or minimize emissions from Equipment or a system caused by the following:
 - a. Mechanical failures
 - b. Operating above the rated or designed capacity
 - c. Not following designed operating specifications
 - d. Lack of good preventive maintenance care
 - e. Lack of critical and proper spare replacement parts on hand
 - f. Lack of properly trained and experienced personnel
- 7. All bulk unloading of dry materials (flour, sugar, dextrose, oils) shall be supervised as per the Bulk Unloading SOP.

Site Map



Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification

Source Description and Location

Source Name: Maplehurst Bakeries, Inc.

Source Location: 50 Maplehurst Drive, Brownsburg, IN 46112

County: Hendricks SIC Code: 2051

Operation Permit No.: T063-28023-00031
Operation Permit Issuance Date: October 2, 2009
Significant Source Modification No.: 063-31357-00031
Significant Permit Modification No.: 063-31381-00031
Permit Reviewer: John Haney

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Hendricks County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective October 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
1 le ala a aifia bla	ar attainment affective October 10, 2000 for the 1 hour areas standard which was revolved

^{&#}x27;Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

Basic nonattainment designation effective federally April 5, 2005, for PM_{2.5}.

(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. Hendricks 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) $PM_{2.5}$

U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Hendricks County as nonattainment for PM_{2.5}. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source

Maplehurst Bakeries, Inc.

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Brownsburg, Indiana

TSD for Significant Source Modification No.: 063-31357-00031

Permit Reviewer: John Haney

TSD for Significant Permit Modification No.: 063-31381-00031

Review Rule for $PM_{2.5}$ promulgated on May 8, 2008. These rules became effective on July 15, 2008. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

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

Fugitive Emissions

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

Source Status

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

Pollutant	Emissions (tons/yr)	
PM	62.00	
PM ₁₀	22.03	
PM _{2.5}	22.03	
SO ₂	0.10	
VOC	176.86	
CO	14.33	
NO _X	17.06	
GHGs as CO ₂ e	Less than 100,000	
Acetaldehyde	Less than 10	
Total HAPs	Less than 25	

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant, excluding GHGs, is emitted at a rate of two hundred fifty (250) tons per year or more, emissions of GHGs are less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.
- (c) This existing source is not a major stationary source under nonattainment new source review rules (326 IAC 2-1.1-5) since direct PM_{2.5} and SO₂ are not emitted at a rate of 100 tons per year or more, each.
- (d) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are 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. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).
- (e) These emissions, excluding GHGs, are based upon the Technical Support Document for Part 70 Operating Permit No. T063-28023-00031, issued on October 2, 2009.

Page 3 of 31 TSD for Significant Source Modification No.: 063-31357-00031 TSD for Significant Permit Modification No.: 063-31381-00031

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Maplehurst Bakeries, Inc. on January 13, 2012, relating to the following:

- The installation of a new donut production line, identified as Moline VIII, and two dry ingredient scale hoppers/mixers, identified as EU73 and EU74;
- The modification of the dry ingredient conveyance system for the existing silos, use bins, and hoppers, allowing for increased throughput due to the new production line;
- The inclusion of the existing proof boxes, identified as Proof1 through Proof6, because IDEM, OAQ has recently been incorporating VOC emissions from proof boxes into a facility's potential to emit summary and considering a proof box and fryer to be one facility;
- The inclusion of several existing insignificant activities;
- The addition of separate dust collector units for five existing use bins; and
- The addition of a VOC BACT limit for existing donut production line Moline VI.

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

- (a) One (1) dry ingredient storage and conveyance system, including, but not limited to, pneumatic conveyance process equipment and piping, storage silos, use bins, weigh scale hoppers, ingredient mixers, transfer equipment, other process equipment and piping, and associated pollution control equipment, installed in April 2002 and approved in 2012 for modification, with a maximum throughput of 20,130 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
 - (5) Five (5) use bins, identified as emission units EU06, EU07, EU10, EU11, and EU14, installed in 2002 and approved in 2012 for modification, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.
 - (8) Two (2) dry ingredient scale hoppers/mixers, identified as EU73 and EU74, approved in 2012 for construction, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.
- (b) One (1) donut production line, identified as Moline I, installed in July 1993, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof1.
 - One (1) natural gas-fired fryer, identified as Fryer1, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 1.
- (c) One (1) donut production line, identified as Moline II, installed in December 1996, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof2.
 - One (1) natural gas-fired fryer, identified as Fryer2, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 2.
- (d) One (1) donut production line, identified as Moline III, installed in December 1998, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:

- (1) One (1) proof box, identified as Proof3.
- One (1) natural gas-fired fryer, identified as Fryer3, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 3.
- (e) One (1) donut production line, identified as Moline IV, installed in February 2001, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof4.
 - One (1) natural gas-fired fryer, identified as Fryer4, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 7.
- (f) One (1) donut production line, identified as Moline V, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof5.
 - One (1) natural gas-fired fryer, identified as Fryer5, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 5.
- (g) One (1) donut production line, identified as Moline VI, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof6.
 - One (1) natural gas-fired fryer, identified as Fryer6, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 4.
- (i) One (1) donut production line, identified as Moline VIII, approved in 2012 for construction, with a maximum production rate of 4,537 pounds of dough per hour, consisting of the following:
 - (1) One (1) proof box, identified as Proof8.
 - (2) One (1) electric fryer, identified as Fryer8, exhausting to Stack 11.

Insignificant Activities

- (b) Combustion source flame safety purging on startup.
- (c) Any operation using aqueous solutions containing less than one percent (1%) by weight of VOCs excluding HAPs, including two (2) degreasing operations.
- (d) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (e) Stationary fire pump engines, including one (1) electric fire pump engine.
- (f) A laboratory, as defined in 326 IAC 2-7-1(21)(H).
- (g) Activities with potential emissions within any of the following thresholds: equal to or less than 5 pounds per hour or 25 pounds per day PM₁₀, SO₂, or NO_x; equal to or less than 3 pounds per hour or 15 pounds per day VOC; equal to or less than 25 pounds per day CO; equal to or less than 0.6 tons per year or 3.29 pounds per day Pb; or greater than 1 pound

per day but less than 5 pounds per day or 1 ton per year single HAP (and not regulated by a NESHAP):

- (1) One (1) soy oil tank, with a capacity of 8,000 gallons.
- (2) One (1) shortening tank, with a capacity of 10,000 gallons.

Enforcement Issues

IDEM is aware that there is a pending enforcement action for exceeding the 326 IAC 8-1-6 avoidance limit for the donut production line identified as Moline VI. IDEM is also aware that the proof boxes may have been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

IDEM, OAQ has recently been incorporating VOC emissions from proof boxes into a facility's potential to emit summary and considering a proof box and fryer to be one facility with VOC emissions from proofing assumed to be 10% of the emissions calculated for fermentation.

Stack Summary

	Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
Ī	11	Moline VIII Fryer	14	2.5	1500	120

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following tables are used to determine the appropriate permit level under 326 IAC 2-7-10.5. These tables reflect the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Increase in PTE Before Controls of the Modification (tons/yr)			
Pollutant	PTE of New Emission Units*	PTE of Previously Unaccounted Units**	Increase in PTE
PM	6.74	0	6.74
PM ₁₀	3.82	0	3.82
PM _{2.5}	3.82	0	3.82
SO ₂	0	0	0
VOC	61.54	21.96	83.50
CO	0	0	0
NO _X	0	0	0
Acetaldehyde	1.83	0.67	2.50
Total HAPs	1.83	0.67	2.50

^{*} These units include the Moline VIII production line and the two scale hoppers (EU73 and EU74).

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

PTE Change of the Modified Process			
Pollutant	PTE Before Modification (tons/yr)	PTE After Modification (tons/yr)	Increase from Modification (tons/yr)
PM	227.10	277.05	49.95
PM ₁₀	79.60	97.10	17.50
PM _{2.5}	79.60	97.10	17.50
SO ₂	0	0	0
VOC	0	0	0
CO	0	0	0
NO _X	0	0	0
HAPs	0	0	0

Total PTE Increase due to the Modification				
Pollutant	PTE of New/Unaccounted Emission Units (tons/yr)	Net Increase to PTE of Modified Emission Units (tons/yr)	Total PTE for New and Modified Units (tons/yr)	
PM	6.74	49.95	56.69	
PM ₁₀	3.82	17.50	21.32	
PM _{2.5}	3.82	17.50	21.32	
SO ₂	0	0	0	
VOC	83.50	0	83.50	
СО	0	0	0	
NO _X	0	0	0	
Acetaldehyde	2.50	0	2.50	
Total HAPs	2.50	0	2.50	

This source modification is subject to 326 IAC 2-7-10.5(f)(2) because the modification is subject to 326 IAC 8-1-6. This source modification is also subject to 326 IAC 2-7-10.5(f)(4) because the potential to emit VOC and PM are each greater than twenty-five (25) tons per year before control. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because the modification requires a case-by-case determination of an emission limitation.

^{*} These units include the proof boxes for Moline I through Moline VI.

Permit Level Determination - PSD or Emission Offset or Nonattainment NSR

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/yr)									
Process / Emission Unit	PM	PM ₁₀	PM _{2.5} *	SO ₂	voc	со	NO _X	GHGs	Worse Case Single HAP**	Total HAPs
Silo Receiving	13.84	48.49	13.84	0	0	0	0	0	0	0
Dry Ingredient Conveyance	163.85	55.49	55.49	0	0	0	0	0	0	0
Moline I	1.46	1.75	1.75	0.003	< 25	0.47	0.56	674	1.27	1.28
Moline II	1.46	1.75	1.75	0.003	< 25	0.47	0.56	674	1.20	1.21
Moline III	1.46	1.75	1.75	0.003	< 25	0.47	0.56	674	1.22	1.23
Moline IV	1.46	1.75	1.75	0.003	< 25	0.47	0.56	674	1.17	1.17
Moline V	1.46	1.75	1.75	0.003	< 25	0.47	0.56	674	1.19	1.20
Moline VI	1.46	1.75	1.75	0.003	< 40.69	0.47	0.56	674	1.20	1.21
Moline VII	1.46	1.75	1.75	0.003	0.59	0.47	0.56	674	0.00	0.01
Moline VIII	2.19	2.58	2.58	0.00	< 61.54	0.00	0.00	0	1.83	1.83
Insignificant Activities	0.27	1.07	1.07	0.08	0.77	11.79	14.03	16,943	0.00	0.26
Total for Source	190.34	119.89	85.24	0.11	228.54	15.07	17.94	21,661	9.07	9.41
PSD Major Source Thresholds	250	250	NA	250	250	250	250	100,000 CO ₂ e	250	250
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	100	100	NA	NA	NA	NA	NA	NA

^{*}PM_{2.5} listed is direct PM_{2.5}.

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

This modification to an existing minor stationary source is not major because the emissions increase is less than the Emission Offset and Nonattainment NSR major levels. Therefore, pursuant to 326 IAC 2-3 and 326 IAC 2-1.1-5, the Emission Offset and Nonattainment NSR requirements do not apply.

^{**}The worst case single HAP is acetaldeyhde.

Permit Reviewer: John Haney

PSD Avoidance Limits

The source has the potential to emit greater than 250 tons per year of PM. Therefore, 326 IAC 2-2 would have applied to the source. However, the source has decided to limit their PM emissions below the major source threshold as follows:

Emission Unit	PM Limit (lb/hr)
Flour Silo (EU01) - Loading	0.92
Flour Silo (EU02) - Loading	0.92
Flour Silo (EU03) - Loading	0.44
Sugar Silo (EU04) - Loading	0.44
Dextrose Silo (EU05) - Loading	0.44

Compliance with the above limits, combined with the potential to emit PM from other emission units at the source, shall limit the PM emissions from the entire source to less than 250 tons per twelve (12) consecutive month period for PM. This shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

The source has the potential to emit greater than 250 tons per year of VOC. Therefore, 326 IAC 2-2 would have applied to the source. However, the source has decided to limit their VOC emissions below the major source threshold as follows:

In order to render the requirements of 326 IAC 2-2 not applicable, the VOC emissions attributable to proofing and fermentation for each donut production line (Moline I through Moline V) shall be limited to 24.4 tons per twelve (12) consecutive month period.

Compliance with the above limits, combined with the potential to emit VOC from other emission units at the source, shall limit the VOC emissions from the entire source to less than 250 tons per twelve (12) consecutive month period for VOC. This shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

Nonattainment NSR Avoidance Limits

The source has the potential to emit greater than 100 tons per year of PM_{2.5}. Therefore, 326 IAC 2-1.1-5 (Nonattainment NSR) would have applied to the source. However, the source has decided to limit their PM_{2.5} emissions below the major source threshold as follows:

Emission Unit	PM _{2.5} Limit (lb/hr)		
Flour Silo (EU01) - Loading	0.92		
Flour Silo (EU02) - Loading	0.92		
Flour Silo (EU03) - Loading	0.44		
Sugar Silo (EU04) - Loading	0.44		
Dextrose Silo (EU05) - Loading	0.44		

Compliance with the above limits, combined with the potential to emit PM_{2.5} from other emission units at the source, shall limit the PM_{2.5} emissions from the entire source to less than 100 tons per twelve (12) consecutive month period for PM_{2.5}. This shall render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.

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Federal Rule Applicability Determination

NSPS:

- (a) The storage tanks at this source have individual capacities less than 75 cubic meters (19,813 gallons). Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (326 IAC 12, 40 CFR 60.110b, Subpart Kb) are not included in this permit.
- (b) This source is not subject to the requirements of the New Source Performance Standard for Grain Elevators, 40 CFR 60.300, Subpart DD because this source does not contain any grain terminal elevators or grain storage elevators. This source contains dry ingredient storage silos that are not equipped with grain elevators.
- (c) The requirements of the following NSPS under 40 CFR Part 60 are not included in the permit:
 - New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60.4200, Subpart IIII); and
 - New Source Performance Standard for Spark Ignition Internal Combustion Engines, 40 CFR 60.4230, Subpart JJJJ).

These NSPS apply only to internal combustion engines. Since the stationary fire pump engine is electric, it does not have an internal combustion engine; therefore, Maplehurst Bakeries, Inc. is not subject to these NSPS.

NESHAP:

(d) The requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63.6580, Subpart ZZZZ, are not included in this permit because the stationary fire pump engine is electric and does not have an internal combustion engine.

CAM:

- (e) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

CAM Applicability Analysis							
Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/yr)	Controlled PTE (tons/yr)	Part 70 Major Source Threshold (tons/yr)	CAM Applicable (Y/N)	Large Unit (Y/N)
Flour Silo (EU01): PM	Baghouse	Υ	40.39	0.40	100	N	N
Flour Silo (EU01): PM ₁₀ /PM _{2.5}	Baghouse	Y	14.15	0.14	100	N	N
Flour Silo (EU02): PM	Baghouse	Υ	40.39	0.40	100	N	N
Flour Silo (EU02): PM ₁₀ /PM _{2.5}	Baghouse	Υ	14.15	0.14	100	N	N
Flour Silo (EU03): PM	Dust Collector	Y	19.22	0.19	100	N	N
Flour Silo (EU03): PM ₁₀ /PM _{2.5}	Dust Collector	Y	6.73	0.07	100	N	N
Sugar Silo (EU04): PM	Dust Collector	Y	19.22	0.19	100	N	N
Sugar Silo (EU04): PM ₁₀ /PM _{2.5}	Dust Collector	Y	6.73	0.07	100	N	N
Dextrose Silo (EU05): PM	Dust Collector	Y	19.22	0.19	100	N	N
Dextrose Silo (EU05): PM ₁₀ /PM _{2.5}	Dust Collector	Y	6.73	0.07	100	N	N
Use Bins: PM	Dust Collector	Y	<0.21	<0.01	100	N	N
Use Bins: PM ₁₀ /PM _{2.5}	Dust Collector	N*			100	N	
Scale Hoppers: PM	Dust Collector	Y	<25.22	<0.25	100	N	N
Scale Hoppers: PM ₁₀ /PM _{2.5}	Dust Collector	N*			100	N	

^{*} There are no emission limits for PM₁₀ or PM_{2.5} that are applicable for these emission units.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new or modified units as part of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)

- (a) According to Part 70 Operating Permit No. T063-28023-00031, the potential to emit of all attainment regulated pollutants was less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) were not applicable to the source.
- (b) According to Significant Source Modification No. 063-31357-00031, the source has the potential to emit greater than 250 tons per year of PM. Therefore, 326 IAC 2-2 would have applied to the source. However, the source has decided to limit their PM emissions below the major source threshold. Compliance with these limits, combined with the potential to emit PM from other emission units at the source, shall limit the PM emissions from the entire source to less than 250 tons per twelve (12) consecutive month period for PM. This shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

These are new requirements. This is a Title I change.

(c) According to Significant Source Modification No. 063-31357-00031, the source has the potential to emit greater than 250 tons per year of VOC. Therefore, 326 IAC 2-2 would have applied to the source. However, the source has decided to limit their VOC emissions below the major source threshold. Compliance with these limits, combined with the potential to emit VOC from other emission units at the source, shall limit the VOC emissions from the entire source to less than 250 tons per twelve (12) consecutive month period for VOC. This shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

The existing 326 IAC 8-1-6 requirements are also applicable for purposes of 326 IAC 2-2. This is a Title I change.

326 IAC 2-3 (Emission Offset) and 326 IAC 2-1.1-5 (Nonattainment NSR)

- (a) VOC
 - (1) The requirements of 326 IAC 2-3 (Emission Offset) apply to major sources or major modifications constructed in an area designated as nonattainment. Hendricks County was designated as nonattainment for 8-hour ozone from June 2004 until October 2007. All of the proof boxes were installed prior to 2004 and therefore were not evaluated under 326 IAC 2-3 or 326 IAC 2-1.1-5. Also, according to Part 70 Operating Permit No. T063-28023-00031, no significant modifications were made to this source while the county was in nonattainment. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) were not applicable to the source during this time period.
 - (2) Effective October 19, 2007, Hendricks County has been re-classified as attainment in Indiana for 8-hour ozone. Therefore, 326 IAC 2-3 does not apply to this source.
- (b) PM_{10}

Hendricks County has always been designated as attainment for PM₁₀. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) have never applied to the source for PM₁₀.

- (c) PM₁₀ as a Surrogate for PM_{2.5}
 - U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, designated Hendricks County as nonattainment for PM_{2.5}. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filled a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources were not potentially liable for a violation of the Clean Air Act, the OAQ followed the U.S. EPA's guidance to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.
 - (2) The requirements of 326 IAC 2-3 (Emission Offset) apply to major sources or major modifications constructed in an area designated as nonattainment. Hendricks County was designated as nonattainment for PM_{2.5} from January 2005 until July 2008. All of the proof boxes were installed prior to 2004 and therefore were not evaluated under 326 IAC 2-3 or 326 IAC 2-1.1-5. Also, according to Part 70 Operating Permit No. T063-28023-00031, no significant modifications were made to this source while the county was in nonattainment. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) were not applicable to the source during that time.

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(3) In order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM_{2.5} promulgated on May 8, 2008. These rules became effective on July 15, 2008. Therefore, on and after July 15, 2008, PM₁₀ emissions are no longer reviewed, as a surrogate for PM_{2.5}, pursuant 326 IAC 2-3 (Emission Offset).

(d) $PM_{2.5}$ and SO_2

- U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Hendricks County as nonattainment for PM_{2.5}. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM_{2.5} promulgated on May 8, 2008. These rules became effective on July 15, 2008. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.
- (2) All of the proof boxes were installed prior to 2004 and therefore were not evaluated under 326 IAC 2-1.1-5.
- (3) According to Significant Source Modification No. 063-31357-00031, the source has the potential to emit greater than 100 tons per year of PM_{2.5}. Therefore, 326 IAC 2-1.1-5 (Nonattainment NSR) would have applied to the source. However, the source has decided to limit their PM_{2.5} emissions below the major source threshold. Compliance with these limits, combined with the potential to emit PM_{2.5} from other emission units at the source, shall limit the PM_{2.5} emissions from the entire source to less than 100 tons per twelve (12) consecutive month period for PM_{2.5}. This shall render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.

These are new requirements. This is a Title I change.

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

The operation of the source will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM_{10} is less than 250 tons per year each, and the potential to emit of CO, NO_x , and SO_2 is less than 2,500 tons per year each. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 by July 1, 2005 and every three (3) years thereafter. The next statement shall be submitted by July 1, 2014. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The electric fryer for Moline VIII, identified as Fryer8, is not subject to 326 IAC 6-2 as it is not a source of indirect heating.

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

- (a) The proofing and fermentation processes do not generate particulate. Therefore, 326 IAC 6-3-2 does not apply to these processes.
- (b) The natural gas combustion from the operation of the fryers is exempt from 326 IAC 6-3-2 because, pursuant to 326 IAC 6-3-1(b)(1), this involves combustion for indirect heating.

- (c) The fryers are exempt from 326 IAC 6-3-2 because, pursuant to 326 IAC 6-3-1(b)(14), each fryer has potential particulate emissions less than 0.551 lb/hr. However, according to Operating Permit No. T063-28023-00031, particulate limits were established for the fryers appropriate to 326 IAC 6-3-2(e)(2). Since these emission units do not fall under the rule applicability of 326 IAC 6-3-2, the particulate limits in Section D.1 have been removed.
- (d) The use bins are exempt from 326 IAC 6-3-2 because, pursuant to 326 IAC 6-3-1(b)(14), each emission unit has potential particulate emissions less than 0.551 lb/hr. However, according to Operating Permit No. T063-28023-00031, particulate limits were established for the use bins appropriate to 326 IAC 6-3-2(e)(2). Since these emission units do not fall under the rule applicability of 326 IAC 6-3-2, the particulate limits for the use bins in Section D.3 have been removed.
- (e) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from each of the silos and scale hoppers shall not exceed the allowable PM emission rates as listed in the table below. Each 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

Summary of Process Weight Rate Limits						
Process / Emission Unit	P (tons/hr)	E (lb/hr)				
Flour Silos - Loading (EU01, EU02, EU03)	25 (each)	35.4 (each)				
Minor Ingredient Silos - Loading (EU04, EU05)	25 (each)	35.4 (each)				
Flour Silos - Conveying (EU01, EU02)	2.937 (each)	8.44 (each)				
Flour Silo - Conveying (EU03)	1.397	5.13				
Minor Ingredient Silos - Conveying (EU04, EU05)	1.397 (each)	5.13 (each)				
Seventeen (17) Scale Hoppers (EU19-EU33, EU73, EU74)	10.065 (each)	19.3 (each)				

Each of the emission units is capable of complying with the corresponding 326 IAC 6-3-2 limit without the use of controls.

326 IAC 7-1 (Sulfur Dioxide Emission Limitations)

The electric fryer for Moline VIII, identified as Fryer8, is not subject to the requirements of 326 IAC 7-1 because the potential and the actual emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour, respectively.

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

(a) The following donut production lines have individual potential emissions of VOC greater than 25 tons per year: Moline I, Moline II, Moline III, Moline IV, and Moline V. Therefore, 326 IAC 8-1-6 would have applied to each facility. However, the source has decided to limit their VOC emissions below the applicability level as follows:

In order to render the requirements of 326 IAC 8-1-6 not applicable, the VOC emissions attributable to proofing and fermentation for each donut production line (Moline I through

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Moline V) shall be limited to 24.4 tons per twelve (12) consecutive month period. Compliance with these limits, combined with the potential VOC emissions from other emission units in each bakery line, shall limit the VOC emissions from each facility to less than 25 tons per twelve (12) consecutive month period for VOC. This shall render the requirements of 326 IAC 8-1-6 (BACT) not applicable for Moline I through Moline V.

The existing requirement has been revised to include the VOC emissions from the proof boxes. This is a Title I change.

(b) The donut production line identified as Moline VI is subject to 326 IAC 8-1-6 because it exceeded the 326 IAC 8-1-6 avoidance limit of 24.4 pounds per hour, which was made federally enforceable pursuant to Part 70 Operating Permit No. T063-28023-00031, issued October 2, 2009. Therefore, IDEM, OAQ has performed a BACT analysis, which was based on the Draft "Top Down Approach: BACT Guidance" by USEPA, Office of Air Quality Planning Standards, March 15, 1990.

IDEM, OAQ has determined that the following requirements represent BACT for the donut production line identified as Moline VI:

- (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VI (consisting of the fryer (Fryer6) and the proof box (Proof6)) shall not exceed 40.1 tons per twelve (12) consecutive month period.
- (2) The source shall operate the proof box (Proof6) in accordance with the manufacturer's design and operating specifications.
- (3) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof6), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (A) Weekly Cleaning Procedure:
 - (i) Remove all raw ingredients and/or product containers from the seeder area;
 - (ii) Scrape any dough from the racks and supports;
 - (iii) Scrape and sweep the proof box floor; and
 - (iv) Wet the entire floor with cleaning solvent mixture and then rinse.
 - (B) Four Week Cleaning Procedure:
 - (i) Wipe off interior proof box channel rails where needed;
 - (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
 - (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.

See Appendix B of this Technical Support Document for the detailed BACT Analysis.

The existing avoidance limit for Moline VI has been replaced with these new requirements pursuant to VOC BACT (326 IAC 8-1-6). This is a Title I change.

(c) The donut production line identified as Moline VII is not subject to 326 IAC 8-1-6 because it has potential emissions of VOC less than 25 tons per year, as stated in the Technical Support Document (TSD) for Part 70 Operating Permit No. T063-28023-00031. However, according to Part 70 Operating Permit No. T063-28023-00031, a VOC limit was established for Moline VII in order to avoid the requirements of 326 IAC 8-1-6. Since this emission unit does not fall under the rule applicability of 326 IAC 8-1-6, this avoidance limit has been removed. This is a Title I change.

Because this avoidance limit has been removed, the corresponding recordkeeping and reporting requirements have been revised, and the corresponding reporting form has been revised as well. This is a Title I change.

Any change or modification which may increase the potential to emit VOC from Moline VII to 25 tons per year or more shall require prior approval by the IDEM, OAQ before such changes may take place.

(d) The donut production line identified as Moline VIII is subject to 326 IAC 8-1-6 because it will be constructed after January 1, 1980 and has potential to emit VOC greater than 25 tons per year. Therefore, IDEM, OAQ has performed a BACT analysis, which was based on the Draft "Top Down Approach: BACT Guidance" by USEPA, Office of Air Quality Planning Standards, March 15, 1990.

IDEM, OAQ has determined that the following requirements represent BACT for the donut production line identified as Moline VIII:

- (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VIII (consisting of the fryer (Fryer8) and the proof box (Proof8)) shall not exceed 60.7 tons per twelve (12) consecutive month period.
- (2) The source shall operate the proof box (Proof8) in accordance with the manufacturer's design and operating specifications.
- (3) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof8), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (A) Weekly Cleaning Procedure:
 - Remove all raw ingredients and/or product containers from the seeder area;
 - (ii) Scrape any dough from the racks and supports;
 - (iii) Scrape and sweep the proof box floor; and
 - (iv) Wet the entire floor with cleaning solvent mixture and then rinse.
 - (B) Four Week Cleaning Procedure:
 - (i) Wipe off interior proof box channel rails where needed;
 - (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
 - (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.

See Appendix B of this Technical Support Document for the detailed BACT Analysis.

This is a new requirement. This is a Title I change.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance determination requirements applicable to this modification are as follows:

(a) VOC Compliance Determination

Compliance with the VOC limits in Condition D.1.1 shall be determined by the following equation:

1.1 x
$$\sum_{m=1}^{12} \left(\sum_{i=1}^{n} \frac{Ei * Bi}{2000 lb / ton} \right)_{m} \le 24.40$$
 tons of VOC per 12 consecutive month period

Where:

B_i = The amount of dough of type i produced during month m

(tons/month);

E_i = The VOC emission factor for type i dough (lb of VOC/ton of

dough); and

m= The compliance period is one (1) calendar month.

The emission factor for each type of donut dough shall be calculated using the following equation:

E = 0.95Y + 0.195ti - 0.51S - 0.86ts + 1.90

Where:

E = Pounds of VOC per ton of baked dough;

Y = Initial baker's percent of yeast; ti = Total yeast action time in hours;

S = Final (spike) baker's percent of yeast; and

ts = Spiking time in hours.

The compliance equation has been revised in order to include the VOC emissions from the proof boxes. VOC emissions from proofing shall be assumed to be 10% of the emissions calculated for fermentation based on the "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017, December 1992). This is a Title I change.

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(b) Emission Controls Operation

- (1) A baghouse for particulate emissions control shall be in operation and control particulate emissions whenever flour silo EU01 is being loaded.
- (2) A baghouse for particulate emissions control shall be in operation and control particulate emissions whenever flour silo EU02 is being loaded.
- (3) The central dust collector for particulate emissions control shall be in operation and control particulate emissions whenever any of the following emission units are being loaded: flour silo EU03, sugar silo EU04, and dextrose silo EU05.

These compliance determination requirements have been revised to indicate they apply to the emission units only when they are being loaded. This is a Title I change.

Because the particulate limits for the use bins have been removed, the corresponding compliance determination requirements have been revised to remove the references of the use bins. This is a Title I change.

Because the scale hoppers are capable of complying with their 326 IAC 6-3-2 limit without the use of controls, the corresponding compliance determination requirements that reference the scale hoppers have been removed. This is a Title I change.

These requirements are required to ensure compliance with 326 IAC 8-1-6 (VOC BACT) and to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.

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

(a) Baghouse Parametric Monitoring

The Permittee shall monitor the pressure alarms to the Scale Hoppers continuously with the Control System over the Batching Area. When either the low pressure "No Convey Alarm" or high pressure "High Pressure Alarm Check Filters to Mixer XX" alarm is active during production, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances.

These monitoring conditions are necessary because the control devices must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T063-28023-00031. Deleted language appears as strikethroughs and new language appears in **bold**:

- Several emission units and insignificant activities have been added to Sections A.2, A.3,
 D.1, and D.3. The descriptions of several emission units and insignificant activities in Sections A.2, A.3, and D.2 have also been clarified.
- (b) Condition D.1.1 has been clarified to include the VOC emissions from the proof boxes and to remove Moline VI and VII from the requirement. This is a Title I change.
- (c) The particulate limits in Condition D.1.2 have been removed because these emission units do not fall under the rule applicability of 326 IAC 6-3-2.
- (d) VOC BACT limits have been established in Condition D.1.2 for emission units Moline VI and Moline VIII. This is a Title I change.

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- (e) The compliance equation in Condition D.1.4 has been revised in order to include the VOC emissions from the proof boxes. The Quarterly Report has also been revised. This is a Title I change.
- (f) The recordkeeping and reporting requirements in Condition D.1.6 have been revised to also reference Condition D.1.2.
- (g) PSD and Nonattainment NSR avoidance limits have been added as Condition D.3.1. This is a Title I change.
- (h) The emission standard in Condition D.3.2 is duplicative of Condition C.6 and has been removed.
- (i) The existing particulate limits in renumbered Condition D.3.2 have been revised to account for the increased process throughput. Supplementary particulate limits have also been added for the silo loading operations.
- (j) The compliance determination requirements in Conditions D.3.4(a) and (b) have been revised to indicate they apply to the emission units only when they are being loaded. This is a Title I change.
- (k) The compliance determination requirement in Condition D.3.4(b) has been revised to remove the references of the use bins. This is a Title I change.
- (I) The compliance determination requirement in Condition D.3.4(c) has been removed. This is a Title I change.
- (m) The compliance determination requirements in Conditions D.3.4(e) and (f) are duplicative of Conditions D.3.4(b) and (c) and have been removed.
- (n) The header to Condition D.3.5 has been revised by removing the reference to 40 CFR 64. These requirements are not applicable to CAM.
- (o) Condition D.3.6 has been revised to account for the additional two scale hoppers.

The permit has been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

- (a) Six (6) natural gas fired fryers identified as Moline I, Moline II, Moline III, Moline IV, Moline V and Moline VI with maximum capacities of 3000 pounds per hour of premix dough and water, which were installed in July 1993, December 1996, December 1998, February 2001, February 2002, February 2002 and February 2002, respectively, and have rated capacities of 1.4, 1.4, 1.4, 0.26, 0.84 and 0.84 MMBtu per hour, respectively, exhausting to Stacks 1, 2, 3, 7, 5, and 4.
- (b) One (1) natural gas fired fryer identified as Moline VII with a maximum capacity of 3000 pounds per hour of premix cake batter and water, installed in October 2008 and have a rated heat capacity of 1.3 MMBtu per hour, exhausting to Stacks 9 and 10.
- (e)(a) One (1) dry ingredient storage and conveyance system, including, but not limited to, pneumatic conveyance process equipment and piping, storage silos, use bins, weigh scale hoppers, ingredient mixers, transfer equipment, other process equipment and piping, and associated pollution control equipment, installed in April 2002 and approved in 2012 for modification, with a maximum throughput of 16,500 20,130 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:

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(1) Three (3) Two (2) flour storage silos, identified as emission units EU01, and EU02 and EU03, installed in December 1995, and May 2001 and April 2002, respectively, with EU01 and EU02 each equipped with a baghouse and EU03 tied to one (1) central dust collector unit for control of particulate matter emissions, and exhausting outside.

- (2) One (1) flour storage silo, identified as emission unit EU03, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
- (2)(3) One (1) sugar storage silo, identified as emission unit EU04, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, and exhausting outside.
- (3)(4) One (1) dextrose storage silo, identified as emission unit EU05, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, and exhausting outside.
- (5) Five (5) use bins, identified as emission units EU06, EU07, EU10, EU11, and EU14, installed in 2002 and approved in 2012 for modification, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.
- (4)(6) Thirteen (13) Eight (8) use bins, identified as emission units EU06 EU08, EU09, EU12, EU13, and EU15 through EU18, installed in 2002, with each use bin tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside inside.
- (5)(7) Fifteen (15) dry ingredient scale hoppers, identified as emission units EU19 through EU33, installed in 2002, with each scale hopper equipped with one (1) filter unit for control of particulate matter emissions, exhausting outside inside.
- (8) Two (2) dry ingredient scale hoppers/mixers, identified as EU73 and EU74, approved in 2012 for construction, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.
- (b) One (1) donut production line, identified as Moline I, installed in July 1993, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof1.
 - One (1) natural gas-fired fryer, identified as Fryer1, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 1.
- (c) One (1) donut production line, identified as Moline II, installed in December 1996, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof2.
 - One (1) natural gas-fired fryer, identified as Fryer2, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 2.

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- One (1) donut production line, identified as Moline III, installed in December 1998, (d) with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof3.
 - (2) One (1) natural gas-fired fryer, identified as Fryer3, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 3.
- (e) One (1) donut production line, identified as Moline IV, installed in February 2001. with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - One (1) proof box, identified as Proof4. (1)
 - (2) One (1) natural gas-fired fryer, identified as Fryer4, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 7.
- One (1) donut production line, identified as Moline V, installed in February 2002, (f) with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof5.
 - One (1) natural gas-fired fryer, identified as Fryer5, with a maximum heat (2) input capacity of 1.3 MMBtu per hour, exhausting to Stack 5.
- (g) One (1) donut production line, identified as Moline VI, installed in February 2002. with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof6.
 - (2) One (1) natural gas-fired fryer, identified as Fryer6, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 4.
- (h) One (1) frozen donut production line, identified as Moline VII, installed in October 2008, with a maximum production rate of 3,000 pounds per hour of premix dough/cake batter and water, consisting of the following:
 - (1) One (1) natural gas-fired fryer, identified as Fryer7, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stacks 9 and 10.
 - (2) One (1) shock freezer spiral conveyor.
- (i) One (1) donut production line, identified as Moline VIII, approved in 2012 for construction, with a maximum production rate of 4,537 pounds of dough per hour, consisting of the following:
 - (1) One (1) proof box, identified as Proof8.
 - (2) One (1) electric fryer, identified as Fryer8, exhausting to Stack 11.

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A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities as defined in 326 IAC 2-7-1(21):

- (a) Natural gas fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including:
 - (a)(1) One (1) natural gas-fired boiler, identified as Ajax, installed in September 2000, with **a** rated capacity of 6.3 MMBtu per hour, exhausting to the Stack 6. [326 IAC 6-2]
 - (b)(2) One (1) 6.3 MMBtu/hr natural gas-fired boiler, identified as Ajax Boiler #2, installed in June 2003, with a rated capacity of 6.3 MMBtu per hour, with emissions exhausted through exhausting to Stack 8. [326 IAC 6-2]
 - (c)(3) Five (5) natural gas-fired fueled space heaters, identified as EU34, EU35, EU36, EU37 and EU40, with two (2) space heaters having a heat input capacity of 0.040 MMBtu per hour and three (3) space heaters having a heat input capacity of 0.030 MMBtu per hour, each installed in June 2005, except EU37 which was installed in October 1994.
 - (d)(4) Two (2) natural gas-fired fueled revert ovens, identified as EU38 and EU72, installed in June 2005, with heat input capacities of 0.170 MMBtu per hour and 0.177 MMBtu per hour, respectively.
 - (e)(5) Two (2) natural gas-fired fueled water heaters, identified as EU39 and EU48, installed in June 2005, with heat input capacities of 0.199 MMBtu per hour and 0.370 MMBtu per hour, respectively. [326 IAC 6-2]
 - (f)(6) Eight (8) natural gas-fired fueled, makeup air units, identified as EU41 through EU47 and EU49, each installed in June 2005, except EU47 which was installed in 2001, with heat input capacities that range from 0.225 MMBtu per hour to 4.125 MMBtu per hour.
 - (g)(7) Twenty Two -two (22) natural gas-fired fueled rooftop heating/air conditioning units, identified as EU50 through EU71, installed between March 1994 and October 2008, with heat input capacities that range from 0.199 MMBtu per hour to 0.370 MMBtu per hour.
- (b) Combustion source flame safety purging on startup.
- (c) Any operation using aqueous solutions containing less than one percent (1%) by weight of VOCs excluding HAPs, including two (2) degreasing operations.
- (d) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (e) Stationary fire pump engines, including one (1) electric fire pump engine.
- (f) A laboratory, as defined in 326 IAC 2-7-1(21)(H).
- (g) Activities with potential emissions within any of the following thresholds: equal to or less than 5 pounds per hour or 25 pounds per day PM₁₀, SO₂, or NO_x; equal to or less than 3 pounds per hour or 15 pounds per day VOC; equal to or less than 25 pounds per day CO; equal to or less than 0.6 tons per year or 3.29 pounds per day Pb; or greater than 1 pound per day but less than 5 pounds per day or 1 ton per year single HAP (and not regulated by a NESHAP):

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- (1) One (1) soy oil tank, with a capacity of 8,000 gallons.
- (2) One (1) shortening tank, with a capacity of 10,000 gallons.

* * * * *

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Six (6) natural gas fired fryers identified as Moline I, Moline II, Moline III, Moline IV, Moline V and Moline VI with maximum capacities of 3000 pounds per hour of premix dough and water, respectively, which were installed in July 1993, December 1996, December 1998, February 2001, February 2002, February 2002 and February 2002, respectively, and have rated capacities of 1.4, 1.4, 1.4, 0.26, 0.84 and 0.84 MMBtu per hour, respectively, exhausting to Stacks 1, 2, 3, 7, 5, and 4.
- (b) One (1) natural gas fired fryer identified as Moline VII with a maximum capacity of 3000 pounds per hour of premix cake batter and water, installed in October 2008 and have a rated heat capacity of 1.3 MMBtu per hour, exhausting to Stacks 9 and 10.
- (b) One (1) donut production line, identified as Moline I, installed in July 1993, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof1.
 - (2) One (1) natural gas-fired fryer, identified as Fryer1, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 1.
- (c) One (1) donut production line, identified as Moline II, installed in December 1996, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof2.
 - One (1) natural gas-fired fryer, identified as Fryer2, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 2.
- (d) One (1) donut production line, identified as Moline III, installed in December 1998, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof3.
 - (2) One (1) natural gas-fired fryer, identified as Fryer3, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 3.
- (e) One (1) donut production line, identified as Moline IV, installed in February 2001, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof4.
 - (2) One (1) natural gas-fired fryer, identified as Fryer4, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 7.

- (f) One (1) donut production line, identified as Moline V, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof5.
 - One (1) natural gas-fired fryer, identified as Fryer5, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 5.
- (g) One (1) donut production line, identified as Moline VI, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof6.
 - (2) One (1) natural gas-fired fryer, identified as Fryer6, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 4.
- (i) One (1) donut production line, identified as Moline VIII, approved in 2012 for construction, with a maximum production rate of 4,537 pounds of dough per hour, consisting of the following:
 - (1) One (1) proof box, identified as Proof8.
 - (2) One (1) electric fryer, identified as Fryer8, exhausting to Stack 11.

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

D.1.1 Avoidance Limits for VOC BACT and PSD Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-2]

In order to render the requirements of 326 IAC 8-1-6 and 326 IAC 2-2 not applicable, the VOC emissions from the attributable to proofing and fermentation process for each bakery donut production line (Moline I through Moline VII V) shall be limited to 24.4 tons per twelve (12) consecutive month period. Compliance with this limit for VOC emissions from the fermentation process in combination these limits, combined with the potential VOC emissions from frying for other emission units in each bakery line, shall limit the total VOC emissions from each bakery line facility to less than 25 tons per twelve (12) consecutive month period and for VOC and shall limit the VOC emissions from the entire source to less than 250 tons per twelve (12) consecutive month period for VOC. This shall render the requirements of 326 IAC 8-1-6 (BACT) not applicable for each facility Moline I through Moline V. This shall also render the requirements of 326 IAC 2-2 (PSD) not applicable for the entire source.

D.1.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emission rate from each natural gas fired fryer shall not exceed the 4.56 pounds per hour when operating at a process weight rate of 1.50 tons per hour.

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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D.1.2 BACT Requirements (VOC) [326 IAC 8-1-6]

(a) Pursuant to 326 IAC 8-1-6 and SSM 063-31357-00031, BACT has been determined to be the following for the donut production line identified as Moline VI:

- (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VI (consisting of the fryer (Fryer6) and the proof box (Proof6)) shall not exceed 40.1 tons per twelve (12) consecutive month period.
- (2) The source shall operate the proof box (Proof6) in accordance with the manufacturer's design and operating specifications.
- (3) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof6), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (A) Weekly Cleaning Procedure:
 - (i) Remove all raw ingredients and/or product containers from the seeder area;
 - (ii) Scrape any dough from the racks and supports;
 - (iii) Scrape and sweep the proof box floor; and
 - (iv) Wet the entire floor with cleaning solvent mixture and then rinse.
 - (B) Four Week Cleaning Procedure:
 - (i) Wipe off interior proof box channel rails where needed;
 - (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
 - (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.
- (b) Pursuant to 326 IAC 8-1-6 and SSM 063-31357-00031, BACT has been determined to be the following for the donut production line identified as Moline VIII:
 - (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VIII (consisting of the fryer (Fryer8) and the proof box (Proof8)) shall not exceed 60.7 tons per twelve (12) consecutive month period.
 - (2) The source shall operate the proof box (Proof8) in accordance with the manufacturer's design and operating specifications.
 - (3) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof8), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:

(A) Weekly Cleaning Procedure:

- (i) Remove all raw ingredients and/or product containers from the seeder area;
- (ii) Scrape any dough from the racks and supports;
- (iii) Scrape and sweep the proof box floor; and
- (iv) Wet the entire floor with cleaning solvent mixture and then rinse.

(B) Four Week Cleaning Procedure:

- (i) Wipe off interior proof box channel rails where needed;
- (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
- (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.

D.1.4 Volatile Organic Compounds

Compliance with the VOC limits contained in **Conditions** D.1.1 and **D.1.2** shall be determined by the following equation:

1.1 x
$$\sum_{m=1}^{12} \left(\sum_{i=1}^{n} \frac{Ei * Bi}{2000 lb / ton} \right)_{m} \le 24.40$$
 tons of VOC per twelve consecutive month period

D.1.5 Record Keeping Requirements

* * * * *

- (a) To document compliance with Conditions D.1.1 **and D.1.2**, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emissions limits established in Conditions D.1.1 **and D.1.2**.
 - (1) The dates of the compliance period.
 - (2) The number of production hours for each bakery line operated (Moline I through Moline VI and Moline VIII) during each compliance period.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

Maplehurst Bakeries, Inc.

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Brownsburg, Indiana

TSD for Significant Source Modification No.: 063-31357-00031

Permit Reviewer: John Haney

TSD for Significant Permit Modification No.: 063-31381-00031

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

- (a) Natural gas fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including:
 - (a)(1) One (1) natural gas-fired boiler, identified as Ajax, installed in September 2000, with a rated capacity of 6.3 MMBtu per hour, exhausting to the Stack 6. [326 IAC 6-2]
 - (b)(2) One (1) 6.3 MMBtu/hr natural gas-fired boiler, identified as Ajax Boiler #2, installed in June 2003, with a rated capacity of 6.3 MMBtu per hour, with emissions exhausted through exhausting to Stack 8. [326 IAC 6-2]
 - (e)(5) Two (2) natural gas-fired fueled water heaters, identified as EU39 and EU48, installed in June 2005, with heat input capacities of 0.199 MMBtu per hour and 0.370 MMBtu per hour, respectively. [326 IAC 6-2]

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

* * * *

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (e)(a) One (1) dry ingredient storage and conveyance system, including, but not limited to, pneumatic conveyance process equipment and piping, storage silos, use bins, weigh scale hoppers, ingredient mixers, transfer equipment, other process equipment and piping, and associated pollution control equipment, installed in April 2002 and approved in 2012 for modification, with a maximum throughput of 16,500 20,130 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
 - (1) Three (3) Two (2) flour storage silos, identified as emission units EU01, and EU02 and EU03, installed in December 1995, and May 2001 and April 2002, respectively, with EU01 and EU02 each equipped with a baghouse and EU03 tied to one (1) central dust collector unit for control of particulate matter emissions, and exhausting outside.
 - (2) One (1) flour storage silo, identified as emission unit EU03, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside.
 - (2)(3) One (1) sugar storage silo, identified as emission unit EU04, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, and exhausting outside.
 - (3)(4) One (1) dextrose storage silo, identified as emission unit EU05, installed in April 2002, tied to one (1) central dust collector unit for control of particulate matter emissions, and exhausting outside.
 - (5) Five (5) use bins, identified as emission units EU06, EU07, EU10, EU11, and EU14, installed in 2002 and approved in 2012 for modification, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.

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TSD for Significant Source Modification No.: 063-31357-00031
TSD for Significant Permit Modification No.: 063-31381-00031

Maplehurst Bakeries, Inc. Brownsburg, Indiana Permit Reviewer: John Haney

- (4)(6) Thirteen (13) Eight (8) use bins, identified as emission units EU06 EU08, EU09, EU12, EU13, and EU15 through EU18, installed in 2002, with each use bin tied to one (1) central dust collector unit for control of particulate matter emissions, exhausting outside inside.
- (5)(7) Fifteen (15) dry ingredient scale hoppers, identified as emission units EU19 through EU33, installed in 2002, with each scale hopper equipped with one (1) filter unit for control of particulate matter emissions, exhausting outside inside.
- (8) Two (2) dry ingredient scale hoppers/mixers, identified as EU73 and EU74, approved in 2012 for construction, each equipped with one (1) dust collector unit for control of particulate matter emissions, exhausting inside.

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

D.3.1 Avoidance Limits for PSD and Nonattainment NSR [326 IAC 2-2] [326 IAC 2-1.1-5]

The PM and $PM_{2.5}$ emissions from the following operations shall not exceed the emission limits listed in the table below:

Emission Unit	PM Limit (lb/hr)	PM _{2.5} Limit (lb/hr)
Flour Silo (EU01) - Loading	0.92	0.92
Flour Silo (EU02) - Loading	0.92	0.92
Flour Silo (EU03) - Loading	0.44	0.44
Sugar Silo (EU04) - Loading	0.44	0.44
Dextrose Silo (EU05) - Loading	0.44	0.44

Compliance with these limits, combined with the potential to emit PM and PM_{2.5} from other emission units at the source, shall limit the PM emissions to less than 250 tons per twelve (12) consecutive month period and the PM_{2.5} emissions to less than 100 tons per twelve (12) consecutive month period from the entire source. This shall render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.

D.3.42 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emissions from each of the dry ingredient storage and conveyance emission units shall not exceed the allowable PM emission rate as listed in the table below:

Process / Emission Unit	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lb/hr)
Flour Silos - Loading (EU01, EU02, EU03)	25 (each)	35.4 (each)
Minor Ingredient Silos - Loading (EU04, EU05)	25 (each)	35.4 (each)
Flour Silos - Conveying (EU01, EU02)	2.937 (each)	8.44 (each)
Flour Silo - Conveying (EU03)	1.397	5.13
Minor Ingredient Silos - Conveying (EU04, EU05)	1.397 (each)	5.13 (each)
Seventeen (17) Scale Hoppers (EU19-EU33, EU73, EU74)	10.065 (each)	19.3 (each)

The Each pound per hour limitation was calculated with the following equation:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates 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

Emission Unit Type	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lb/hr)
Flour Silos (3)	6	13.62
Minor Ingredient Silos (2)	2.25	7.06
Use Bins (13)	8.25	16.86
Scale Hoppers (17)	8.25	16.86

D.3.2 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

The Permittee shall control fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on April 6, 2009.

* * * * *

D.3.4 Particulate Control [326 IAC 6-3-2]

- (a) In order to comply with Condition D.3.1, particulate from the flour silos, EU01 and EU02, shall be controlled by a baghouse at all times that each flour silo is in operation being loaded.
- (b) In order to comply with the allowable rate of emission Condition D.3.1, particulate from the remaining flour silo (EU03), and the minor ingredient silos (EU04 and EU05) and use bins shall be controlled by the central dust collector unit at all times that each any of these units are in operation being loaded.
- (c) In order to comply with the allowable rate of emission, particulate from each scale hopper shall be controlled by a dry filter unit at all times that each of these units are in operation.

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- (dc) In the event that bag failure is observed in a multi-compartment baghouse unit, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (e) In order to comply with the allowable rate of emission, particulate from the remaining flour silo (EU03), minor ingredient silos and use bins shall be controlled by the central dust collector unit at all times that each of these units are in operation.
- (f) In order to comply with the allowable rate of emission, particulate from each scale hopper shall be controlled by a dry filter unit at all times that each of these units are in operation.

D.3.5 Visible Emissions Notations [40 CFR 64]

* * * * *

D.3.6 Parametric Monitoring

(a) The Permittee shall monitor the pressure alarms to the 13-qty Use Bins and 4517-qty Scale Hoppers continuously with the Control System over the Batching Area. When either the low pressure "No Convey Alarm" or high pressure "High Pressure Alarm Check Filters to Mixer XX" alarm is active during production, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. An active alarm during production is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

* * * * *

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

Part 70 Quarterly Report

Source Name: Maplehurst Bakeries, Inc.

Source Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112 Mailing Address: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Part 70 Permit No.: T063-28023-00031

Facility: Seven (7) Bakery Lines Moline I, Moline II, Moline IV, Moline V,

Moline VI, and Moline VIII

Parameter: Volatile Organic Compounds (VOC)

Limit: Twenty-four and four tenths (24.4) tons per year each, according to the

equations: for Moline I, Moline II, Moline III, Moline IV, and Moline V

40.1 tons per year, for Moline VI 60.7 tons per year, for Moline VIII

Compliance with these VOC limits shall be determined by the following equation:

 $\sum_{i=1}^{n} \left(\sum_{i=1}^{n} E_{i} * B_{i}\right)$

1.1 $\mathbf{x} \sum_{m=1}^{12} \left(\sum_{i=1}^{n} \frac{Ei * Bi}{2000 lb / ton} \right)_{m} \le 24.4 \text{ tons of VOC per twelve consecutive month period}$

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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Month	Unit ID	Column 1	Column 2	Column 1 + Column 2
WOITH	Official	This Month	Previous 11 Months	12 Month Total
	Moline I			
	Moline II			
	Moline III			
Month 1	Moline IV			
	Moline V			
	Moline VI			
	Moline VIII			
	Moline I			
	Moline II			
	Moline III			
Month 2	Moline IV			
	Moline V			
	Moline VI			
	Moline VIII			
	Moline I			
	Moline II			
	Moline III			
Month 3	Moline IV			
	Moline V			
	Moline VI			
	Moline VIII			

* * * * *

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 063-31357-00031 and Significant Permit Modification No. 063-31381-00031. The staff recommends to the Commissioner that this Part 70 Significant Source Modification and Significant Permit Modification be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to John Haney 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) 234-5328 or toll free at 1-800-451-6027 extension 4-5328.
- (b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations **Emissions Summary**

Company Name: Maplehurst Bakeries, Inc. Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031 Permit Reviewer: John Haney Date: April 10, 2012

UNCONTROLLED POTENTIAL TO EMIT (tons/yr)

	nission Units	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	voc	со	Single HAP (Acetaldehyde)	Total HAPs	GHGs (as CO₂e)
5	Silo Loading	138.42	48.49	48.49	0	0	0.00	0	0.00	0.00	0
Dry Ingre	edient Conveyance	163.85	55.49	55.49	0	0	0.00	0	0.00	0.00	0
	Proofing	0	0	0	0	0	3.84	0	0.12	0.12	0
Moline I	Fermentation	0	0	0	0	0	38.36	0	1.15	1.15	0
Moline I	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	3.65	0	0.11	0.11	0
Malina II	Fermentation	0	0	0	0	0	36.49	0	1.09	1.09	0
Moline II	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	3.71	0	0.11	0.11	0
Moline III	Fermentation	0	0	0	0	0	37.11	0	1.11	1.11	0
wone iii	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	3.52	0	0.11	0.11	0
Moline IV	Fermentation	0	0	0	0	0	35.24	0	1.06	1.06	0
Moline IV	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	3.59	0	0.11	0.11	0
Malias V	Fermentation	0	0	0	0	0	35.87	0	1.08	1.08	0
Moline V	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	3.65	0	0.11	0.11	0
Moline VI	Fermentation	0	0	0	0	0	36.49	0	1.09	1.09	0
Moline vi	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
Moline VII*	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
Monne vii	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	5.52	0	0.17	0.17	0
Moline VIII**	Fermentation	0	0	0	0	0	55.18	0	1.66	1.66	0
	Frying	2.19	2.58	2.58	0	0	0.84	0	0.00	0.00	0
Insigr	nificant Activities	0.27	1.07	1.07	0.08	14.03	0.77	11.79	0.00	0.26	16,943
PLAN	IT-WIDE TOTAL	314.92	119.89	119.89	0.11	17.94	307.96	15.07	9.07	9.41	21,661
Fugiti	ve Emissions***	57.78	11.27	11.27	0	0	0	0	0	0	0
Total with	r Fugitive Emissions	372.70	131.16	131.16	0.11	17.94	307.96	15.07	9.07	9.41	21,661

LIMITED POTENTIAL TO EMIT (tons/yr)

	ENTIAL TO EMIT (tons/y	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	voc	со	Single HAP (Acetaldehyde)	Total HAPs	GHGs (as CO₂e)
Ç	Silo Loading	13.84	48.49	13.84	0	0	0.00	0	0.00	0.00	0
Dry Ingr	edient Conveyance	163.85	55.49	55.49	0	0	0.00	0	0.00	0.00	0
	Proofing	0	0	0	0	0	24.4	0	0.12	0.12	0
Moline I	Fermentation	0	0	0	0	0	24.4	0	1.15	1.15	0
Monre i	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	24.4	0	0.11	0.11	0
Moline II	Fermentation	0	0	0	0	0	24.4	0	1.09	1.09	0
Moline II	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	24.4	0	0.11	0.11	0
Moline III	Fermentation	0	0	0	0	0	24.4	0	1.11	1.11	0
Monrie III	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	24.4	0	0.11	0.11	0
Moline IV	Fermentation	0	0	0	0	0	24.4	0	1.06	1.06	0
woline iv	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.011	674
	Proofing	0	0	0	0	0	24.4	0	0.11	0.11	0
Malian V	Fermentation	0	0	0	0	0	24.4	0	1.08	1.08	0
Moline V	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	40.4	0	0.11	0.11	0
Malina M	Fermentation	0	0	0	0	0	40.1	0	1.09	1.09	0
Moline VI	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
Moline VII*	Frying	1.45	1.71	1.71	0	0	0.56	0	0.00	0.00	0
Moline VII	Natural Gas Combustion	0.01	0.04	0.04	0.003	0.56	0.03	0.47	0.00	0.01	674
	Proofing	0	0	0	0	0	CO 7	0	0.17	0.17	0
Moline VIII**	Fermentation	0	0	0	0	0	60.7	0	1.66	1.66	0
	Frying	2.19	2.58	2.58	0	0	0.84	0	0.00	0.00	0
Insig	nificant Activities	0.27	1.07	1.07	0.08	14.03	0.77	11.79	0.00	0.26	16,943
PLAN	IT-WIDE TOTAL	190.34	119.89	85.24	0.11	17.94	228.54	15.07	9.07	9.41	21,661
Fugit	ive Emissions***	52.84	10.30	10.30	0	0	0	0	0	0	0
Total witl	n Fugitive Emissions	243.18	130.19	95.54	0.11	17.94	228.54	15.07	9.07	9.41	21,661

^{*} Moline VII produces either (1) unfried yeast donuts which are frozen without proofing, or (2) chemically leavened fried cake donuts which are then frozen. Moline VII does not produce emissions due to proofing and/or fermentation.

** The fryer for Moline VIII is electric and does not produce emissions due to natural gas combustion.

*** Fugitive emissions are based upon the Technical Support Document (TSD) for Part 70 Operating Permit No. T063-28023-00031.

Appendix A: Emissions Calculations Particulate Emissions from Silo Loading

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031 Permit Reviewer: John Hanev

Date: April 10, 2012

The following calculations determine the emissions from the pneumatic filling of the flour and minor ingredient silos.

Control Device Efficiency:

Limited: 90% Actual: 99%

		Maxi	Maximum		nission Facto	ors	Uncontrolled								
Emissio	on Unit	Capa	Capacity		Capacity		Capacity		Capacity		PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
ID#	Description	lb/hr	tons/hr	lb/ton	lb/ton	lb/ton	tons/yr	tons/yr	tons/yr						
EU01	Flour Silo	4,875	2.438	3.14	1.10	1.10	33.52	11.74	11.74						
EU02	Flour Silo	4,875	2.438	3.14	1.10	1.10	33.52	11.74	11.74						
EU03	Flour Silo	2,250	1.125	3.14	1.10	1.10	15.47	5.42	5.42						
EU04	Minor Ingredient Silo	2,250	1.125	3.14	1.10	1.10	15.47	5.42	5.42						
EU05	Minor Ingredient Silo	2,250	2,250 1.125		1.10	1.10	15.47	5.42	5.42						
	Total	16 500		Fmission	s Refore the	Modification	113 46	39.75	39.75						

		Maxii	mum	Emission Factors			Uncontrolled			Lim	ited	Controlled		
Emissio	n Unit	Capacity		PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}	PM	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
ID#	Description	lb/hr	tons/hr	lb/ton	lb/ton	lb/ton	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
EU01	Flour Silo	5,873	2.937	3.14	1.10	1.10	40.39	14.15	14.15	4.04	4.04	0.40	0.14	0.14
EU02	Flour Silo	5,873	2.937	3.14	1.10	1.10	40.39	14.15	14.15	4.04	4.04	0.40	0.14	0.14
EU03	Flour Silo	2,794.5	1.397	3.14	1.10	1.10	19.22	6.73	6.73	1.92	1.92	0.19	0.07	0.07
EU04	Minor Ingredient Silo	2,794.5	1.397	3.14	1.10	1.10	19.22	6.73	6.73	1.92	1.92	0.19	0.07	0.07
EU05	Minor Ingredient Silo	2,794.5	1.397	3.14	1.10	1.10	19.22	6.73	6.73	1.92	1.92	0.19	0.07	0.07
	Total	20 130		Fmissic	ne After the	Modification	138 //2	48 49	18 10	13.84	13.84			

Emissions Increase Due to the Modification (Silos) 24.96 8.74 8.74

Allowable Emissions:
The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

Silos:	P= limit =	25 tons/hr 4.1 x (25 ^0.67) =		35.4 lb/hr	(allowable)
with uncontrolled potential (flour silos EU01/EU02 40.39 tons/yr x	') :	2000 lb/ton /		8760 hr/yr =	hr/yr =	9.22 lb/hr	(capable of complying)
with uncontrolled potential (flour silo EU03 and m 19.22 tons/yr x	nor ingredi	ent silos) 2000 lb/ton /		8760 hr/yr =	hr/yr =	4.39 lb/hr	(capable of complying)

Each silo can be filled pneumatically by tanker trucks at a rate of 25 tons per hour. This is the process weight rate of the silo for purposes of determining compliance with 326 IAC 6-3-2.

Each silo is bottlenecked by the amount of dry ingredient that can be conveyed pneumatically out of the silo. This is the maximum capacity of the silo for purposes of determining compliance with 326 IAC 2-2. The emission factors are from AP-42, Ch. 11.12, Table 11.12-2 for cement unloading (SCC# 3-05-011-17).

PM_{2.5} has been assumed to be equal to PM₁₀.

Actual emissions based on 6864 actual hours of operation per year (5.5 day/wk * 24 hr/day * 52 weeks/yr).

Methodology:

Maximum Capacity (tons/hr) = Maximum Capacity (lb/hr) ÷ 2000 lb/ton

Uncontrolled Emissions (tons/yr) = Maximum Capacity (tons/hr) * Emission Factor (lb/ton) * 8760 hr/yr ÷ 2000 lb/ton

Limited PM/PM₁₀/PM_{2.5} Emissions (tons/yr) = Uncontrolled PM Emissions (tons/yr) * (1 - Limited Control Efficiency)

Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) * (1 - Actual Control Efficiency)

Emissions Increase Due to the Modification = Emissions After the Modification - Emissions Before the Modification

Appendix A: Emissions Calculations Particulate Emissions from Dry Ingredient Conveyance

Company Name: Maplehurst Bakeries, Inc.
Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112
Significant Source Modification No.: 063-31387-00031
Significant Permit Modification No.: 063-31381-00031

Permit Reviewer: John Haney Date: April 10, 2012

The following calculations determine the emissions from the pneumatic conveyance of the dry ingredients from the silos to the mixers.

Control Device Efficiency: 99%

		Maxii	num	En	nission Facto	ors	Uncontrolled			
Emission	Emission Unit Capacity		PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}		
ID#	Description	lb/hr	tons/hr	lb/ton	lb/ton	lb/ton	tons/yr	tons/yr	tons/yr	
EU01	Flour Silo	4,875	2.438	3.14	1.10	1.10	33.52	11.74	11.74	
EU02	Flour Silo	4,875	2.438	3.14	1.10	1.10	33.52	11.74	11.74	
EU03	Flour Silo	2,250	1.125	3.14	1.10	1.10	15.47	5.42	5.42	
EU04	Minor Ingredient Silo	2,250	1.125	3.14	1.10	1.10	15.47	5.42	5.42	
EU05	Minor Ingredient Silo	2,250	1.125	3.14	1.10	1.10	15.47	5.42	5.42	
EU06-EU18	Use Bins (13)	16,500 8.250		0.0048	0.0028	0.0028	0.17	0.10	0.10	
EU19-EU33, EU73, EU74 Scale Hoppers/Mixers (15) 16,500 8.25		8.250	0.572	0.156	0.156	20.67	5.64	5.64		
				Emissions	134.31	45.49	45.49			

		Maxii	mum	Emission Factors				Uncontrolled		Controlled		
Emission	Jnit	Capacity		PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
ID#	Description	lb/hr	tons/hr	lb/ton	lb/ton	lb/ton	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
EU01	Flour Silo	5,873	2.937	3.14	1.10	1.10	40.39	14.15	14.15	0.40	0.14	0.14
EU02	Flour Silo	5,873	2.937	3.14	1.10	1.10	40.39	14.15	14.15	0.40	0.14	0.14
EU03	Flour Silo	2,794.5	1.397	3.14	1.10	1.10	19.22	6.73	6.73	0.19	0.07	0.07
EU04	Minor Ingredient Silo	2,794.5	1.397	3.14	1.10	1.10	19.22	6.73	6.73	0.19	0.07	0.07
EU05	Minor Ingredient Silo	2,794.5	1.397	3.14	1.10	1.10	19.22	6.73	6.73	0.19	0.07	0.07
EU06-EU18	Use Bins (13)	20,130	10.065	0.0048	0.0028	0.0028	0.21	0.12	0.12	0.002	0.001	0.001
EU19-EU33, EU73, EU74	Scale Hoppers/Mixers (17)	20,130 10.065		0.572	0.156	0.156	25.22	6.88	6.88	0.25	0.07	0.07
			•	Emissio	ns After the	Modification	163.85	55.49	55.49			

Allowable Emissions:

The use bins are exempt from 326 IAC 6-3-2 because, pursuant to 326 IAC 6-3-1(b)(14), each bin has potential particulate emissions less than 0.551 lb/hr.

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

Flour Silos (EU01, EU02):	P= 2.937 ton	s/hr				
1.104.01.00 (200.), 2002/.	limit = 4.1 x (2.937 ^0.67)	=	8.44 lb/hr	lb/hr	(allowable)
with uncontrolled potential: 19.22 tons/yr x	2000 lb/ton /	8760 hr/yr =	hr/yr =	4.39 lb/hr	lb/hr	(capable of complying)
Flour Silo (EU03) & Minor Ingredient Silos:	P= 1.397 ton limit = 4.1 x (ns/hr 1.397 ^0.67)	=	5.13 lb/hr	lb/hr	(allowable)
with uncontrolled potential: 19.22 tons/yr x	2000 lb/ton /	8760 hr/yr =	hr/yr =	4.39 lb/hr	lb/hr	(capable of complying)
Scale Hoppers/Mixers:	P= 10.065 ton limit = 4.1 x (ns/hr 10.065 ^0.67)	=	19.3 lb/hr	lb/hr	(allowable)
with uncontrolled potential: 25.22 tons/yr x	2000 lb/ton /	8760 hr/yr =	hr/yr =	5.76 lb/hr	lb/hr	(capable of complying)

Notes

Each silo is bottlenecked by the amount of dry ingredient that can be conveyed pneumatically from the silo. This is the maximum capacity used for purposes of determining compliance with 326 IAC 2-2.

The emission factors are from AP-42, Ch. 11.12, Table 11.12-2 (February 2011 revisions) for cement unloading (SCC# 3-05-011-17), hopper loading (SCC# 3-05-011-08), and mixer loading (SCC# 3-05-011-09).

PMg.₂ has been assumed to be equal to PM₁₀.

Actual emissions based on 6864 actual hours of operation per year (5.5 day/wk * 24 hr/day * 52 weeks/yr).

Methodology:

Maximum Capacity (tons/hr) = Maximum Capacity (toh/hr) \div 2000 lb/ton Uncontrolled Emissions (tons/yr) = Maximum Capacity (tons/hr) * Emission Factor (lb/ton) * 8760 hr/yr \div 2000 lb/ton Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) * (1 - Actual Control Efficiency) Emissions Increase Due to the Modification = Emissions After the Modification - Emissions Before the Modification Emissions Date Sefore the Modification - Emissions After the Modification - Emissions Enforce - Emission - Emissio

Appendix A: Emissions Calculations VOC Emissions from Fermentation (Released at the Fryer)

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031
Significant Permit Modification No.: 063-31381-00031
Permit Reviewer: John Haney

Date: April 10, 2012

								Emission	Pot	ential
								Factor	Emi	ssions
		Maximum	Maximum	Average	Ferm		Spike			
Bakery		Capacity	Throughput	Sponge	Time	Dough	Time	VOC	VOC	Acetaldehyde
Line	Product	(lb/hr)	(tons/yr)	% Yeast	Hours	% Yeast	Hours	(lb/ton)	(tons/yr)	(tons/yr)
Moline I	yeast product	3,000	13,140.00	3.9	1.2	0.0	0.0	5.84	38.36	1.15
Moline II	yeast product	3,000	13,140.00	3.6	1.2	0.0	0.0	5.55	36.49	1.09
Moline III	yeast product	3,000	13,140.00	3.7	1.2	0.0	0.0	5.65	37.11	1.11
Moline IV	yeast product	3,000	13,140.00	3.4	1.2	0.0	0.0	5.36	35.24	1.06
Moline V	yeast product	3,000	13,140.00	3.5	1.2	0.0	0.0	5.46	35.87	1.08
Moline VI	yeast product	3,000	13,140.00	3.6	1.2	0.0	0.0	5.55	36.49	1.09
Moline VII	yeast/cake product	3,000	13,140.00	0.0	0.0	0.0	0.0	see note	0.00	0.00
Moline VIII	yeast product	4,537	19,872.06	3.6	1.2	0.0	0.0	5.55	55.18	1.66

Notes:

Moline VII produces either (1) unfried yeast donuts which are frozen without proofing, or (2) chemically leavened fried cake donuts which are then frozen. Moline VII does not produce emissions due to proofing and/or fermentation.

Methodology:

Maximum Throughput (tons/yr) = Maximum Capacity (lb/hr) * 8760 hr/yr÷ 2000 lb/ton Potential Emissions (tons/yr) = Maximum Throughput (tons/yr) * Emission Factor (lb/ton)÷ 2000 lb/ton

The process VOC emission calculations for the dough fermentation are based upon the following EPA recommended bakery oven emissions: AP-42 Section 9.9.6

VOC = 0.95Yi + 0.195ti - 0.51S - 0.86ts + 1.90

where: Yi = initial baker's percent of yeast to the nearest tenth

ti = total yeast action time in hours to the nearest tenth S = final (spike) baker's percent of yeast to the nearest tenth

ts = spiking time in hours to the nearest tenth

VOCs emitted during fermentation (leavening) are assumed to be 97% ethanol and 3% acetaldehyde (VOC/HAP), based on the following document and supporting information:

- 1. "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017. December 1992)
- 2. Henderson D.C., 1977 "Commercial Bakeries as a Major Source of Reactive Volatile Organic Gases", U.S. EPA, Region XI Surveillance and Analysis Division

Appendix A: Emissions Calculations VOC and HAP Emissions Proof Boxes

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031
Significant Permit Modification No.: 063-31381-00031
Permit Reviewer: John Haney

Date: April 10, 2012

		Uncontrolled	Uncontrolled	Uncontrolled	Limited
		Potential	Potential	Potential	VOC Emissions
		VOC	VOC	Acetaldehyde	from Fermentation
		from Fermentation	from Proofing	from Proofing	and Proofing
Fryer	Product	(tons/year)	(tons/year)	(tons/year)	(tons/year)
Moline I	yeast product	38.36	3.84	0.12	24.4
Moline II	yeast product	36.49	3.65	0.11	24.4
Moline III	yeast product	37.11	3.71	0.11	24.4
Moline IV	yeast product	35.24	3.52	0.11	24.4
Moline V	yeast product	35.87	3.59	0.11	24.4
Moline VI	yeast product	36.49	3.65	0.11	40.1
Moline VII	yeast/cake product	0.00	0.00	0.00	n/a
Moline VIII	yeast product	55.18	5.52	0.17	60.7

Notes:

Moline VII produces either (1) unfried yeast donuts which are frozen without proofing, or (2) chemically leavened fried cake donuts which are then frozen. Moline VII does not produce emissions due to proofing and/or fermentation.

VOC emissions from proofing shall be assumed to be 10% of the emissions calculated for fermentation based on the following document:

"Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017. December 1992)

VOCs emitted during fermentation (leavening) are assumed to be 97% ethanol and 3% acetaldehyde (VOC/HAP), based on the following document and supporting information:

- 1. "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017. December 1992)
- 2. Henderson D.C., 1977 "Commercial Bakeries as a Major Source of Reactive Volatile Organic Gases", U.S. EPA, Region XI Surveillance and Analysis Division

Methodology:

VOC Emissions from Proofing (tons/yr) = 0.10 * Fermentation Emissions (tons/yr)
Acetaldehyde Emissions from Proofing (tons/yr) = 0.03 * VOC Emissions from Proofing (tons/yr)

Appendix A: Emissions Calculations Particulate and VOC Emissions Frying

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031 Permit Reviewer: John Haney

Date: April 10, 2012

		Maximum	Maximum		Emission Factors			Potential Emissions			
		Capacity	Throughput	PM	PM ₁₀	PM _{2.5}	VOC	PM	PM ₁₀	PM _{2.5}	VOC
Fryer	Product	lb/hr	tons/yr	lb/ton	lb/ton	lb/ton	lb/ton	tons/yr	tons/yr	tons/yr	tons/yr
Moline I	yeast product	3,000	13,140.00	0.22	0.26	0.26	0.085	1.45	1.71	1.71	0.56
Moline II	yeast product	3,000	13,140.00	0.22	0.26	0.26	0.085	1.45	1.71	1.71	0.56
Moline III	yeast product	3,000	13,140.00	0.22	0.26	0.26	0.085	1.45	1.71	1.71	0.56
Moline IV	yeast product	3,000	13,140.00	0.22	0.26	0.26	0.085	1.45	1.71	1.71	0.56
Moline V	yeast product	3,000	13,140.00	0.22	0.26	0.26	0.085	1.45	1.71	1.71	0.56
Moline VI	yeast product	3,000	13,140.00	0.22	0.26	0.26	0.085	1.45	1.71	1.71	0.56
Moline VII	cake product	3,000	13,140.00	0.22	0.26	0.26	0.085	1.45	1.71	1.71	0.56
Moline VIII	yeast product	4,537	19,872.06	0.22	0.26	0.26	0.085	2.19	2.58	2.58	0.84

Allowable Emissions:

The fryers are exempt from 326 IAC 6-3-2 because, pursuant to 326 IAC 6-3-1(b)(14), each fryer has potential particulate emissions less than 0.551 lb/hr.

Notes:

Emission factors are based on AP-42, Ch. 9.13, Tables 9.13.3-2 and 9.13.3-3 for snack chip deep frying with standard mesh pad mist eliminator. PM_{2.5} has been assumed to be equal to PM₁₀.

Methodology:

Maximum Throughput (tons/yr) = Maximum Capacity (lb/hr) * 8760 hr/yr ÷ 2000 lb/ton Potential Emissions (tons/yr) = Maximum Throughput (tons/yr) * Emission Factor (lb/ton) ÷ 2000 lb/ton

Appendix A: Emissions Calculations Natural Gas Combustion Only MMBtu/hr <100 Fryers

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031
Significant Permit Modification No.: 063-31381-00031
Permit Reviewer: John Haney

Date: April 10, 2012

Maximum

Heat Input Capacity per Fryer

(MMBtu/hr)

HHV MMBtu MMscf

1020

Potential Throughput

(MMcf/yr) 11.16

		Pollutant						
	PM*	PM ₁₀ *	direct PM _{2.5} *	SO ₂	NO _x	VOC	CO	
Emission Factor (lb/MMcf)	1.9	7.6	7.6	0.6	100	5.5	84	
					**see below			
Potential Emissions (tons/yr)	0.01	0.04	0.04	0.003	0.56	0.03	0.47	

^{*} PM emission factor is filterable PM only. PM₁₀ emission factor is filterable and condensable PM₁₀ combined.

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/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr ÷ HHV (MMBtu/MMscf)

Potential Emissions (tons/yr) = Potential Throughput (MMcf/yr) x Emission Factor (lb/MMcf) ÷ 2,000 lb/ton

See page 8 for HAPs emissions calculations.

PM_{2.5} emission factor is filterable and condensable PM_{2.5} combined.

^{**} Emission factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Appendix A: Emissions Calculations Natural Gas Combustion Only MMBtu/hr <100 Fryers I, II, and III HAPs Emissions

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031
Significant Permit Modification No.: 063-31381-00031
Permit Reviewer: John Haney

Date: April 10, 2012

	HAPs - Organics					
Emission Factor (lb/MMcf)	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	
Potential Emissions (tons/yr)	1.172E-05	6.699E-06	4.187E-04	1.005E-02	1.898E-05	

	HAPs - Metals						
	Lead	Cadmium	Chromium	Manganese	Nickel		
Emission Factor (lb/MMcf)	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03		
Potential Emissions (tons/yr)	2.791E-06	6.141E-06	7.815E-06	2.121E-06	1.172E-05		

TOTAL HAPs 1.053E-02

Methodology:

Methodology is the same as page 7.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

See Page 9 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations Natural Gas Combustion Only MMBtu/hr <100 Fryers I, II, and III Greenhouse Gas Emissions

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031

Permit Reviewer: John Haney

Date: April 10, 2012

		Greenhouse Gas	
	CO ₂	CH₄	N ₂ O
Emission Factor (lb/MMcf)	120,000	2.3	2.2
Potential Emissions (tons/yr)	670	0.0	0.0
Summed Potential Emissions (tons/yr)		670	
CO ₂ e Total (tons/yr)		674	

Notes:

The N_2O emission factor for uncontrolled is 2.2. The N_2O emission factor for low NO_x burner is 0.64. The emission factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. The Greenhouse Warming Potentials (GWP) are from Table A-1 of 40 CFR Part 98 Subpart A.

Methodology:

Potential Emissions (tons/yr) = Potential Throughput (MMcf/yr) x Emission Factor (lb/MMcf) ÷ 2,000 lb/ton CO₂e (tons/yr) = [CO₂ Potential Emissions (tons/yr) * CO₂ GWP (1)] + [CH₄ Potential Emissions (tons/yr) * CH₄ GWP (21)] + [N₂O Potential Emissions (tons/yr) * N₂O GWP (310)]

Appendix A: Emissions Calculations Natural Gas Combustion Only MMBtu/hr <100 Insignificant Activities

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031

Date: April 10, 2012

Permit Reviewer: John Haney

Maximum
Heat Input Capacity
(MMBtu/hr)
32.681

HHV MMBtu MMscf 1020

Potential Throughput MMCF/yr 280.7

	Pollutant						
	PM*	PM ₁₀ *	direct PM _{2.5} *	SO ₂	NO _x	VOC	CO
Emission Factor (lb/MMcf)	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emissions (tons/yr)	0.27	1.07	1.07	0.08	14.03	0.77	11.79

^{*} PM emission factor is filterable PM only. PM₁₀ emission factor is filterable and condensable PM₁₀ combined.

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/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr ÷ HHV (MMBtu/MMscf)

Potential Emissions (tons/yr) = Potential Throughput (MMcf/yr) x Emission Factor (lb/MMcf) ÷ 2,000 lb/ton

See page 11 for HAPs emissions calculations.

PM_{2.5} emission factor is filterable and condensable PM_{2.5} combined.

^{**} Emission factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Appendix A: Emissions Calculations Natural Gas Combustion Only MMBtu/hr <100 Insignificant Activities HAPs Emissions

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031
Significant Permit Modification No.: 063-31381-00031
Permit Reviewer: John Haney

Date: April 10, 2012

	HAPs - Organics						
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene		
Emission Factor (lb/MMcf)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03		
Potential Emissions (tons/yr)	2.947E-04	1.684E-04	1.053E-02	2.526E-01	4.771E-04		

	HAPs - Metals						
	Lead	Cadmium	Chromium	Manganese	Nickel		
Emission Factor (lb/MMcf)	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03		
Potential Emissions (tons/yr)	7.017E-05	1.544E-04	1.965E-04	5.333E-05	2.947E-04		

TOTAL HAPs 2.648E-01

Methodology is the same as page 10.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

See Page 12 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations Natural Gas Combustion Only MMBtu/hr <100 Insignificant Activities Greenhouse Gas Emissions

Company Name: Maplehurst Bakeries, Inc.

Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031

Permit Reviewer: John Haney

Date: April 10, 2012

		Greenhouse Gas		
	CO ₂	CH ₄	N ₂ O	
Emission Factor (lb/MMcf)	120,000	2.3	2.2	
Potential Emissions (tons/yr)	16,840	0.3	0.3	
Summed Potential Emissions (tons/yr)	16,841			
CO ₂ e Total (tons/yr)		16,943		

Notes:

The N_2O emission factor for uncontrolled is 2.2. The N_2O emission factor for low NO_x burner is 0.64. The emission factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. The Greenhouse Warming Potentials (GWP) are from Table A-1 of 40 CFR Part 98 Subpart A.

Methodology:

Potential Emissions (tons/yr) = Potential Throughput (MMcf/yr) x Emission Factor (lb/MMcf) \div 2,000 lb/ton CO₂e (tons/yr) = [CO₂ Potential Emissions (tons/yr) * CO₂ GWP (1)] + [CH₄ Potential Emissions (tons/yr) * CH₄ GWP (21)] + [N₂O Potential Emissions (tons/yr) * N₂O GWP (310)]

Indiana Department of Environmental Management Office of Air Quality

Appendix B Best Available Control Technology (BACT) Determination

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification

Source Background and Description

Source Name: Maplehurst Bakeries, Inc.

Source Location: 50 Maplehurst Drive, Brownsburg, IN 46112

County: Hendricks SIC Code: 2051

Operation Permit No.: T063-28023-00031
Operation Permit Issuance Date: October 2, 2009
Significant Source Modification No.: 063-31357-00031
Significant Permit Modification No.: 063-31381-00031
Permit Reviewer: John Haney

Background Information

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for the existing commercial bakery operation of Maplehurst Bakeries, Inc. (Maplehurst) located at 50 Maplehurst Drive, Brownsburg, Indiana 46112. The following emission units each have potential emissions of volatile organic compounds (VOCs) of twenty-five (25) tons or more per year. Pursuant to the provisions of 326 IAC 8-1-6, Best Available Control Technology analyses for VOC were performed for these units:

- (g) One (1) donut production line, identified as Moline VI, installed in February 2002, with a maximum production rate of 3,000 pounds per hour of premix dough and water, consisting of the following:
 - (1) One (1) proof box, identified as Proof6.
 - (2) One (1) natural gas-fired fryer, identified as Fryer6, with a maximum heat input capacity of 1.3 MMBtu per hour, exhausting to Stack 4.
- (i) One (1) donut production line, identified as Moline VIII, approved in 2012 for construction, with a maximum production rate of 4,537 pounds of dough per hour, consisting of the following:
 - (1) One (1) proof box, identified as Proof8.
 - (2) One (1) electric fryer, identified as Fryer8, exhausting to Stack 11.

Note: Each donut line is considered one facility for evaluation of 326 IAC 8-1-6.

IDEM, OAQ is performing an evaluation pursuant to the 326 IAC 8-1-6 for the existing Moline VI line, based on the following:

- (a) Before 2009, Maplehurst was not required to limit VOC emissions from its donut production lines. However, after issuance of Part 70 Operating Permit No. T063-28023-00031 on October 2, 2009, 326 IAC 8-1-6 avoidance limits of 24.4 tons per twelve (12) consecutive month period from the fermentation process for each line were established to avoid the requirements of 326 IAC 8-1-6.
- (b) IDEM, OAQ has recently been incorporating VOC emissions from the proof boxes into a facility's potential to emit summary and considering a proof box and fryer to be one facility.
- (c) Maplehurst submitted quarterly reporting for its bakery lines on October 6, 2011, which showed Moline VI had actual emissions of 23.03 tons of VOC for the entire facility. With the inclusion of the emissions from the proof box identified as Proof6, Moline VI had actual emissions greater than 25 tons of VOC for the entire facility, showing noncompliance with 326 IAC 8-1-6.

IDEM, OAQ is performing an evaluation pursuant to the 326 IAC 8-1-6 for the proposed Moline VIII line, based on the following:

(a) The donut production line identified as Moline VIII will be constructed after January 1, 1980 and has potential to emit VOC greater than 25 tons per year.

IDEM, OAQ conducts BACT analyses in accordance with the "Top-Down" Best Available Control Technology Guidance Document outlined in the 1990 draft U.S. EPA New Source Review Workshop Manual, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below.

- (1) Identify all potentially available control options;
- (2) Eliminate technically infeasible control options;
- (3) Rank remaining control technologies;
- (4) Evaluate the most effective controls and document the results; and
- (5) Select BACT.

Also in accordance with the "Top-Down" Best Available Control Technology Guidance Document outlined in the 1990 draft U.S. EPA New Source Review Workshop Manual, BACT analyses take into account the energy, environmental, and economic impacts of the control options. Emission reductions may be determined through the application of available control techniques, process design, and/or operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause adverse environmental effects to public health and the environment.

VOC BACT Determination

Step One: Identify All Potentially Available Control Technologies

Based on the information reviewed for this BACT determination, the following potentially available control technologies were identified for controlling VOC emissions from the bread line BD1:

(a) Catalytic Oxidizer:

Catalytic oxidation is the process of oxidizing organic contaminants in a waste gas stream within a heated chamber containing a catalyst bed in the presence of oxygen for sufficient time to completely oxidize the organic contaminants to carbon dioxide and water. The catalyst is used to lower the activation energy of the oxidation reaction. The residence time, temperature, flow velocity and mixing, the oxygen concentration, and type of catalyst used in the combustion chamber affect the oxidation rate and destruction efficiency. Catalytic oxidizers typically require combustion of an

auxiliary fuel (e.g., natural gas) to maintain combustion chamber temperature high enough to completely oxidize the contaminant gases. Catalytic oxidizers operate at lower temperatures and require less fuel than thermal oxidizers, they have a smaller footprint, and they need little or no insulation. Catalytic oxidizers are typically designed to have a residence time of 0.5 seconds or less and combustion chamber temperatures between 600 and 1,200°F. The types of catalysts used include platinum, platinum alloys, copper chromate, copper oxide, chromium, manganese, and nickel. These catalysts are deposited in thin layers on an inert substrate, usually a honeycomb shaped ceramic.

The two types of catalytic oxidation systems include recuperative and regenerative catalytic oxidizers, which are differentiated by the type of heat recovery equipment used. In a recuperative catalytic oxidizer, the waste gas stream is preheated using the heat content of the treated gas stream, resulting in improved oxidizer efficiency and significant fuel cost savings. In a regenerative thermal oxidizer, a high-density media such as a packed ceramic bed, which was heated in a previous cycle, is used to preheat the incoming waste gas stream, resulting in improved oxidizer efficiency and significant fuel cost savings. VOC destruction efficiencies greater than 98% are achievable under certain operating conditions (EPA-453/R-92-017). However, based on the information reviewed for this BACT determination, a VOC destruction efficiency of 95% or a VOC outlet concentration of 10 ppmv or less is achievable on a consistent basis under normal operational conditions for a typical bread baking operation.

(b) Thermal Oxidizer:

Thermal oxidation is the process of oxidizing organic contaminants in a waste gas stream by raising the temperature above the auto-ignition point in the presence of oxygen for sufficient time to completely oxidize the organic contaminants to carbon dioxide and water. The residence time, temperature, flow velocity and mixing, and the oxygen concentration in the combustion chamber affect the oxidation rate and destruction efficiency. Thermal oxidizers typically require combustion of an auxiliary fuel (e.g., natural gas) to maintain combustion chamber temperature high enough to completely oxidize the contaminant gases. Thermal oxidizers are typically designed to have a residence time of one second or less and combustion chamber temperatures between 1,200 and 2,000°F.

The three types of thermal oxidation systems include direct flame, recuperative, and regenerative thermal oxidizers, which are differentiated by the type of heat recovery equipment used. A direct flame thermal oxidizer consists of only a combustion chamber with no heat recovery equipment. In a recuperative thermal oxidizer, the waste gas stream is preheated using the heat content of the treated gas stream, resulting in improved oxidizer efficiency and significant fuel cost savings. In a regenerative thermal oxidizer, a high-density media such as a packed ceramic bed, which was heated in a previous cycle, is used to preheat the incoming waste gas stream, resulting in improved oxidizer efficiency and significant fuel cost savings. In general, thermal oxidizers are less efficient at treating waste gas streams with highly variable flow rates since the variable flow rate results in varying residence times, combustion chamber temperature, and poor mixing. VOC destruction efficiencies greater than 98% are achievable under certain operating conditions (EPA-453/R-92-017). However, a VOC destruction efficiency of 95% is achievable on a consistent basis under normal operational conditions for a typical bakery operation.

(c) Wet Packed Bed Scrubber:

A wet packed bed scrubber is an absorption system in which a waste gas stream is interacted with a scrubbing liquid inside a contact chamber containing a bed of packing media in order to strip contaminant gases from the waste gas stream through the process of dissolution. Water is the most commonly used scrubbing liquid. Other solvents may be used depending on the components of the waste gas stream. Based on information reviewed for this BACT determination, a VOC destruction efficiency of 81% is achievable on a consistent basis under normal operational conditions for a typical bakery operation.

(d) Biofiltration:

Biofiltration is a process in which a waste gas stream is passed through a bed of peat, compost, bark, soil, gravel, or other inorganic media in order to strip organic contaminant gases from the waste gas stream through the process of dissolution in the bed moisture and adsorption to the bed media. Under aerobic conditions, microorganisms naturally present in the bed oxidize the organic contaminant gases within the bed to carbon dioxide, water, and additional biomass through metabolic processes. If the temperature of the waste gas stream is too high, the gas stream must be cooled to an optimum temperature before it can be treated in the biofilter in order to maintain the viability of the microorganisms. In addition, the bed must be monitored and maintained at an optimum moisture content and pH in order to prevent cracking of the bed media and to maintain the viability of the microorganisms.

(e) Carbon Adsorption Unit:

Carbon adsorption is a process by which VOC is retained on a granular carbon surface, which is highly porous and has a very large surface-to-volume ratio. Carbon adsorption systems can operate in two phases: adsorption and desorption. Adsorption is rapid and removes most of the VOCs in the stream. Eventually, the adsorbent becomes saturated with the vapors and the system's efficiency drops. The adsorbent must be regenerated or replaced soon after efficiency begins to decline. In regenerative systems, the adsorbent is reactivated with steam or hot air in order to desorb the absorbate (VOC vapors) from the adsorbent, and the adsorbate and regenerated absorbent can be recovered for reuse or disposal. Non-regenerative systems require the removal of the spent adsorbent and replacement with fresh adsorbent.

(6) Condensation Unit:

Condensation is the process by which the temperature of the waste gas stream is lowered to below the dew points of the contaminants gases in waste gas. A refrigeration condenser normally provides VOC control efficiency greater than 90%.

Step Two: Eliminate Technically Infeasible Control Options

Based on the information reviewed for this BACT determination, IDEM, OAQ has determined that the use of carbon adsorption, condensation, and biofiltration systems are not technically feasible options for this source for the following reasons:

- (a) Based on the information reviewed for this BACT determination, the use of a biofiltration system is infeasible because the high temperature exhaust stream from the fryers would inhibit microbiological activities. The outlet temperature of the ovens would exceed those in the required temperature range for mesophilic bacteria (nominally less than 106° F) and would kill off the microbes. Additionally, during the periods that the oven is shut-down for normal cleaning operations, the biofiltration system would have to be artificially fed in order to maintain system acclimation. Therefore, this technology is not technically feasible, and no further evaluation will be made.
- (b) Based on the information reviewed for this BACT determination, the use of carbon adsorption is infeasible because fats and oils in the fryer exhaust clog carbon pores. In addition, the ethanol is difficult to strip from the carbon. Therefore, this technology is not technically feasible, and no further evaluation will be made.
- (c) Based on the information reviewed for this BACT determination, the condensation method is infeasible because of the low VOC concentrations and high air flows, temperatures, and moisture content in the fryer exhaust. In addition, the fats and oils contained in the exhaust reduce the control efficiency and create sanitation concerns. Therefore, this technology is not technically feasible, and no further evaluation will be made.

The following table summarizes other BACT determinations at similar sources or for similar processes that were identified in the EPA's RACT/BACT/LAER Clearinghouse (RBLC) under Process Type Code 70.550 (Bakeries and Snack Food), as well as IDEM, OAQ permits issued to date. The BACT determinations are arranged in descending order in terms of issuance date.

Note: Sources that took limits to render 326 IAC 8-1-6 not applicable are not included in this list.

Company/	Year	Process	Control	BACT Emission Limits/Requirements	Reference
Location	Issued	Description	Device	VOC emissions from the bread oven	Keierence
Allen Foods, Inc. Elkhart, IN	2012	Bakery Oven	Catalytic Oxidizer	shall be controlled by a catalytic oxidizer. Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv. VOC emissions shall not exceed 2.29 lbs/hr. The source shall operate the proof box in accordance with manufacturer's and operating specifications. The source shall perform proof box cleaning operations for the proof box on a tiered cleaning schedule in accordance with their Sanitation Standard Operating Procedures (SSOP).	Indiana Federally Enforceable State Operating Permit F039-29392-00643
The Kroger Company - Indianapolis Bakery Indianapolis, IN	2012	Bakery Oven (Bun Line BU4)	Catalytic Oxidizer	VOC emissions from the bun oven shall be controlled by a catalytic oxidizer. Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv. VOC emissions from the bun oven shall not exceed 2.75 pounds per hour. The source shall operate the proof box in accordance with manufacturer's and operating specifications. The source shall perform proof box cleaning operations for the proof box on a tiered cleaning schedule in accordance with their Sanitation Standard Operating Procedures (SSOP).	Indiana Federally Enforceable State Operating Permit Significant Permit Revision F097-29287-00161
White Castle Systems, Inc. Rensselaer, IN	2011	Bakery Oven/ Proof Box	Catalytic Oxidizer	VOC emission from the bread baking oven shall be controlled by a catalytic oxidizer. Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv. VOC emissions from the bread oven shall not exceed 0.54 lbs/hr The source shall operate the proof box in accordance with manufacturer's and operating specifications. The source shall perform proof box cleaning operations for the proof box on a tiered cleaning schedule in accordance with their Sanitation Standard Operating Procedures (SSOP).	Indiana Minor Source Operating Permit M073-29819-00039

Company/ Location	Year	Process	Control	RACT Emission Limits/Paguiraments	
Location	issuea	Description	Device	VOC emission from the baking ovens	
Alpha Baking Co., Inc. LaPorte, IN	2011	Bakery Ovens Proof Boxes	Catalytic Oxidizer	shall be controlled by a catalytic oxidizer. Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv. The source shall operate the proof boxes in accordance with manufacturer's and operating specifications. The source shall perform proof box cleaning operations for the proof boxes on tiered cleaning schedules in accordance with their Sanitation Standard Operating Procedures (SSOP).	Indiana Federally Enforceable State Operating Permit F091-28222-00135
Harlan				VOC emissions from the bagel oven shall be controlled by a catalytic oxidizer.	Indiana Minor Source
Bakeries, Inc. Avon, IN	2008	Bakery Oven	Catalytic Oxidizer	Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.	Operating Permit M063-24103-00059
				VOC emissions shall not exceed 0.36 lbs/hr.	
Holsum of Fort Wayne, Inc.	2005	Bakery Oven	None	VOC emission shall be limited to 60 tons per twelve (12) consecutive month	Indiana Part 70 Significant Source Modification
Fort Wayne, IN				period	SSM 091-27352- 00106
The Kroger Company - Indianapolis Bakery	2003	Bakery Oven and Chain Lubricant (Bread Line BD1)	None	VOC emissions shall not exceed 49.0 tons per thirteen (13) consecutive twenty-eight (28) day period.	Indiana Federally Enforceable State Operating Permit Significant Permit Revision
Indianapolis, IN					F097-16909-00161
Maple Leaf Bakery	1998	Bakery Oven	Catalytic Oxidizer	92 % Destruction Removal Efficiency Minimal 600°F Operating Temperature	RBLC ID: CA-0854 Permit No.: 0473-170
CA Freund Baking				William Coo 1 Operating Temperature	
Company	1997	Bakery Oven	Catalytic Oxidizer	95.4 % Destruction Removal Efficiency	RBLC ID: CA-0859 Permit No.: 328570
Interstate Brands Corporation	1997	Combined Bakery Ovens and Chain Lubricant	None	VOC emissions shall not exceed 95 tons per thirteen (13) consecutive twenty-eight (28) day period.	Indiana Federally Enforceable State Operating Permit
Indianapolis, IN Holsum Bakery,					F097-7413-00171
Inc.	1996	Bakery Oven	Quencher / Scrubber	81 % Control Efficiency	RBLC ID: AZ-0029
AZ			OCIUDDOI	49.9 tons per year	Permit No.: 95-0432
KBI, Inc.	1996	Dough Mixing, Fermentation, and Baking Area	None	VOC emissions shall not exceed a total of 99.9 tons per twelve (12) consecutive month period	Indiana Federally Enforceable State Operating Permit
,		Bailing / ii oa		monar ponda	F145-15375-00037
Certified Grocers of California, Ltd	1990	Bakery Oven	Catalytic Afterburner	95% Control Efficiency	RBLC ID: CA-0468 Permit Nos.: 228274, 219899
CA Automatic Rolls of Virginia, Inc.				13.80 pounds per hour	RBLC ID: VA-0110
VA	1988	Bakery Oven	None	23.00 tons per year	Permit No.: (7)40761

Step Three: Rank Remaining Control Technologies by Control Effectiveness

The remaining technically feasible options for controlling VOC emissions from the existing bread baking operation are as follows (listed in descending order of most technically feasible):

Options for VOC Control	Control Efficiency (%)
Catalytic Oxidizer	95%
Thermal Oxidizer	95%
Wet Packed Bed Scrubber	81%

IDEM is aware that that the above control technologies may be able to periodically achieve control efficiencies that exceed 95% under certain operating conditions. However, BACT must be achievable on a consistent basis under normal operational conditions. BACT limitations do not necessarily reflect the highest possible control efficiency achievable by the technology on which the emission limitation is based. The permitting authority has the discretion to base the emission limitation on a control efficiency that is somewhat lower than the optimal level. There are several reasons why the permitting authority might choose to do this. One reason is that the control efficiency achievable through the use of the technology may fluctuate so that it would not always achieve its optimal control efficiency. In that case, setting the emission limitation to reflect the highest control efficiency would make violations of the permit unavoidable. To account for this possibility, a permitting authority must be allowed a certain degree of discretion to set the emission limitation at a level that does not necessarily reflect the highest possible control efficiency, but will allow the Permittee to achieve compliance consistently. While we recognize that greater than 95% may be achievable as an average during testing, IDEM allows for sources to include a safety factor, or margin of error, to allow for minor variations in the operation of the emission units and the control device.

Step Four: Evaluate Top Control Alternatives

Further evaluation including economic, energy, and environmental impacts are required for controlling VOC emissions from each donut production line. Annualized costs were determined in accordance with the EPA guidance (EPA's Office of Air Quality Planning and Standards Control Cost Manual), with other relevant information provided by the respective equipment vendors, inputs from plant personnel, and engineering judgment.

(a) Catalytic Oxidizer

The source proposed three possibilities for controlling potential VOC emissions from each donut production line:

(1) Control Both the Proof Box and Fryer:

The first option evaluated was to control the VOC emissions from the proof box and fryer for each donut production line. This option would include the installation of a clean room surrounding the proof box as well as the conveyor system between the proof box and the fryer. Additional air handlers would be required to direct airflow to a catalytic oxidizer, which would be installed after the fryer, and an oil mist eliminator would also be required for the fryer.

(2) Control the Proof Box Only:

The second option evaluated was to control VOC emissions from the proof box for each donut production line. This option would include the installation of clean room surrounding the proof box as well as the conveyor systems between the proof box and the fryer. Additional air handlers would be required to direct airflow to a catalytic oxidizer.

(3) Control the Fryer Only:

The third option evaluated was to control the VOC emissions from the fryer for each donut production line. This option would include the installation of an oil mist eliminator and a catalytic oxidizer to control emissions from only the fryer.

The source also proposed three possibilities for controlling potential VOC emissions from the combination of both donut production lines (Moline VI and Moline VIII):

(1) Control Both Proof Boxes and Fryers:

The first option evaluated was to control the VOC emissions from the proof box and fryer for both donut production lines (Moline VI and Moline VIII). This option would include the installation of a clean room surrounding each proof box as well as the conveyor system between each proof box and fryer. Additional air handlers would be required to direct airflow to a single free standing catalytic oxidizer, and an oil mist eliminator would also be required for each fryer.

(2) Control Both Proof Boxes Only:

The second option evaluated was to control VOC emissions from both proof boxes. This option would include the installation of a clean room surrounding each proof box as well as the conveyor systems between each proof box and fryer. Additional air handlers would be required to direct airflow to a single free standing catalytic oxidizer to control emissions from only the proof boxes.

(3) Control Both Fryers Only:

The third option evaluated was to control the VOC emissions from both fryers. This option would include the installation of oil mist eliminators and a single free standing catalytic oxidizer to control emissions from only the fryers.

(b) Thermal Oxidizer

Based on vendor analysis associated with similar BACTs, the costs associated with installing a thermal oxidizer were not evaluated since the cost of the technology is significantly higher than that of a catalytic oxidizer, which achieves the same level of control. Therefore, no further evaluation will be made.

(c) Wet Packed Bed Scrubber

Based on information reviewed for this BACT determination, the costs associated with installing a wet packed bed scrubber were not evaluated since the cost of the technology is significantly higher than that of a catalytic oxidizer. A wet scrubber would require substantial amounts of water requiring treatment at a wastewater treatment plant (WWTP). VOCs could potentially volatilize from the wastewater during the transference or conveyance to the WWTP, as well as, during treatment at the WWTP. To avoid this problem, the sewage system and WWTP would need to be designed to minimize the volatilization of VOCs or capture and control VOCs emitted the ambient air. Therefore, no further evaluation will be made.

Pursuant to Section IV.D.2.c of EPA's BACT Guidance Document, costs that are within the range of normal costs for a control method may be reviewed in comparison to similar sources. This comparison may allow for the elimination of a technologically- and otherwise economically-feasible control option, provided that the costs of pollutant removal for the subject source are unduly high when compared to the costs borne by sources in recent BACT determinations.

The technologically-feasible options for controlling VOC emissions from the donut production lines and the costs estimated for Maplehurst to purchase and operate each control method are summarized in Appendix C. The cost effectiveness for similar controls at similar facilities are not available for comparison for the proof boxes because there are currently no sources within the United States or any other country where control devices have been known to be implemented for VOC control of proof boxes. The costs for installing and operating control devices to control emissions from only the fryers are comparable with previously performed Best Available Control Technology (BACT) determinations.

Bakery Line	Cost for Controlling VOCs from Entire Line (Proof Box* & Fryer) (\$ / Ton Removed)	Cost for Controlling VOCs from Proof Box* Only (\$ / Ton Removed)	Cost for Controlling VOCs from Fryer Only (\$ / Ton Removed)
Moline VI	\$30,224	\$303,959	\$26,568
Moline VIII	\$19,989	\$200,988	\$17,571
Moline VI and Moline VIII	\$14,472	\$139,787	\$10,812

Note:

(a) Cost Analysis for Controlling Both the Proof Box and Fryer for Moline VI:

The cost associated with controlling the combined 38.67 tons of VOC emitted from both the fryer (Fryer6) and the proof box (Proof6) has been determined to be \$30,224 per ton of VOC removed.

(b) Cost Analysis for Controlling the Proof Box Only for Moline VI:

The cost associated with controlling the 3.47 tons of VOC emitted from the proof box (Proof6) has been determined to be \$303,959 per ton of VOC removed.

(c) Cost Analysis for Controlling the Fryer Only for Moline VI:

The cost associated with controlling the 35.20 tons of VOC emitted from the fryer (Fryer6) has been determined to be \$26,568 per ton of VOC removed.

(d) Cost Analysis for Controlling Both the Proof Box and Fryer for Moline VIII:

The cost associated with controlling the combined 58.46 tons of VOC emitted from both the fryer (Fryer8) and the proof box (Proof8) has been determined to be \$19,989 per ton of VOC removed.

(e) Cost Analysis for Controlling the Proof Box Only for Moline VIII:

The cost associated with controlling the 5.24 tons of VOC emitted from the proof box (Proof8) has been determined to be \$200,988 per ton of VOC removed.

(f) Cost Analysis for Controlling the Fryer Only for Moline VIII:

The cost associated with controlling the 53.22 tons of VOC emitted from the fryer (Fryer8) has been determined to be \$17,571 per ton of VOC removed.

^{*}Costs associated with controlling proof boxes are theoretical. These types of facilities have never been required to control VOC emissions.

(g) Cost Analysis for Controlling Both Proof Boxes and Fryers for Moline VI and Moline VIII:

The cost associated with controlling the combined 97.13 tons of VOC emitted from both fryers (Fryer6 and Fryer8) and both proof boxes (Proof6 and Proof8) has been determined to be \$14,472 per ton of VOC removed.

(h) Cost Analysis for Controlling Both Proof Boxes Only for Moline VI and Moline VIII:

The cost associated with controlling the combined 8.71 tons of VOC emitted from both proof boxes (Proof6 and Proof8) has been determined to be \$139,787 per ton of VOC removed.

(i) Cost Analysis for Controlling Both Fryers Only for Moline VI and Moline VIII:

The cost associated with controlling the combined 88.42 tons of VOC emitted from both fryers (Fryer6 and Fryer8) has been determined to be \$10,812 per ton of VOC removed.

The source proposes that requiring add-on controls for the Moline VI production line would place them at a significant economic disadvantage in the baking industry. The source proposes to limit VOC emissions from the Moline VI fryer (Fryer6) to less than 33.0 tons per year, to limit VOC emissions from the Moline VIII fryer (Fryer8) to less than 55.0 tons per year, to operate the proof boxes in accordance with the manufacturer's design and operating specifications, and to sanitize the proof boxes in accordance with accepted industry procedures and practices along with Food and Drug Administration requirements.

Step Five: Select BACT

- (a) IDEM, OAQ has determined that the following requirements represent BACT for the existing donut production line, identified as Moline VI:
 - (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VI (consisting of the fryer (Fryer6) and the proof box (Proof6)) shall not exceed 40.1 tons per twelve (12) consecutive month period.
 - (2) The source shall operate the proof box (Proof6) in accordance with the manufacturer's design and operating specifications.
 - (3) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof6), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (A) Weekly Cleaning Procedure:
 - (i) Remove all raw ingredients and/or product containers from the seeder area;
 - (ii) Scrape any dough from the racks and supports;
 - (iii) Scrape and sweep the proof box floor; and
 - (iv) Wet the entire floor with cleaning solvent mixture and then rinse.
 - (B) Four Week Cleaning Procedure:
 - (i) Wipe off interior proof box channel rails where needed;
 - (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
 - (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.

- (b) IDEM, OAQ has determined that the following requirements represent BACT for the proposed donut production line, identified as Moline VIII:
 - (1) VOC emissions attributable to proofing and fermentation from donut production line Moline VI (consisting of the fryer (Fryer8) and the proof box (Proof8)) shall not exceed 60.7 tons per twelve (12) consecutive month period.
 - (2) The source shall operate the proof box (Proof8) in accordance with the manufacturer's design and operating specifications.
 - In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box (Proof8), on a tiered cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (A) Weekly Cleaning Procedure:
 - Remove all raw ingredients and/or product containers from the seeder area:
 - (ii) Scrape any dough from the racks and supports;
 - (iii) Scrape and sweep the proof box floor; and
 - (iv) Wet the entire floor with cleaning solvent mixture and then rinse.
 - (B) Four Week Cleaning Procedure:
 - (i) Wipe off interior proof box channel rails where needed;
 - (ii) Remove any dough or oil accumulations from channel rails and cross over framework; and
 - (iii) Wash or mop the floor of the proof box. Remove accumulated waste from floor.

Compliance with the above limits and conditions will satisfy the requirements of 326 IAC 8-1-6 (BACT).

IDEM Contact

Questions regarding this BACT Analysis can be directed to John Haney at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5328 or toll free at 1-800-451-6027 extension 4-5328.

Appendix C: Cost Analyses for Control Devices Controlling Moline VI Only

Company Name: Maplehurst Bakeries, Inc.
Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112
Significant Source Modification No.: 063-31357-00031

Significant Permit Modification No.: 063-31381-00031 Permit Reviewer: John Haney Date: March 22, 2012

			Units Controlled		
Catalytic Oxidizer Control		Option 1	Option 2	Option 3	
		Proof Box & Fryer	Proof Box Only	Fryer Only	
DIRECT COST (Pollution Control Equipment)	Unit Cost	TOTAL (\$)	TOTAL (\$)	TOTAL (\$)	
Direct Purchased Equipment					
Equipment Total (*see notes for full description)	A =	\$1,115,700	\$769,100	\$475,00	
Instrumentation	0.10 A	\$111,570	\$76,910	\$47,50	
Sales Taxes	0.07 A	\$78,099	\$53,837	\$33,25	
Freight	0.05 A	\$55,785	\$38,455	\$23,75	
Total Equipment Costs	B =	\$1,361,154	\$938,302	\$579,500	
virect Installation Cost					
Foundation and Support	0.08 B	\$108,892	\$75,064	\$46,36	
Auxiliaries - Ductwork / Fittings (Engineering Estimate)		\$250,000	\$250,000	\$125,00	
Handling and Erection	0.14 B	\$190,562	\$131,362	\$81,13	
Piping		\$0	\$0	(
Insulation		\$0	\$0		
Painting		\$0	\$0	;	
Electrical	0.04 B	\$54,446	\$37,532	\$23,1	
Site Preparation		\$0	\$0		
Other		\$0	\$0		
otal Direct Installation Costs		\$603,900	\$493,959	\$275,670	
				, , , , , , , , , , , , , , , , , , , ,	
TOTAL Direct Investment (TDI) =	TDI =	\$4.00E.0E4	¢4 422 264	¢055 470	
Total Equipment Cost + Total Direct Installation Cost)	IDI =	\$1,965,054	\$1,432,261	\$855,170	
ndirect Installation Costs					
Engineering and Supervision	0.10 B	\$136,115	\$93,830	\$57,9	
Construction and Field Expenses	0.05 B	\$68,058	\$46,915	\$28,9	
Contractor Fees	0.10 B	\$136,115	\$93,830	\$57,9	
Start-up	0.02 B	\$27,223	\$18,766	\$11,5	
Performance Tests	0.01 B	\$13,612	\$9,383	\$5,7	
Overall Contingencies	0.03 B	\$40,835	\$28,149	\$17,3	
Working Capital	0.00 B	\$0	\$0	Ψ17,0	
Total Indirect Installation Costs (TIC)	TIC =	\$421,958	\$290,874	\$179,645	
Total maneet instanation costs (110)	110 -	ψ4£1,000	Ψ200,014	ψ110,040	
OTAL CAPITAL INVESTMENT (TCI) = (TDI +TIC)	TCI =	\$2,387,012	\$1,723,134	\$1,034,815	
OTAL CAPITAL INVESTMENT (TCI) = (TDI +TIC)	TCI =	\$2,387,012	\$1,723,134	\$1,034,815	
	TCI =	\$2,387,012	\$1,723,134	\$1,034,815	
NNUAL OPERATION & MAINTENANCE	TCI =	\$2,387,012	\$1,723,134	\$1,034,815	
OTAL CAPITAL INVESTMENT (TCI) = (TDI +TIC) INNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr)	TCI =	\$2,387,012 \$28,000	\$1,723,134 \$28,000	\$1,034,815 \$28,0	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr)		\$28,000	\$28,000	\$28,0	
NNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each)	\$28/hr \$28/hr	\$28,000 \$116,480	\$28,000 \$116,480	\$28,0 \$116,4	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr)	\$28/hr	\$28,000	\$28,000	\$28,0 \$116,4	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor	\$28/hr \$28/hr 15% of operator	\$28,000 \$116,480 \$4,200	\$28,000 \$116,480 \$4,200	\$28,0 \$116,4 \$4,2	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor	\$28/hr \$28/hr 15% of operator same as operator labor	\$28,000 \$116,480 \$4,200 \$28,000	\$28,000 \$116,480 \$4,200 \$28,000	\$28,0 \$116,4 \$4,2 \$28,0	
INNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000	\$28,0 \$116,4 \$4,2 \$28,0 \$28,0	
NNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr)	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$28,0 \$116,4 \$4,2 \$28,0 \$28,0	
NNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh)	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor	\$28,000 \$116,480 \$4,200 \$28,000 \$243,652 \$185,305	\$28,000 \$116,480 \$4,200 \$28,000 \$243,652 \$185,305	\$28,0 \$116,4 \$4,2 \$28,0 \$24,0 \$243,6 \$185,3	
NNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh	\$28,000 \$116,480 \$4,200 \$28,000 \$243,652 \$185,305 \$0	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0	\$28,0 \$116,4 \$4,2 \$28,0 \$28,0 \$243,6 \$185,3	
NNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu	\$28,000 \$116,480 \$4,200 \$28,000 \$243,652 \$185,305	\$28,000 \$116,480 \$4,200 \$28,000 \$243,652 \$185,305	\$28,0 \$116,4 \$4,2 \$28,0 \$24,6 \$243,6 \$185,3	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh	\$28,000 \$116,480 \$4,200 \$28,000 \$243,652 \$185,305 \$0	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0	\$28,0 \$116,4 \$4,2 \$28,0 \$28,0 \$243,6 \$185,3	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) direct Operating Costs (IC)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (IC) Overhead	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA =	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) direct Operating Costs (IC) Overhead Administrative Charges	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (IC) Overhead Administrative Charges Property Tax	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) direct Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) direct Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$20,6 \$10,3 \$10,3	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) direct Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$316,685	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$228,608	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$20,6 \$10,3 \$10,3 \$11,3	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) direct Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) fotal Indirect Operating Costs (IA)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$316,685 \$218,288	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$1122,808 \$34,463 \$17,231 \$17,231 \$228,608	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$20,6 \$10,3 \$10,3 \$137,2	
NNUAL OPERATION & MAINTENANCE irect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) direct Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) otal Indirect Operating Costs (IA) Heat Recovery Credits	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI IA =	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$17,231 \$228,608 \$191,733	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$10,3 \$10,3 \$110,3 \$137,2	
NNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (DA) idirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$316,685 \$218,288	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$1122,808 \$34,463 \$17,231 \$17,231 \$228,608	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$20,6 \$10,3 \$10,3 \$137,2	
INNUAL OPERATION & MAINTENANCE Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Otal Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits Otal Operating Costs (DA + IA - Heat Recovery Credits)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288 \$0 \$851,925	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$17,231 \$17,231 \$228,608 \$191,733 \$0 \$825,370	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$20,6 \$10,3 \$10,3 \$10,3 \$17,2	
INNUAL OPERATION & MAINTENANCE Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Otal Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits Otal Operating Costs (DA + IA - Heat Recovery Credits)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI IA =	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$17,231 \$228,608 \$191,733	\$28,0 \$116,4 \$4,2 \$28,0 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$10,3 \$10,3 \$137,2	
INNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Fotal Indirect Operating Costs (IA) Heat Recovery Credits otal Operating Costs (DA + IA - Heat Recovery Credits)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288 \$0 \$851,925	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$17,231 \$17,231 \$228,608 \$191,733 \$0 \$825,370	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$10,3 \$10,3 \$137,2 \$164,201 \$797,838	
INNUAL OPERATION & MAINTENANCE Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Otal Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Fotal Indirect Operating Costs (IA) Heat Recovery Credits Otal Operating Costs (DA + IA - Heat Recovery Credits) Otal Annualized Cost (Capital Recovery Cost + TOC)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288 \$0 \$851,925	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$17,231 \$17,231 \$228,608 \$191,733 \$0 \$825,370	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$20,6 \$10,3 \$10,3 \$10,3 \$17,2	
INNUAL OPERATION & MAINTENANCE irrect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts otal Direct Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Fotal Indirect Operating Costs (IA) Heat Recovery Credits otal Operating Costs (DA + IA - Heat Recovery Credits)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288 \$0 \$851,925	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$17,231 \$17,231 \$228,608 \$191,733 \$0 \$825,370	\$28,0 \$116,4 \$4,2 \$28,0 \$243,6 \$185,3 \$633,637 \$122,8 \$20,6 \$10,3 \$10,3 \$10,3 \$137,2 \$164,201 \$797,838	

NOTES:

Equipment total for Option 1 includes \$425,000 for one oxidizer, \$615,700 for the clean room, \$25,000 for air handling, and \$50,000 for an oil mist eliminator for the fryer

Equipment total for Option 2 includes \$300,000 for one oxidizer, \$444,100 for the clean room, and \$25,000 for air handling Equipment total for Option 3 includes \$425,000 for one oxidizer and \$50,000 for an oil mist eliminator for the fryel

Appendix C: Cost Analyses for Control Devices **Controlling Moline VIII Only**

Company Name: Maplehurst Bakeries, Inc. Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031 Permit Reviewer: John Haney Date: March 22, 2012

			Units Controlled	
Catalytic Oxidizer Control		Option 1 Proof Box & Fryer	Option 2 Proof Box Only	Option 3 Fryer Only
DIRECT COST (Pollution Control Equipment)	Unit Cost	TOTAL (\$)	TOTAL (\$)	TOTAL (\$)
Direct Purchased Equipment				
Equipment Total (*see notes for full description)	A =	\$1,115,700	\$769,100	\$475,00
Instrumentation	0.10 A	\$111,570	\$76,910	\$47,50
Sales Taxes	0.07 A	\$78,099	\$53,837	\$33,25
Freight Total Equipment Costs	0.05 A B =	\$55,785	\$38,455 \$938,302	\$23,75
Total Equipment Costs	В=	\$1,361,154	\$930,302	\$579,500
Direct Installation Cost				
Foundation and Support	0.08 B	\$108,892	\$75,064	\$46,36
Auxiliaries - Ductwork / Fittings (Engineering Estimate)		\$250,000	\$250,000	\$125,00
Handling and Erection	0.14 B	\$190,562	\$131,362	\$81,13
Piping		\$0	\$0	\$
Insulation		\$0	\$0	\$
Painting		\$0	\$0	\$
Electrical	0.04 B	\$54,446	\$37,532	\$23,18
Site Preparation		\$0	\$0	\$
Other		\$0	\$0	\$
Total Direct Installation Costs		\$603,900	\$493,959	\$275,670
TOTAL Direct Investment (TDI) =	TDI =	\$1,965,054	\$1,432,261	\$855,170
(Total Equipment Cost + Total Direct Installation Cost)		. ,,	. , . , .	,
Indirect Installation Costs				
Engineering and Supervision	0.10 B	\$136,115	\$93,830	\$57,95
Construction and Field Expenses	0.05 B	\$68,058	\$46,915	\$28,97
Contractor Fees	0.10 B	\$136,115	\$93,830	\$57,95
Start-up	0.02 B	\$27,223	\$18,766	\$11,5
Performance Tests	0.01 B	\$13,612	\$9,383	\$5,79
Overall Contingencies	0.03 B	\$40,835	\$28,149	\$17,38
Working Capital		\$0	\$0	9
Total Indirect Installation Costs (TIC)	TIC =	\$421,958	\$290,874	\$179,645
TOTAL CAPITAL INVESTMENT (TCI) = (TDI +TIC)	TCI =	\$2,387,012	\$1,723,134	\$1,034,815
			T - 1 1	
ANNUAL OPERATION O MAINTENANOE			¥ 1,1 = 2,1 = 1	¥1,3201,3210
ANNUAL OPERATION & MAINTENANCE			¥ -3,- = -3, - 0 - 1	¥ -1,0 = -1,0 = -
Direct Operating Costs (DA)		\$28,000		
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr)	\$28/hr	\$28,000 \$116,480	\$28,000	\$28,00
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each)	\$28/hr \$28/hr	\$116,480	\$28,000 \$116,480	\$28,00 \$116,48
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr)	\$28/hr		\$28,000	\$28,00 \$116,48
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor	\$28/hr \$28/hr 15% of operator	\$116,480 \$4,200	\$28,000 \$116,480 \$4,200	\$28,00 \$116,44 \$4,20
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor	\$28/hr \$28/hr 15% of operator same as operator labor	\$116,480 \$4,200 \$28,000	\$28,000 \$116,480 \$4,200 \$28,000	\$28,00 \$116,40 \$4,20 \$28,00
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor	\$116,480 \$4,200 \$28,000 \$28,000	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000	\$28,0 \$116,4 \$4,2 \$28,0 \$28,0
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr)	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$28.00 \$116,4: \$4,20 \$28,00 \$243,6:
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh)	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$28,0(\$116,4(\$4,2(\$28,0(\$243,6(\$185,3(
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts	\$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$28,00 \$116,40 \$4,20 \$28,00 \$243,60 \$185,30
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0	\$28,00 \$116,41 \$4,20 \$28,00 \$243,60 \$185,30
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (IC)	\$28/hr \$28/hr \$28/hr 15% of operator Same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28.00 \$116,40 \$4,20 \$28.00 \$243,60 \$185,30 \$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,00 \$116,40 \$4,20 \$28,00 \$243,60 \$185,30 \$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,0(\$116,4(\$4,2(\$28,0(\$28,0(\$243,6(\$185,3(\$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Fotal Direct Operating Costs (IC) Overhead Administrative Charges Property Tax	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,0(\$116,4(\$4,2(\$28,0(\$243,6(\$185,3(\$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Fotal Direct Operating Costs (DA) ndirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231	\$28,0(\$116,4(\$4,2(\$28,0(\$243,6(\$185,3(\$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$28,00 \$116,40 \$4,20 \$28,00 \$243,60 \$185,30 \$633,637 \$122,80 \$20,60 \$10,30 \$10,30
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231	\$28,01 \$116,44 \$4,21 \$28,01 \$243,63 \$185,33 \$633,637 \$122,81 \$20,61 \$10,33 \$10,33
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI IA =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$1122,808 \$34,463 \$17,231 \$17,231 \$228,608 \$191,733	\$28,0(\$116,4(\$4,2(\$28,0(\$243,6(\$185,3(\$185,3(\$10,3(
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$316,685 \$218,288	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$1122,808 \$34,463 \$17,231 \$17,231 \$228,608 \$191,733	\$28,00 \$116,44 \$4,20 \$28,00 \$243,66 \$185,30 \$633,637 \$122,80 \$20,66 \$10,34 \$10,34 \$10,34 \$10,34
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits Total Operating Costs (DA + IA - Heat Recovery Credits)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI IA =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$1122,808 \$34,463 \$17,231 \$17,231 \$228,608 \$191,733	\$28,0(\$116,4(\$4,2(\$28,0(\$243,6(\$185,3(\$185,3(\$10,3(
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits Total Operating Costs (DA + IA - Heat Recovery Credits) Total Annualized Cost (Capital Recovery Cost + TOC)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1.13267 TCI IA = TOC =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$316,685 \$218,288 \$0 \$851,925	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$228,608 \$191,733 \$0 \$825,370	\$28,00 \$116,40 \$28,00 \$28,00 \$243,60 \$185,30 \$633,637 \$122,80 \$20,60 \$10,30 \$10,30 \$137,20 \$797,838
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA)	\$28/hr \$28/hr \$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1.13267 TCI IA = TOC =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$47,740 \$23,870 \$23,870 \$316,685 \$218,288 \$0 \$851,925	\$28,000 \$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$34,463 \$17,231 \$17,231 \$17,231 \$228,608 \$191,733 \$0 \$825,370	\$28,00 \$116,48 \$4,20 \$28,00 \$243,66 \$185,30 \$ \$633,637 \$122,80 \$20,68 \$10,34 \$10,34 \$137,28 \$164,201 \$797,838

NOTES:

Equipment total for Option 1 includes \$425,000 for one oxidizer, \$615,700 for the clean room, \$25,000 for air handling, and \$50,000 for an oil mist eliminator for the fryer

Equipment total for Option 2 includes \$300,000 for one oxidizer, \$444,100 for the clean room, and \$25,000 for air handling Equipment total for Option 3 includes \$425,000 for one oxidizer and \$50,000 for an oil mist eliminator for the fryel

Appendix C: Cost Analyses for Control Devices Controlling Moline VI and Moline VIII Combined

Company Name: Maplehurst Bakeries, Inc. Address City IN Zip: 50 Maplehurst Drive, Brownsburg, Indiana 46112

Significant Source Modification No.: 063-31357-00031 Significant Permit Modification No.: 063-31381-00031 Permit Reviewer: John Haney Date: March 22, 2012

			Units Controlled	
Catalytic Oxidizer Control		Option 1 Proof Box & Fryer	Option 2 Proof Box Only	Option 3 Fryer Only
DIRECT COST (Pollution Control Equipment)	Unit Cost	TOTAL (\$)	TOTAL (\$)	TOTAL (\$)
Direct Purchased Equipment		# 4 000 400	# 4 000 000	\$505.00
Equipment Total (*see notes for full description) Instrumentation	A =	\$1,806,400	\$1,238,200	\$525,000
Sales Taxes	0.10 A 0.07 A	\$180,640 \$126,448	\$123,820	\$52,500 \$36,750
Freight			\$86,674 \$61,910	\$26,250
Total Equipment Costs	0.05 A B =	\$90,320 \$2,203,808	\$1,510,604	\$640,500
Total Equipment Costs	B-	\$2,203,000	\$1,310,004	φ040,300
Direct Installation Cost				
Foundation and Support	0.08 B	\$176,305	\$120,848	\$51,24
Auxiliaries - Ductwork / Fittings (Engineering Estimate)		\$300,000	\$300,000	\$150,00
Handling and Erection	0.14 B	\$308,533	\$211,485	\$89,67
Piping		\$0	\$0	\$
Insulation		\$0	\$0	\$
Painting		\$0	\$0	\$
Electrical	0.04 B	\$88,152	\$60,424	\$25,62
Site Preparation		\$0	\$0	\$
Other		\$0	\$0	\$246.520
Total Direct Installation Costs		\$872,990	\$692,757	\$316,530
TOTAL Direct Investment (TDI) = Total Equipment Cost + Total Direct Installation Cost)	TDI =	\$3,076,798	\$2,203,361	\$957,030
Total Equipment Cost + Total Direct installation Cost)				
Indirect Installation Costs				
Engineering and Supervision	0.10 B	\$220,381	\$151,060	\$64,05
Construction and Field Expenses	0.05 B	\$110,190	\$75,530	\$32,02
Contractor Fees	0.10 B	\$220,381	\$151,060	\$64,05
Start-up	0.02 B	\$44,076	\$30,212	\$12,81
Performance Tests	0.01 B	\$22,038	\$15,106	\$6,40
Overall Contingencies	0.03 B	\$66,114	\$45,318	\$19,21
Working Capital Total Indirect Installation Costs (TIC)	TIC =	\$0 \$683,180	\$0 \$468,287	\$198,555
TOTAL CAPITAL INVESTMENT (TCI) = (TDI +TIC)	TCI =	\$3,759,979	\$2,671,648	\$1,155,585
ANNUAL OPERATION & MAINTENANCE				
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr)	\$28/hr	\$28,000	\$28,000	
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each)	\$28/hr	\$116,480	\$116,480	\$116,48
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr)				\$116,48
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor	\$28/hr 15% of operator	\$116,480 \$4,200	\$116,480 \$4,200	\$116,48 \$4,20
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor	\$28/hr 15% of operator same as operator labor	\$116,480 \$4,200 \$28,000	\$116,480 \$4,200 \$28,000	\$116,48 \$4,20 \$28,00
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material	\$28/hr 15% of operator same as operator labor same as maintenance labor	\$116,480 \$4,200 \$28,000 \$28,000	\$116,480 \$4,200 \$28,000 \$28,000	\$116,48 \$4,20 \$28,00 \$28,00
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr)	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh)	\$28/hr 15% of operator same as operator labor same as maintenance labor	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA)	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30 \$ \$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) ndirect Operating Costs (IC) Overhead	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30 \$ \$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Fotal Direct Operating Costs (DA) ndirect Operating Costs (IC) Overhead Administrative Charges	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30 \$633,637
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Fotal Direct Operating Costs (IC) Overhead Administrative Charges Property Tax	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716	\$116,48 \$4,20 \$28,00 \$243,65 \$185,30 \$ \$633,637 \$112,80 \$23,11 \$11,55
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Fotal Direct Operating Costs (DA) ndirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637	\$116,48 \$4,20 \$28,00 \$243,65 \$185,30 \$ \$633,637 \$112,80 \$23,11 \$11,55
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) ndirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716	\$116,48 \$4,20 \$28,00 \$243,65 \$185,30 \$633,637 \$112,80 \$23,11 \$11,55
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years)	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600 \$37,600 \$498,836	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716 \$354,448	\$116,48 \$4,20 \$28,00 \$243,65 \$185,30 \$633,637 \$122,80 \$23,11 \$11,55 \$11,55
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600 \$37,600	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716 \$26,716	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30 \$ \$633,637 \$122,80 \$23,11 \$11,55 \$11,55 \$153,31
Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA)	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600 \$37,600 \$498,836	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716 \$26,716 \$354,448	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30 \$633,637 \$122,80 \$23,11: \$11,55 \$11,55 \$153,31
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 0.13267 TCI IA =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600 \$37,600 \$498,836 \$273,207	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716 \$26,716 \$354,448 \$229,674	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30 \$ \$633,637 \$122,80 \$23,11 \$11,55 \$11,55 \$153,31 \$169,031
Orect Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (DA) Heat Recovery Credits Total Operating Costs (DA + IA - Heat Recovery Credits) Total Annualized Cost (Capital Recovery Cost + TOC)	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1A = TOC =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600 \$37,600 \$498,836 \$273,207 \$0 \$906,844	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716 \$26,716 \$354,448 \$229,674 \$0 \$863,311	\$116,48 \$4,20 \$28,00 \$28,00 \$243,65 \$185,30 \$ \$633,637 \$122,80 \$23,11 \$11,55 \$11,55 \$153,31 \$169,031 \$ \$802,668 \$955,980
Direct Operating Costs (DA) Operating Labor - Operator (1000 hr/yr) Operating Labor - Sanitation - 2 People (2080 hr/yr each) Operating Labor - Supervisor Maintenance Labor Maintenance Material Natural Gas (6.14 MMBtu/hr) Electricity (312 kWh) Replacement Parts Total Direct Operating Costs (DA) Indirect Operating Costs (IC) Overhead Administrative Charges Property Tax Insurance Capital Recovery Cost (Assumes 5.5% interest over 10 years) Total Indirect Operating Costs (IA) Heat Recovery Credits Total Operating Costs (DA + IA - Heat Recovery Credits)	\$28/hr 15% of operator same as operator labor same as maintenance labor \$4.53/MMBtu \$0.0678/kWh DA = 60% of total labor and materials 0.02 TCI 0.01 TCI 0.01 TCI 1A = TOC =	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$75,200 \$37,600 \$37,600 \$498,836 \$273,207 \$0 \$906,844	\$116,480 \$4,200 \$28,000 \$28,000 \$243,652 \$185,305 \$0 \$633,637 \$122,808 \$53,433 \$26,716 \$26,716 \$354,448 \$229,674 \$0 \$863,311	\$122,800 \$23,111 \$11,551 \$11,555 \$153,311 \$169,031 \$802,668

NOTES:

Equipment total for Option 1 includes \$425,000 for one oxidizer, \$615,700 for each of two clean rooms, \$50,000 for air handling, and \$50,000 for an oil mist eliminator for each of the two fryers

Equipment total for Option 2 includes \$300,000 for one oxidizer, \$444,100 for each of two clean rooms, and \$50,000 for air handling

Equipment total for Option 3 includes \$425,000 for one oxidizer and \$50,000 for an oil mist eliminator for each of the two fryers





We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

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

April 16, 2012

Greg Taylor Maplehurst Bakeries, Inc. 50 Maplehurst Dr Brownsburg, IN 46112

Re: Public Notice

Maplehurst Bakeries, Inc. Permit Level: Title V

Permit Number: 063-31381-00031 & 063-31357-00031

Dear Mr. Taylor:

Enclosed is a copy of your draft Title V, 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 Brownsburg Public Library, 450 S Jefferson Stin Brownsburg, Indiana. 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 Hendricks County Flyer in Brownsburg publish this notice no later than Saturday, April 21,2012.

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 John Haney, 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 4-5328 or dial (317) 234-5328.

> Sincerely, **Catherine Denny** Permits Branch Office of Air Quality

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



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Thomas W. Easterly Commissioner

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ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

April 16, 2012

Hendricks County Flyer 8109 Kingston Street Suite 500 Avon, Indiana 46123

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Maplehurst Bakeries. Hendricks 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 Saturday, April 21, 2012.

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.

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 Catherine Denny at 800-451-6027 and ask for extension 3-9488 or dial 317-233-9488.

> Sincerely, Catherine Denny Permit Branch Office of Air Quality

Permit Level: Title V

Permit Number: 063-31381-00031 & 063-31357-00031

Enclosure PN Newspaper.dot 3/27/08



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



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Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

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

April 16, 2012

To: Brownsburg Brown and Lincoln Twp Library

Matthew Stuckey, Branch Chief From:

> Permits Branch Office of Air Quality

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

Permit

Applicant Name: Maplehurst Bakeries, Inc.

063-31357-0031 & 063-31381-00031 Permit Number:

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 03/27/08



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



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Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

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

Notice of Public Comment

April 16, 2012 Maplehurst Bakeries, Inc. 063-31357-00031 & 063-31381-00031

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 3/27/08



Mail Code 61-53

IDEM Staff	CDENNY 4/16/2	012		
	Maplehurst Bake	ries, Inc. 063-31357-00031 & 063-31381-0	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 GIVET	

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
1		Greg Taylor Maplehurst Bakeries, Inc. 50 Maplehurst Dr Brownsburg IN 46112 (Source	e CAATS)								Remarks
2		Robert Goold Plant Mgr Maplehurst Bakeries, Inc. 50 Maplehurst Dr Brownsburg IN 4	16112 <i>(RO C</i>	CAATS)							
3		Brownsburg Brown and Lincoln Twp Library 450 S Jefferson St Brownsburg IN 4611	2-1310 <i>(Libr</i>	ary)							
4		V.P., Board of County Commissioners 355 S. Washington Street Room 204 Danville	IN 46122 (Affected Party,)						
5		Larry and Becky Bischoff 10979 North Smokey Row Road Mooresville IN 46158 (Aff	ected Party)								
6		Hendricks County Commissioners 355 S Washington Danville IN 46122 (Local Office	ial)								
7		Betty Bartley P.O. Box 149 Danville IN 46122 (Affected Party)									
8		Brownsburg Town Council and Town Manager 61 North Green Street Brownsburg IN	46112 (Loc	cal Official)							
9		Hendricks County Health Department 355 S Washington Street, Suite 210 Danville IN 46122-1759 (Health Department)									
10		Scott Fulton August Mack Environmental, Inc. 1302 N. Meridian Street, Suite 300 Indianapolis IN 46202 (Consultant)									
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received 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.
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