



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

TO: Interested Parties / Applicant

DATE: January 8, 2013

RE: Allen Foods, Inc./039-32174-00643

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07



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

Mr. Wayne Jones
Allen Foods, Inc.
53075 Frederic Drive
Elkhart, Indiana 46514

January 8, 2013

Re: F039-32174-00643
First Significant Revision to
F039-29392-00643

Dear Mr. Jones:

Allen Foods, Inc. was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F039-29392-00643 on March 30, 2012, for a stationary commercial bakery located at 53075 Frederic Dr, Elkhart, Indiana 46514. On August 2, 2012, the Office of Air Quality (OAQ) received an application from the source requesting the addition of a new bun baking line, including a natural gas-fired oven and one (1) proof box, one (1) flour silo, two (2) flour dusting hoppers, two (2) scale hoppers, four (4) inkjet printers and one (1) natural gas-fired space heater. Additionally, Allen Foods, Inc. has requested that the catalytic oxidizer serving the two (2) english muffin line baking ovens (001 & 027), currently identified as emission unit 030, be renumbered as emission unit 047 to avoid confusion, since one (1) of the existing dry ingredient storage silos was previously identified as emission unit 030. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any 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.
3. 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 (Revocation), 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.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

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, please contact Ms. Hannah Desrosiers, of my staff, at 317-233-9327 or 1-800-451-6027, and ask for extension 3-9327.

Sincerely,



Nathan Bell, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

NB/hd

cc: File - Elkhart County
Elkhart County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing, and Training Section



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

Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**Allen Foods, Inc.
53075 Frederic Drive
Elkhart, Indiana 46514**

(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.

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation, or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F039-29392-00643	
Original Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: March 30, 2012 Expiration Date: March 30, 2022

Significant Permit Revision No.: F039-32174-00643	
Issued by:  Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: January 8, 2013 Expiration Date: March 30, 2022

TABLE OF CONTENTS

A. SOURCE SUMMARY	5
A.1 General Information [326 IAC 2-8-3(b)]	
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]	
A.4 FESOP Applicability [326 IAC 2-8-2]	
B. GENERAL CONDITIONS	8
B.1 Definitions [326 IAC 2-8-1]	
B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]	
B.3 Term of Conditions [326 IAC 2-1.1-9.5]	
B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]	
B.5 Severability [326 IAC 2-8-4(4)]	
B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]	
B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]	
B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]	
B.12 Emergency Provisions [326 IAC 2-8-12]	
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]	
B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]	
B.16 Permit Renewal [326 IAC 2-8-3(h)]	
B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]	
B.19 Source Modification Requirement [326 IAC 2-8-11.1]	
B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2] [IC 13-30-3-1]	
B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]	
B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]	
C. SOURCE OPERATION CONDITIONS	18
Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2 Overall Source Limit [326 IAC 2-8]	
C.3 Opacity [326 IAC 5-1]	
C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.6 Fugitive Dust Emissions [326 IAC 6-4]	
C.7 Stack Height [326 IAC 1-7]	
C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]	
Testing Requirements [326 IAC 2-8-4(3)]	
C.9 Performance Testing [326 IAC 3-6]	
Compliance Requirements [326 IAC 2-1.1-11]	
C.10 Compliance Requirements [326 IAC 2-1.1-11]	

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

- C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]
- C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

- C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]
- C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
- C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1. EMISSIONS UNIT OPERATION CONDITIONS - Bread, Muffin, and Bun Lines..... 25

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

- D.1.1 New Facilities, General Reduction Requirements [326 IAC 8-1-6] [326 IAC 2-8-4] [326 IAC 2-2]
- D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 2-8-4] [326 IAC 2-3]
- D.1.4 Testing Requirements [326 IAC 3-6] [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements

- D.1.5 Catalytic Oxidizer Temperature
- D.1.6 Parametric Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.1.7 Record Keeping Requirements

D.2. EMISSIONS UNIT OPERATION CONDITIONS - Dry Ingredient Storage and Conveyance..... 30

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

- D.2.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
- D.2.2 Particulate Emission Limitations [326 IAC 2-2]
- D.2.3 Particulate Emission Limitations [326 IAC 2-8-4]
- D.2.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.2.5 Particulate Control

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

- D.2.6 Parametric Monitoring
- D.2.7 Broken or Failed Filter Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.2.8 Record Keeping Requirements
- D.2.9 Reporting Requirements

D.3. EMISSIONS UNIT OPERATION CONDITIONS 36

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

D.3.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Certification Form 37
Emergency Occurrence Form 38
Quarterly Report Forms 40
Quarterly Deviation and Compliance Monitoring Report Form 46
Fugitive Dust Control Plan Attachment A

SECTION A

SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary commercial bakery.

Source Address:	53075 Frederic Drive, Elkhart, Indiana 46514
General Source Phone Number:	574-206-8250
SIC Code:	2051 (Bread and Other Bakery Products, Except Cookies and Crackers)
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State 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 2-8-3(c)(3)]

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

- (a) One (1) english muffin line, identified as Line 001, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of:
 - (1) One (1) natural gas-fired baking oven, identified as emission unit 001, with a heat input capacity of 2.85 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047, and exhausting through common stack S30; and
 - (2) One (1) proof box, identified as Line 001 Proof Box.
- (b) One (1) english muffin line, identified as Line 027, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of:
 - (1) One (1), natural gas-fired baking oven, identified as emission unit 027, with a heat input capacity of 2.40 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047, and exhausting through common stack S30.
 - (2) One (1) proof box, identified as Line 027 Proof Box.
- (c) One (1) bread line, identified as Line 028, constructed in 2006, with a maximum throughput capacity of 7.20 tons of baked product per hour, consisting of:
 - (1) One (1) natural gas-fired baking oven, identified as emission unit 028, with a heat input capacity of 10.08 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer identified as emission unit 029, exhausting through one (1) vent (S17); and
 - (2) One (1) proof box, identified as Line 028 Proof Box.

- (d) One (1) dry ingredient storage and conveyance system, installed in 2006, 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, with a maximum capacity of 14,310 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
- (1) Two (2) dry ingredient storage silos, identified as emission units 021 and 022, installed in 2006, each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (2) Five (5) dry ingredient storage silos, identified as emission units 030 through 034, installed in 2006, each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (3) Two (2) dry ingredient use bins, identified as emission units 035 and 036, installed in 2006, each with a maximum storage capacity of 2,000 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (4) One (1) dusting flour use bin, identified as emission unit 037, installed in 2006, with a maximum storage capacity of 2,000 pounds of dusting flour, and equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (5) Four (4) muffin scale hoppers, identified as emission units 038 through 041, installed in 2006, each with a maximum storage capacity of 800 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (6) Three (3) bread scale hoppers, identified as emission units 042 through 044, installed in 2006, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (7) Two (2) dusting flour hoppers, identified as emission units 045 and 046, installed in 2006, each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
- (e) One (1) Bun Line, identified as Line 048, approved for construction in 2012, with a maximum throughput capacity of 4.60 tons of yeast fermented baked product per hour, consisting of:
- (1) One (1) natural gas direct-fired baking oven, identified as emission unit 048, with a heat input capacity of 8.40 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer, identified as emission unit 029, and exhausting through one (1) vent (S17); and
 - (2) One (1) proof box, identified as Line 048 Proof Box.
- (f) One (1) dry ingredient storage and conveyance system, approved for construction in 2012, 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, with a maximum [bottlenecked] capacity of 9,200.0 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:

- (1) One (1) dry ingredient storage silo, identified as 049, approved for construction in 2012, with a maximum storage capacity of 75 tons, equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
- (2) Two (2) scale hoppers, identified as emission units 050 and 051, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
- (3) Two (2) dusting flour hoppers, identified as emission units 052 and 053, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.

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

This stationary source also includes the following insignificant activities:

- (a) One (1) auxiliary boiler, burning natural gas, identified as emission unit 002, installed in 2006, rated at 1 MMBtu per hour;
- (b) One (1) process hot water heater, burning natural gas, identified as emission unit 003, installed in 2006, rated at 0.54 MMBtu per hour;
- (c) One (1) domestic hot water heater, burning natural gas, identified as emission unit 004, installed in 2006, rated at 0.3 MMBtu per hour;
- (d) Five (5) space heaters, burning natural gas, identified as emission units 005 through 009, installed in 2006, each rated at 3.5 MMBtu per hour; and
- (e) Eleven (11) space heaters, burning natural gas, identified as emission units 010 through 020, installed in 2006, each rated at 0.12 MMBtu per hour.
- (f) One (1) natural gas-fired space heater, identified as emission unit 054, approved for construction in 2012, with a maximum heat input capacity of 3.5 MMBtu per hour, uncontrolled and exhausting inside the building.
- (g) Ten (10) Inkjet printers for the application of product codes onto product bags, approved for construction in 2012, with an anticipated maximum ink usage of less than or equal to 4.20 gallons/yr, each, and an anticipated maximum usage of makeup solvent of less than or equal to 10.90 gallons/yr, each, uncontrolled and exhausting inside the building;
- (h) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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

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

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

-
- (a) This permit, F039-29392-00643, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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 2-8-6] [IC 13-17-12]

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

B.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

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

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
- (1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

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

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

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

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

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

- (a) All terms and conditions of permits established prior to F039-29392-00643 and issued pursuant to permitting programs approved into the state implementation plan have been either:

- (1) incorporated as originally stated,
- (2) revised, or
- (3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

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

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

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

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

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

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

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

- (b) Emission Trades [326 IAC 2-8-15(b)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(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 Overall Source Limit [326 IAC 2-8]

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM) and greenhouse gases (GHGs), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.

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

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

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

C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4, or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

C.7 Stack Height [326 IAC 1-7]

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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

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

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

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

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.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 maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) 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]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following:
- (AA) All calibration and maintenance records.
 - (BB) All original strip chart recordings for continuous monitoring instrumentation.
 - (CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following:

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

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

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

- (b) The address for report submittal is:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Bread, Muffin, and Bun Lines

- (a) One (1) english muffin line, identified as Line 001, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of:
 - (1) One (1) natural gas-fired baking oven, identified as emission unit 001, with a heat input capacity of 2.85 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047, and exhausting through common stack S30; and
 - (2) One (1) proof box, identified as Line 001 Proof Box.
- (b) One (1) english muffin line, identified as Line 027, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of:
 - (1) One (1), natural gas-fired baking oven, identified as emission unit 027, with a heat input capacity of 2.40 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047, and exhausting through common stack S30.
 - (2) One (1) proof box, identified as Line 027 Proof Box.
- (c) One (1) bread line, identified as Line 028, constructed in 2006, with a maximum throughput capacity of 7.20 tons of baked product per hour, consisting of:
 - (1) One (1) natural gas-fired baking oven, identified as emission unit 028, with a heat input capacity of 10.08 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer identified as emission unit 029, exhausting through one (1) vent (S17); and
 - (2) One (1) proof box, identified as Line 028 Proof Box.
- (e) One (1) Bun Line, identified as Line 048, approved for construction in 2012, with a maximum throughput capacity of 4.60 tons of yeast fermented baked product per hour, consisting of:
 - (1) One (1) natural gas direct-fired baking oven, identified as emission unit 048, with a heat input capacity of 8.40 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer, identified as emission unit 029, and exhausting through one (1) vent (S17); and
 - (2) One (1) proof box, identified as Line 048 Proof Box.

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

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

D.1.1 New Facilities, General Reduction Requirements [326 IAC 8-1-6] [326 IAC 2-8-4] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), the Permittee shall control the VOC emissions from the two (2) English muffin lines (Line 001 and Line 027) using the Best Available Control Technology (BACT), which has been determined to be the following:

- (1) The VOC emissions from baking oven 001 and baking oven 027 shall be controlled by a single catalytic oxidizer (047).
- (2) The minimum overall VOC control efficiency for the catalytic oxidizer, including capture efficiency and destruction efficiency, shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.
- (3) The combined VOC emissions from baking oven 001 and baking oven 027, exhausting through the common stack S30, shall not exceed 1.52 lbs/hr.
- (4) The Permittee shall operate Line 001 (consisting of the baking oven and proof box) in accordance the manufacturer's design and operating specifications.
- (5) The Permittee shall operate Line 027 (consisting of the baking oven and proof box) in accordance the manufacturer's design and operating specifications.
- (6) In order to ensure proper operation and to minimize potential emissions, the Permittee shall perform proof box cleaning operations for the proof box associated with Line 001, on a weekly 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) Knock down all dough and residue from interior framework;
 - (ii) Sweep floor;
 - (iii) Use floor scraper for excess debris;
 - (iv) Foam floor and scrub with brush;
 - (v) Rinse Floor;
- (7) In order to ensure proper operation and to minimize potential emissions, the Permittee shall perform proof box cleaning operations for the proof box associated with Line 001, on a weekly 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) Knock down all dough and residue from interior framework;
 - (ii) Sweep floor;
 - (iii) Use floor scraper for excess debris;
 - (iv) Foam floor and scrub with brush;
 - (v) Rinse Floor;

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

- (b) IDEM has determined that the best available control technology (BACT) to control VOC emissions from the bread line (Line 028) and the bun line (048) shall be as follows:
 - (1) The VOC emissions from baking oven 028 and baking oven 048 shall be controlled by a single catalytic oxidizer (029).

- (2) The overall VOC control efficiency for the catalytic oxidizer (including capture efficiency and destruction efficiency) shall be at least 95%, or the VOC outlet concentration shall not exceed 10 ppmv.
- (3) The combined VOC emissions from baking oven 028 and the bun line baking oven (048), jointly controlled by catalytic oxidizer 029 and exhausting through vent S17, shall not exceed 4.30 lbs/hr.
- (4) The Permittee shall operate bread line (Line 028) (consisting of the baking oven and proof box) in accordance the manufacturer's design and operating specifications.
- (5) The Permittee shall operate the bun line (Line 048) (consisting of the baking oven and proof box) in accordance the manufacturer's design and operating specifications.
- (6) In order to ensure proper operation and to minimize potential emissions, the Permittee shall perform proof box cleaning operations for the proof box associated with Bread Line 028, on a weekly cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:

Weekly Cleaning Procedure:

- (A) Knock down all dough and residue from interior framework;
 - (B) Sweep floor;
 - (C) Use floor scraper for excess debris;
 - (D) Foam floor and scrub with brush; and
 - (E) Rinse Floor.
- (7) In order to ensure proper operation and to minimize potential emissions, the Permittee shall perform proof box cleaning operations for the proof box associated with Bun Line 048, on a weekly cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:

Weekly Cleaning Procedure:

- (A) Knock down all dough and residue from interior framework;
- (B) Sweep floor;
- (C) Use floor scraper for excess debris;
- (D) Foam floor and scrub with brush; and
- (E) Rinse Floor.

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

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

D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 2-8-4] [326 IAC 2-2]

In order to comply with Condition D.2.1, the catalytic oxidizers shall be in operation and control emissions from the baking ovens at all times the baking ovens are in operation.

D.1.4 Testing Requirements [326 IAC 3-6] [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with the Best Available Control Technology (BACT) requirements in Condition D.1.1 for the baking ovens, the Permittee shall perform VOC (including emission rate and overall control efficiency of the catalytic oxidizer) testing for:

- (a) the one (1) catalytic oxidizer, identified as 047 for baking ovens 001 and 027, not later than 180 days after issuance of this permit, F-039-29392-00643, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (b) the one (1) catalytic oxidizer, identified as 029, for baking ovens 028 and 048, not later than 90 days after issuance of this permit, F-039-32174-00643. This test shall be repeated at least once every five years from the date this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Compliance Monitoring Requirements

D.1.5 Catalytic Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer (047), serving the two (2) English muffin lines (Line 001 and Line 027), for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the 3-hour average temperature of 600°F.
- (b) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer (029), serving the bread line (Line 028) and the bun line (048), for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the 3-hour average temperature of 600°F.
- (c) The Permittee shall determine the 3-hour average temperature for each catalytic oxidizer (029 and 047) from the most recent valid stack test for that unit that demonstrates compliance with the limits in Condition D.1.1.

- (d) On and after the date the approved stack test results are available, the Permittee shall operate each catalytic oxidizer (029 and 047) at or above the 3-hour average temperature as observed during the compliant stack test for that unit.

D.1.6 Parametric Monitoring

- (a) The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer (047), serving the two (2) English muffin lines (Line 001 and Line 027), is in operation.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer (029), serving the bread line (Line 028) and the bun line (048), is in operation.
- (c) The Permittee shall determine the appropriate duct pressure or fan amperage of the capture system for each catalytic oxidizer (029 and 047) from the most recent valid stack test that demonstrates compliance with the limit in Conditions D.1.1(a)(2), D.1.1(a)(3), D.1.1(b)(2) and D.1.1(b)(3).
- (d) On and after the date that the stack test results are available for each catalytic oxidizer (029 and 047), the duct pressure, or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.7 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.1.5, and D.1.6, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC BACT limit established in condition D.1.1.
 - (1) The continuous temperature records (on a 3-hour average basis) for each catalytic oxidizer (029 and 047) and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
 - (2) Daily records of the duct pressure or fan amperage of the capture system for each catalytic oxidizer (029 and 047). The Permittee shall include in its daily record when a duct pressure or fan amperage reading is not taken and the reason for the lack of a reading, (i.e. the process did not operate that day).
- (b) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (d) One (1) dry ingredient storage and conveyance system, installed in 2006, 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, with a maximum capacity of 14,310 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
- (1) Two (2) dry ingredient storage silos, identified as emission units 021 and 022, installed in 2006, each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (2) Five (5) dry ingredient storage silos, identified as emission units 030 through 034, installed in 2006, each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (3) Two (2) dry ingredient use bins, identified as emission units 035 and 036, installed in 2006, each with a maximum storage capacity of 2,000 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (4) One (1) dusting flour use bin, identified as emission unit 037, installed in 2006, with a maximum storage capacity of 2,000 pounds of dusting flour, and equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (5) Four (4) muffin scale hoppers, identified as emission units 038 through 041, installed in 2006, each with a maximum storage capacity of 800 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (6) Three (3) bread scale hoppers, identified as emission units 042 through 044, installed in 2006, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (7) Two (2) dusting flour hoppers, identified as emission units 045 and 046, installed in 2006, each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
- (f) One (1) dry ingredient storage and conveyance system for Bun Line 048, approved for construction in 2012, 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, with a maximum [bottlenecked] capacity of 9,200.0 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
- (1) One (1) dry ingredient storage silo, identified as 049, approved for construction in 2012, with a maximum storage capacity of 75 tons, equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (2) Two (2) scale hoppers, identified as emission units 050 and 051, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry

ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.

(3) Two (2) dusting flour hoppers, identified as emission units 052 and 053, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.

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

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

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

- (a) Pursuant to 326 IAC 6-3-2(e)(2), the particulate emissions from each of the following dry ingredient storage and conveying emission units, serving the Bread Line (028) and two (2) English Muffin Lines (001 and 027), shall not exceed the allowable particulate emission rate as listed in the table below:

Emission Unit Type	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)
Each Dry Ingredient Storage Silo	16.68	27.0
Each Dry Ingredient Use Bin	9.75	18.9
Dusting Flour Use Bin	9.75	18.9
Each Muffin Scale Hopper	7.50	15.8
Each Bread Scale Hopper	7.50	15.8

- (b) Pursuant to 326 IAC 6-3-2, particulate matter (PM) emissions from each of the following dry ingredient storage and conveying emission units, serving the Bun Line (048), shall not exceed the allowable PM emission rates listed in the table below:

Emission Unit Type	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)
Dry Ingredient Storage Silo (049)	16.68	27.0
Scale Hoppers (050, 051)	7.50	15.8 <i>each</i>
Dusting Flour Hoppers (052, 053)	7.50	15.8 <i>each</i>

The pound 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:

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

D.2.2 Particulate Emission Limitations [326 IAC 2-2]

- (a) In order to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the particulate matter (PM) emissions from the dry ingredient storage and

conveying emission units, serving the Bread Line (028) and two (2) English Muffin Lines (001 and 027), shall be limited as follows:

Emission Unit Type	Total Dry Ingredient Throughput Limit (tons/year)*	PM Limit (lbs/ton)
7 Dry Ingredient Storage Silos (021, 022, 030, 031, 032, 033, and 034)	99,864	0.314
3 Use Bins (035, 036, and 037)	99,864	0.314
9 Hoppers (038, 039, 040, 041, 042, 043, 044, 045 and 046)	99,864	0.314

* Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

- (b) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the annual material throughput and pound per ton (lb/ton) PM emissions from the following dry ingredient storage and conveying emission units, serving the Bun Line (048), shall not exceed the limitations listed in the table below:

Emission Unit Type	Total Dry Ingredient Throughput Limit ⁽¹⁾ (tons/year)	PM Limit (lbs/ton)
1 Dry Ingredient Storage Silo (049)	40,296	0.314
2 Scale Hoppers (050 & 051)	40,296	0.314
2 Dusting Flour Hoppers (052 & 053)	40,296	0.314
<i>(1) Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.</i>		

Compliance with these limits combined with the potential PM emissions from all other emission units at this source will limit the source-wide total potential to emit of PM, to less than 250 tons per 12 consecutive month period, and will render 326 IAC 2-2 (PSD) not applicable.

D.2.3 Particulate Emission Limitations [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4 (FESOP), PM10 and PM2.5 emissions from the dry ingredient storage and conveying emission units, serving the Bread Line (028) and two (2) English Muffin Lines (001 and 027), shall be limited as follows:

Emission Unit Type	Total Dry Ingredient Throughput Limit (tons/year)*	PM10 Limit (lbs/ton)	PM2.5 Limit (lbs/ton)
7 Dry Ingredient Storage Silos (021, 022, 030, 031, 032, 033, and 034)	99,864	0.110	0.110
3 Use Bins (035, 036, and 037)	99,864	0.110	0.110
9 Hoppers (038, 039, 040, 041, 042, 043, 044, 045 and 046)	99,864	0.110	0.110

* Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

- (b) Pursuant to 326 IAC 2-8-4 (FESOP), the annual material throughput and pound per ton (lb/ton) PM10 and PM2.5 emissions from the following dry ingredient storage and conveying emission units, serving the Bun Line (048), shall not exceed the limitations listed in the table below:

Emission Unit Type	Total Dry Ingredient Throughput Limit ⁽¹⁾ (tons/year)	PM10 Limit (lbs/ton)	PM2.5 Limit (lbs/ton)
1 Dry Ingredient Storage Silo (049)	40,296	0.110	0.110
2 Scale Hoppers (050 & 051)	40,296	0.110	0.110
2 Dusting Flour Hoppers (052 & 053)	40,296	0.110	0.110
<i>(1) Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.</i>			

Compliance with these limits combined with the potential PM10, and PM2.5 emissions from all other emission units at this source will limit the source-wide total potential to emit of PM10, and PM2.5 to less than 100 tons per 12 consecutive month period, and will render 326 IAC 2-7 (Part 70 Permits) not applicable.

D.2.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for each of the dry ingredient storage and conveying emission units and any associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.5 Particulate Control

- (a) In order to comply with Conditions D.2.1, D.2.2, and D.2.3, particulate from each of the dry ingredient storage and conveying emission units shall be controlled by a filter unit at all times that each of the dry ingredient storage and conveying emission units is in operation.
- (b) In the event that filter failure is observed in a multi-compartment filter 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 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.6 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across each of the baghouses used in conjunction with each of the dry ingredient storage and conveying emission units, at least once per day when the process is in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 1.0 and 5.0 inches of water or a range established during the latest stack test. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.7 Broken or Failed Filter Detection

- (a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.8 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.2.2(a) and D.2.3(a), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the seven (7) dry ingredient storage silos (021, 022, 030, 031, 032, 033, and 034).
- (b) To document the compliance status with Conditions D.2.2(a) and D.2.3(a), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the three (3) use bins (035, 036, and 037).
- (c) To document the compliance status with Conditions D.2.2(a) and D.2.3(a), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the nine (9) hoppers (038, 039, 040, 041, 042, 043, 044, 045 and 046).
- (d) To document the compliance status with Conditions D.2.2(b) and D.2.3(b), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the one (1) dry ingredient storage silo (049).
- (e) To document the compliance status with Conditions D.2.2(b) and D.2.3(b), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the two (2) scale hoppers (050 and 051).
- (f) To document the compliance status with Conditions D.2.2(b) and D.2.3(b), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the two (2) dusting flour hoppers (052 and 053).
- (g) To document the compliance status with Condition D.2.6, the Permittee shall maintain daily records of the pressure drop across each of the baghouses controlling each of the dry ingredient storage and conveying emission units. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).

- (h) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.2.9 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.2.2(a) and D.2.2(b), shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Indirect Heating Units

- (a) One (1) auxiliary boiler, burning natural gas, identified as emission unit 002, installed in 2006, rated at 1 MMBtu per hour;
- (b) One (1) process hot water heater, burning natural gas, identified as emission unit 003, installed in 2006, rated at 0.54 MMBtu per hour;
- (c) One (1) domestic hot water heater, burning natural gas, identified as emission unit 004, installed in 2006, rated at 0.3 MMBtu per hour;

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

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

D.3.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the particulate emissions from the auxiliary boiler, process hot water heater, and domestic hot water heater shall not exceed 0.6 pounds per million British thermal unit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)_____
- Report (specify)_____
- Notification (specify)_____
- Affidavit (specify)_____
- Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

**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**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">• 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 |
|--|

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

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

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 Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
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 facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: Seven (7) Dry Ingredient Storage Silos (021, 022, 030, 031, 032, 033, and 034)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 62,678 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: Three (3) Use Bins (035, 036, and 037)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 62,678 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: Nine (9) Hoppers (038, 039, 040, 041, 042, 043, 044, 045 and 046)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 62,678 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: One (1) Dry Ingredient Storage Silo (049)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 40,296 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: Two (2) Scale Hoppers (050 & 051)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 40,296 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: Two (2) Dusting Flour Hoppers (052 & 053)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 40,296 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked <input type="checkbox"/>No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> 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:	

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: _____

**Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY**

**Allen Foods, Inc.
53075 Frederic Drive
Elkhart, Indiana 46514**

Attachment A

**COMMERCIAL BAKERY
FUGITIVE PARTICULATE MATTER EMISSIONS
CONTROL PLAN**

F039-29392-00643

ATTACHMENT A

FUGITIVE DUST CONTROL PLAN

- (a) Fugitive particulate matter emissions from paved roads and parking lots shall be controlled by cleaning by vacuum sweeping on an as needed basis.
- (b) There will be no unpaved roads or parking lots at the facility.
- (c) Plan Implementation: The effective date of this plan was July 13, 2006.

Reference

The Indiana Administrative Code, Title 326 Air Pollution Control Board, Article 6. Particulate Rules, weblink:
<http://www.in.gov/legislative/iac/T03260/A00060.PDF?> . See page 12 for Rule 5. Fugitive Particulate Matter Emission Limitations.

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

Technical Support Document (TSD) for a Significant Permit Revision to a Federally
Enforceable State Operating Permit (FESOP)

Source Description and Location

Source Name: Allen Foods, Inc.
Source Location: 53075 Frederic Dr, Elkhart, Indiana 46514
County: Elkhart
SIC Code: 2051 (Bread and Other Bakery Products, Except Cookies and Crackers)
Operation Permit No.: F039-29392-00643
Operation Permit Issuance Date: March 30, 2012
Significant Permit Revision No.: F039-32174-00643
Permit Reviewer: Hannah L. Desrosiers

On August 2, 2012, the Office of Air Quality (OAQ) received an application from Allen Foods, Inc. related to a modification to an existing stationary commercial bakery.

Existing Approvals

The source has been operating under FESOP Renewal No. F039-29392-00643, issued on March 30, 2012.

County Attainment Status

The source is located in Elkhart County. The following attainment status designations are applicable to Elkhart County:

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.	

(Air Pollution Control Board; 326 IAC 1-4-21; filed Dec 26, 2007, 1:43 p.m.: 20080123-IR-326070308FRA)

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5
Elkhart County has been classified as attainment for PM2.5. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct PM2.5 significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

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

Fugitive Emissions

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

Status of the Existing Source

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

Intentionally left blank..... continued on next page.....

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)									Worst Single HAP
	PM	PM10*	PM2.5**	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e***	Total HAPs	
English Muffin Lines (001 & 027) ⁽²⁾	0.04	0.17	0.17	0.01	2.30	26.76	1.93	2,776	4.44	0.78 Acetal- dehyde
Bread Line 028 ⁽²⁾	0.08	0.34	0.34	0.03	4.42	24.46	3.71	5,330	0.27	
Dry Ingredient Storage & Handling ⁽¹⁾	29.52	10.34	10.34	0.00	0.00	0.00	0.00	0	0.00	
Insignificant Natural Gas Combustion	0.23	0.90	0.90	0.07	11.90	0.65	9.99	14,362	0.22	
Fugitive Emissions from Paved Roads	4.10	0.82	0.20	0	0	0	0	0	0	
Total PTE of Entire Source Less Fugitives	29.87	11.76	11.76	0.11	18.61	51.88	15.63	22,469	1.13	0.78
Title V Major Source Thresholds***	NA	100	100	100	100	100	100	100,000 CO ₂ e	25	10
PSD Major Source Thresholds***	250	250	250	250	250	250	250	100,000 CO ₂ e	NA	NA

NA = not applicable

This PTE table is from the TSD for FESOP Renewal No.: F039-29392-00643, issued on March 30, 2012. The Emissions from the two (2) English Muffin Lines (001 & 027) have been combined since they share a catalytic oxidizer.

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

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

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

(1) Emissions from the Dry Ingredient Storage & Conveying are limited to render 326 IAC 2-7 and 326 IAC 2-2 not applicable.

(2) VOC emissions from the baking ovens are limited pursuant to 326 IAC 8-1-6.

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, 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 PSD (326 IAC 2-2) or Title V (326 IAC 2-7), because the potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year.
- (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs 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).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Allen Foods, Inc. on August 2, 2012, relating to the construction of a new bun line, including a natural gas-fired baking oven and proof box, one (1) dry ingredient storage silo, two (2) scale hoppers, two (2) dusting flour hoppers, four (4) inkjet printers and one (1) natural gas-fired space heater. Additionally, Allen Foods, Inc. has requested the term "dough" in each of the oven throughput descriptions be replaced with the term "baked product". And finally, Allen Foods, Inc. has requested that the catalytic oxidizer serving the two (2) english muffin line baking ovens (001 & 027), currently identified as emission unit 030, be renumbered as emission unit 047 to avoid confusion, since one (1) of the existing dry ingredient storage silos was previously identified as emission unit 030.

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

- (a) One (1) Bun Line, identified as Line 048, approved for construction in 2012, with a maximum throughput capacity of 4.60 tons of baked product per hour, consisting of:
 - (1) One (1) natural gas direct-fired baking oven, identified as emission unit 048, with a heat input capacity of 8.40 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer, identified as emission unit 029, and exhausting through one (1) vent (S17); and
 - (2) One (1) proof box, identified as Line 048 Proof Box.
- (b) One (1) dry ingredient storage and conveyance system, approved for construction in 2012, 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, with a maximum [bottlenecked] capacity of 9,200.0 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:
 - (1) One (1) dry ingredient storage silo, identified as 049, approved for construction in 2012, with a maximum storage capacity of 75 tons, equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (2) Two (2) scale hoppers, identified as emission units 050 and 051, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
 - (3) Two (2) dusting flour hoppers, identified as emission units 052 and 053, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.
- (c) Insignificant activities consisting of the following:
 - (1) One (1) natural gas-fired space heater, identified as emission unit 054, approved for construction in 2012, with a maximum heat input capacity of 3.5 MMBtu per hour, uncontrolled and exhausting inside the building.
 - (2) Ten (10) Inkjet printers for the application of product codes onto product bags, approved for construction in 2012, with an anticipated maximum ink usage of less than or equal to 4.20 gallons/yr, each, and an anticipated maximum usage of makeup solvent of less than or equal to 10.90 gallons/yr, each, uncontrolled and exhausting inside the building;

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

- (a) One (1) english muffin line, identified as Line 001, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of:
 - (1) One (1) natural gas-fired baking oven, identified as emission unit 001, with a heat input capacity of 2.85 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047, and exhausting through common stack S30; and
 - (2) One (1) proof box, identified as Line 001 Proof Box.
- (b) One (1) english muffin line, identified as Line 027, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of:

- (1) One (1), natural gas-fired baking oven, identified as emission unit 027, with a heat input capacity of 2.40 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047, and exhausting through common stack S30.
 - (2) One (1) proof box, identified as Line 027 Proof Box.
- (c) One (1) bread line, identified as Line 028, constructed in 2006, with a maximum throughput capacity of 7.20 tons of baked product per hour, consisting of:
- (1) One (1) natural gas-fired baking oven, identified as emission unit 028, with a heat input capacity of 10.08 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer identified as emission unit 029, exhausting through one (1) vent (S17); and
 - (2) One (1) proof box, identified as Line 028 Proof Box.

Enforcement Issues

Catalytic oxidizer 029 is an existing control device currently serving the bread line baking oven (028). The last valid stack test occurred on August 15, 2007. Testing is overdue for this unit, as it was required to be conducted by August 15, 2012. IDEM is reviewing this matter and will take the appropriate action.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations. Additionally, the following applies:

- (a) During this review, an error was discovered in the emissions calculations for the existing Dry Ingredient Storage and Conveying as reported in NSR FESOP No.: F039-22633-00643, and then carried over to FESOP Renewal No.: F039-29392-00643. The existing maximum dry ingredient throughput was based on a maximum batch production rate of 14,310 lbs/hr (7.2 tons/hr), which appears to be the maximum batch production rate of only the 1 bread line (160 loaves/min or 7.2 tons of bread/hr). However, a maximum ingredient throughput, based on maximum batch production of the 1 bread line and 2 muffin lines would take into consideration the maximum batch production rate of the 1 bread line (160 loaves/min or 7.2 tons of bread/hr), plus the maximum batch production rate of each muffin line (504 pieces/min or 2.1 tons of muffins/hr), as follows:
- 14,310 lbs/hr (or 7.16 tons of bread/hr) + 4,200 lbs/hr (2.1 tons of muffins/hr) + 4,200 lbs/hr (2.1 tons of muffins/hr), for a total of 22,710 lbs/hr.
- The emissions calculations, and the permit, have been updated to account for the change in the facility's operational bottleneck.
- (b) Allen Foods, Inc. has reported the maximum dry ingredient throughput for the new dry ingredient (flour) storage silo as 556 lbs/minute (33,360 lbs/hr or 16.68 tons/hr), and the maximum ingredient throughput for each of the new scale hoppers and each of the new dusting flour hoppers as 250 lbs/minute (15,000 lbs/hr for each hopper, or 30,000 lbs/hr combined per hopper type). However, the maximum batch production rate of the new bun line (1,758 buns/min or 4.6 tons of baked product/hr), inherently limits the maximum ingredient throughput to the line. Therefore, the potential to emit from these operations has been calculated taking into account this operational bottleneck.
- (c) The limited emissions for the two (2) English Muffin Lines (001 & 027), as documented in "Limited Emissions (Tons/Yr)" table in the recent FESOP Renewal (No.: F039-29392-00643) TSD Appendix A: Emission Calculations and the "Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)" table in the TSD, have been corrected in this revision to reflect the limits established in the TSD Appendix B-2: Best Available Control Technology (BACT) Analysis Determination, and as documented on page 9 of 14 of the FESOP Renewal TSD, and in Note "A" to the TSD Appendix A: Emission Calculations, Limited Emissions (Tons/Yr)" table. Based on the

combined VOC emissions limit of 1.52 lbs/hr from the catalytic oxidizer 030 (renumbered as 047), the Limited PTE should be 20.10 tons/yr, not 26.76 tons/yr.

- (d) The existing BACT VOC Emissions Limit (lbs/hr) for the Bread Line (028) was established in the NSR FESOP (#F039-22633-00643), issued 07/13/2006. This historic limit is based on the unlimited PTE (tons/yr) as determined from the equation in AP 42, Section 9.9.6 - Bread Baking.

The new combined BACT VOC emissions limit for the existing bread line (028) and the new bun line (048), jointly controlled by catalytic oxidizer 029 and exhausting through vent S17, is calculated as follows:

Existing Bread Line (028)

$$\begin{aligned} \text{Emission Limit (lbs/hr)} &= \text{PTE (tons/yr)} * (1 - \text{Control Efficiency}) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) \\ &= (200.27 \text{ tons/yr}) * (1 - 0.95) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) = \underline{2.29 \text{ lbs/hr}} \end{aligned}$$

NEW Bun Line (048)

$$\begin{aligned} \text{Emission Limit (lbs/hr)} &= \text{PTE (tons/yr)} * (1 - \text{Control Efficiency}) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) \\ &= (176.19 \text{ tons/yr}) * (1 - 0.95) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) = \underline{2.01 \text{ lbs/hr}} \end{aligned}$$

Combined Limit (029)

$$\begin{aligned} \text{Emission Limit (lbs/hr)} &= \text{Existing Bread Line limit (lbs/hr)} + \text{NEW Bun Line limit (lbs/hr)} \\ &= 2.29 \text{ lbs/hr} + 2.01 \text{ lbs/hr} = \underline{4.30 \text{ lbs/hr}} \end{aligned}$$

- (e) Four (4) Inkjet printers were approved for construction as part of the NSR FESOP No.: F039-22633-00643, issued on July 13, 2006. An additional two (2) printers were approved for construction, and a change in ink and solvent was reviewed and approved, as part of FESOP Renewal No.: F039-29392-00643. The six (6) existing Inkjet printers were determined to produce insignificant VOC emissions. Therefore, they were not included in the TSD Appendix A: Emissions Calculations, TSD "PTE After Issuance" table, or the Permit for FESOP Renewal No.: F039-29392-00643. As part of this revision, the emissions from these units have been addressed since the source is adding 4 more of the same printers and it is necessary to document the change in emissions. Finally, to avoid future confusion, a description is being added to Section A.3: Insignificant Activities, of the permit.

Permit Level Determination – FESOP Revision
--

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Intentionally left blank..... continued on next page.....

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP
Existing Dry Ingredient Storage & Handling ⁽¹⁾										
7 Dry Ingredient Storage Silos (021, 022, 030, 031, 032, 033, and 034)	156.79 98.40	54.93 34.47	54.93 34.47	0	0	0	0	0	0	N/A
2 Dry Ingredient Use Bins (035 and 036) and 1 Dusting Flour Use Bin (037)	156.79 98.40	54.93 34.47	54.93 34.47	0	0	0	0	0	0	N/A
7 Scale Hoppers (038, 039, 040, 041, 042, 043, 044) and 2 Dusting Flour Hoppers (045 and 046)	156.79 98.40	54.93 34.47	54.93 34.47	0	0	0	0	0	0	N/A
Total	470.36 295.24	164.78 103.42	164.78 103.42	0	0	0	0	0	0	N/A
NEW Bun Line 048										
Oven (Process)	0	0	0	0	0	176.19	0	0	0.21	0.21 (acetaldehyde)
Proof Box	0	0	0	0	0	17.62	0	0	0.02	0.02 (acetaldehyde)
Oven (natural gas combustion)	0.07	0.28	0.28	0.02	3.68	0.20	3.09	4,442	0.07	0.07 (hexane)
NEW Dry Ingredient Storage & Handling										
Dry Ingredient Storage Silo (049)	63.26	22.16	22.16	0	0	0	0	0	0	N/A
2 Scale Hoppers (050, 051)	63.26	22.16	22.16	0	0	0	0	0	0	N/A
2 Dusting Flour Hoppers (052, 053)	63.26	22.16	22.16	0	0	0	0	0	0	N/A
10 Inkjet Printers	0	0	0	0	0	0.48	0	0	0	N/A
NEW Natural Gas Combustion unit (Space heater 054)	0.03	0.12	0.12	0.01	1.53	0.08	1.29	1,851	0.03	0.03 (hexane)
Total PTE of Proposed Revision	189.89	66.88	66.88	0.03	5.21	194.29	4.38	6,293	0.33	0.23 (acetaldehyde)
N/A = not applicable										
(1) This change in emissions, resulting from the correction of the material throughput through the existing dry ingredient storage & handling operations, does not count toward the Potential to Emit for this proposed revision, and is shown for documentation purposes only. See the "Emission Calculations" Section for more detail.										

Pursuant to 326 IAC 2-8-11.1(f)(1)(E), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision is not an Administrative Amendment or Minor Permit revision and the proposed revision involves the construction of new emission units with potential to emit greater than or equal to twenty-five (25) tons per year of the following pollutants: PM, PM10, PM2.5, and VOC. Additionally, pursuant to 326 IAC 2-8-11.1(f)(1)(C), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision is subject to 326 IAC 8-1-6 BACT. And finally, pursuant to 326 IAC 2-8-11.1(g), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision requires adjustment of the FESOP emission limitations.

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source (*reflecting adjustment of existing limits*), with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
English Muffin Lines (001 & 027) ^(1, 2)	0.04	0.17	0.17	0.01	2.30	20.10 26.76	1.93	2,776	0.64 4.44	0.60 (acetaldehyde)
Bread Line & NEW Bun Line (028 & 048) ⁽²⁾	0.15 0.08	0.62 0.34	0.62 0.34	0.05 0.03	8.09 4.42	51.09 24.46	6.80 3.74	9,772 5,330	0.153 0.27	0.1460 0.48 (hexane)
Dry Ingredient Storage & Handling ^(3, 4)	66.02 29.52	23.13 10.34	23.13 10.34	0	0	0	0	0	0	NA
10 Inkjet Printers	0	0	0	0	0	0.48	0	0	0	NA
Insignificant Natural Gas Combustion	0.26 0.23	1.02 0.90	1.02 0.90	0.08 0.07	13.43 11.90	0.74 0.65	11.28 9.99	16,213 14,362	0.25 0.22	0.24 0.24 (hexane)
Fugitive Emissions from Paved Roads	4.10	0.82	0.20	0	0	0	0	0	0	NA
Total PTE of Entire Source	66.47 29.87	24.94 11.76	24.94 11.76	0.14 0.11	23.82 18.61	72.42 51.88	20.01 15.63	28,761 22,469	1.75 1.13	0.66 0.78 (acetaldehyde)
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

NA = not applicable

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

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

- (1) The VOC emissions from English Muffin Lines (001 & 027) reflect the correction annual emissions as documented in the "Emission Calculations" Section above. Additionally, the Total HAPs value has been corrected to reflect the limited emissions, and not the unlimited emissions.
- (2) VOC emissions from the baking ovens are limited pursuant to 326 IAC 8-1-6.
- (3) Emissions from the Dry Ingredient Storage & Conveying reflect the correction to the material throughput for the existing dry ingredient storage & handling operations as documented in the "Emission Calculations" Section above, and the addition of the NEW Bun Line Dry Ingredient Storage & Conveying.
- (4) Emissions from the Dry Ingredient Storage & Conveying are limited to render 326 IAC 2-7 and 326 IAC 2-2 not applicable.

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

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
English Muffin Lines (001 & 027) ⁽¹⁾	0.04	0.17	0.17	0.01	2.30	20.10	1.93	2,776	0.64	0.60 (acetaldehyde)
Bread Line & NEW Bun Line (028 & 048) ⁽¹⁾	0.15	0.62	0.62	0.05	8.09	51.09	6.80	9,772	0.153	0.146 (hexane)
Dry Ingredient Storage & Handling ⁽²⁾	66.02	23.13	23.13	0	0	0	0	0	0	NA
10 Inkjet Printers	0	0	0	0	0	0.48	0	0	0	NA
Insignificant Natural Gas Combustion	0.26	1.02	1.02	0.08	13.43	0.74	11.28	16,213	0.25	0.24 (hexane)
Fugitive Emissions from Paved Roads	4.10	0.82	0.20	0	0	0	0	0	0	NA
Total PTE of Entire Source	66.47	24.94	24.94	0.14	23.82	72.42	20.01	28,761	1.75	0.66 (acetaldehyde)
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

NA = not applicable

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

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

(1) VOC emissions from the baking ovens are limited pursuant to 326 IAC 8-1-6.

(2) Emissions from the Dry Ingredient Storage & Conveying are limited to render 326 IAC 2-7 and 326 IAC 2-2 not applicable.

FESOP and PSD Minor Status

- (a) This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).
- (1) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the annual material throughput and pound per ton (lb/ton) PM10 and PM2.5 emissions from the following dry ingredient storage and conveying emission units, serving the Bun Line (048), shall not exceed the limitations listed in the table below:

Intentionally left blank..... continued on next page.....

Emission Unit Type	Total Dry Ingredient Throughput Limit ⁽¹⁾ (tons/year)	PM10 Limit ⁽²⁾ (lbs/ton)	PM2.5 Limit ⁽²⁾ (lbs/ton)
1 Dry Ingredient Storage Silo (049)	40,296	0.110	0.110
2 Scale Hoppers (050 & 051)	40,296	0.110	0.110
2 Dusting Flour Hoppers (052 & 053)	40,296	0.110	0.110
<p>(1) Limited Throughput (tons/yr) based on the maximum batch production rate (operational bottleneck) of the new bun line, which is 1,758 buns/min (4.6 tons of baked product/hr).</p> <p>(2) PM10/PM2.5 Limit (lbs/ton) based on Emission Factors from AP-42 Table 11.12-2 for uncontrolled truck unloading of cement supplement to elevated storage silo (pneumatic). Uncontrolled emission Factors have been converted to controlled emission factors, as follows: [Controlled Emission Factor (lb pollutant/ton grain) / (1 - control efficiency/100)], where the control efficiency is assumed 90%.</p>			

- (2) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the combined VOC emissions from the bread line baking oven (028) and the bun line baking oven (048), jointly controlled by catalytic oxidizer 029 and exhausting through vent S17, shall not exceed 4.30 lbs/hr.

Note: This VOC limit, which renders 326 IAC 2-7 and 326 IAC 2-2 (PSD) not applicable, is similar to the VOC BACT limit pursuant to 326 IAC 8-1-6.

This is a change from the following existing limit: "The VOC emissions from baking oven 028, exhausting through vent S17, shall not exceed 2.29 lbs/hr". This is a Title I change.

Compliance with these limits, combined with the potential to emit PM10, PM2.5, and VOCs from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, and VOCs, to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

- (b) This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

- (1) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the annual material throughput and pound per ton (lb/ton) PM emissions from the following dry ingredient storage and conveying emission units, serving the Bun Line (048), shall not exceed the limitations listed in the table below:

Emission Unit Type	Total Dry Ingredient Throughput Limit ⁽¹⁾ (tons/year)	PM Limit ⁽²⁾ (lbs/ton)
1 Dry Ingredient Storage Silo (049)	40,296	0.314
2 Scale Hoppers (050 & 051)	40,296	0.314
2 Dusting Flour Hoppers (052 & 053)	40,296	0.314
<p>(1) Limited Throughput (tons/yr) based on the maximum batch production rate (operational bottleneck) of the new bun line, which is 1,758 buns/min (4.6 tons of baked product/hr).</p> <p>(2) PM Limit (lbs/ton) based on Emission Factors from AP-42 Table 11.12-2 for uncontrolled truck unloading of cement supplement to elevated storage silo (pneumatic). Uncontrolled emission Factors have been converted to controlled emission factors, as follows: [Controlled Emission Factor (lb pollutant/ton grain) / (1 - control efficiency/100)], where the control efficiency is assumed 90%.</p>		

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) 40 CFR 60, Subpart DD - Standards of Performance for Grain Elevators
The requirements of 326 IAC 12 or 40 CFR 60, Subpart DD, (60.300 through 60.304), New Source Performance Standards (NSPS) for Grain Elevators, are not included for this proposed revision, since the new dry ingredient (e.g. flour, corn meal, etc.) storage silo does not meet the definition of a "grain terminal elevator", as defined under 40 CFR 60.301(c), or a "grain storage elevator", as defined under 40 CFR 60.301(f), and is not equipped with any type of grain elevator.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) 40 CFR 63, Subpart CCCC - NESHAPs: Manufacturing of Nutritional Yeast
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Manufacturing of Nutritional Yeast, 40 CFR 63, Subpart CCCC (4C) (326 IAC 20-51), are not included for this proposed revision, since this source is not a major source of HAPs. Additionally, this existing commercial bakery does not manufacture nutritional yeast, but instead uses pre-manufactured yeast to produce baked goods.
- (b) 40 CFR 63, Subpart DDDDD - NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (5D) (326 IAC 20-95), included for this proposed revision, since this source is not a major source of HAPs, and is not located at nor is a part of a major source of HAP emissions.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination - Entire Source

The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-8-4 (FESOP)
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided for in 326 IAC 2-6-5.
- (d) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall continue to 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.
- (f) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (g) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

State Rule Applicability – Individual Facilities

Bun Line (048) Baking Oven and Proof Box - Process Emissions

- (a) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new bun line (048) is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (b) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) applicability is discussed in the "Bun Line (048) - Dry Ingredient Storage and Conveying" section below.
- (c) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The unlimited VOC potential emissions from the new bun line (048) is greater than twenty-five (25) tons per year. Additionally, due to the nature of the operation, the source is unable to limit the VOC potential emissions from the new bun line (048) to less than twenty-five (25) tons per year. Therefore, the proposed revision is subject to the requirements of 326 IAC 8-1-6 (see Appendix B to this TSD for the BACT Analysis Determination).

IDEM has determined that the best available control technology (BACT) to control VOC emissions from the new bun line (048) shall be as follows:

- (1) The VOC emissions from baking oven 048 shall be controlled by a catalytic oxidizer.
- (2) The minimum overall VOC control efficiency for the catalytic oxidizer, including capture efficiency and destruction efficiency, shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.
- (3) The combined VOC emissions from the bread line baking oven (028) and the bun line baking oven (048), jointly controlled by catalytic oxidizer 029 and exhausting through vent S17, shall not exceed 4.30 lbs/hr.
- (4) The source shall operate Bun Line 048 (consisting of the baking oven and proof box) in accordance the manufacturer's design and operating specifications.
- (5) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box associated with Bun Line 048, on a weekly 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) Knock down all dough and residue from interior framework;
 - (ii) Sweep floor;
 - (iii) Use floor scraper for excess debris;
 - (iv) Foam floor and scrub with brush;
 - (v) Rinse Floor;

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

- (d) There are no other 326 IAC 8 Rules that are applicable to the new bun line (048).

Bun Line (048) - Dry Ingredient Storage and Conveying

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

The requirements of 326 IAC 6-3 are applicable to each of the Bun Line dry ingredient storage and conveying emission units. Therefore, pursuant to 326 IAC 6-3-2, particulate matter (PM) emissions from each of the following dry ingredient storage and conveying emission units, serving the Bun Line (048), shall not exceed the allowable PM emission rates listed in the table below:

Emission Unit Type	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)
1 Dry Ingredient Storage Silo (049)	16.68	27.0
2 Scale Hoppers (050 & 051)	7.50	15.8 <i>each</i>
2 Dusting Flour Hoppers (052 & 053)	7.50	15.8 <i>each</i>

The pound per hour limitations were calculated using the following equation:

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

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

In order to comply with the allowable rates of emission, particulate from each of the dry ingredient storage and conveying emission units shall be controlled by a filter unit at all times that each of the dry ingredient storage and conveying emission units is in operation.

Bun Line (048) Baking Oven and Space Heater - Natural Gas Combustion

- (a) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The one (1) natural gas-fired baking oven (048) and the one (1) natural gas-fired space heater (054), each, do not meet the definition of an indirect heating unit, as defined in 236 IAC 1-2-19. Therefore, the requirements of 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units) do not apply, and are not included for this proposed revision.
- (b) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
(1) Pursuant to 326 IAC 6-3-1(b)(14), the natural gas-fired baking oven (048) is exempt from the requirements of 326 IAC 6-3, because potential particulate emissions are less than five hundred fifty-one thousandths (0.551) pound per hour.
(2) The natural gas-fired space heater (054), does not meet the definition of a "manufacturing process", as defined in 326 IAC 6-3-1.5(2). Therefore, this unit is exempt from 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), and the requirements are not included for this proposed revision.
- (c) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)
The potential SO₂ emissions from the one (1) natural gas-fired baking oven (048) and the one (1) natural gas-fired space heater (054), each, are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively. Therefore, the requirements of 326 IAC 7-1.1-2 do not apply, and are not included for this proposed revision.
- See Appendix A for the detailed calculations.
- (d) 326 IAC 9-1 (Carbon Monoxide Emission Limits)
The one (1) natural gas-fired baking oven (048) and the one (1) natural gas-fired space heater (054), are each not one of the source types listed in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1 (Carbon Monoxide Emission Limits) do not apply and are not included for this proposed revision.
- (e) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category)
The one (1) natural gas-fired baking oven (048) and the one (1) natural gas-fired space heater (054), each, do not meet the definition of an affected facility, as defined in 326 IAC 10-3-1(a), because each unit has a maximum a heat input of less than two hundred fifty million (250,000,000) British thermal units per hour (MMBtu). Therefore, the requirements of 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category) do not apply and are not included for this proposed revision.

Compliance Determination, Monitoring and Testing Requirements
--

The compliance determination and monitoring requirements applicable to this proposed revision are as follows:

- (a) Compliance Determination Requirements:
- (1) In order to comply with the PSD Minor, FESOP, and BACT VOC limitations in the permit, the catalytic oxidizer (029) for the natural gas-fired baking oven (048) shall be in operation and control emissions from the bun line baking oven at all times when the baking oven is in operation. *Note: this is a new requirement for this source. This is a Title I change.*
- (2) In order to comply with the PSD Minor PM, and FESOP PM₁₀, and PM_{2.5} limitations in the permit, the one (1) filter unit for the dry ingredient storage and conveyance system, serving

the Bun Line (048), shall be in operation and control emissions from each of the dry ingredient storage and conveyance emission units at all times that each of the dry ingredient storage and conveyance emission units is in operation. *Note: this is a new requirement for this source. This is a Title I change.*

- (3) There are no compliance determination requirements applicable to the natural gas-fired space heater.

(b) Compliance Monitoring Requirements:

Control/Emission Unit	Operating Parameters	Frequency	Range
Catalytic Oxidizer (029) ⁽¹⁾ for Baking Oven (048)	Temperature	Continuous	3 hr avg. > 600 °F
	Duct Pressure/ Fan Amperage	Daily	Normal vs. Abnormal
Filter Unit for the NEW Dry Ingredient Storage and Conveying ⁽²⁾	Water Pressure Drop	Daily	1.0 to 5.0 inches

- (1) These compliance monitoring requirements are necessary because the catalytic oxidizer must be operated properly to ensure compliance with 326 IAC 8-1-6 (BACT) and 326 IAC 2-8 (FESOP), and to render the requirements of 326 IAC 2-2 (PSD) not applicable.

Note: this is an existing requirement for this source, since this existing control device, constructed in 2006, currently serves the existing Bread Line (028).

- (2) These compliance monitoring requirements are necessary because the filter unit must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-8-4 (FESOP), and the limits that render the requirements of 326 IAC 2-2 (PSD) not applicable.

Note: this is a new requirement for this source. This is a Title I change.

- (3) There are no compliance monitoring requirements applicable to the natural gas-fired space heater.

(c) Testing Requirements:

Testing Requirements				
Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Bun Line Baking Oven (048)	Catalytic Oxidizer (029)	VOC <i>(emission rate and overall control efficiency)</i>	90 days after issuance of FESOP SPR No.: F039-32174-00643	once every five (5) years

- (1) Catalytic oxidizer 029 is an existing control device currently serving the bread line baking oven (028). The last valid stack test occurred on August 15, 2007. Testing is currently overdue for this unit, as it was required to be conducted by August 15, 2012. However, with the addition of the new Bun Line (048), in order to demonstrate compliance with the Best Available Control Technology (BACT) requirements in the permit, testing of the catalytic oxidizer (029), serving the bread line baking oven (028) and the new bun line baking oven (048), shall be conducted not later than 90 days after issuance this permit.

This is a revised requirement for this source. The compliance date has been changed to reflect the addition of the new bun line (048). This is a Title I change.

- (2) There are no testing requirements applicable to the filter unit for the dry ingredient storage and conveyance system, or the natural gas-fired space heater.

Proposed Changes

The following changes listed below are due to the proposed revision:

1. Entire Permit - the emission unit ID number for the catalytic oxidizer serving the two (2) english muffin line baking ovens (001 & 027) has been renumbered from 030 to 047 throughout;
2. Sections A.2 - Emission Units and Pollution Control Equipment Summary, D.1 - Emission Unit Operation Conditions for the Baking Lines, and D.2 - Emission Unit Operation Conditions for the Dry Ingredient Storage and Conveyance, have been revised to include the emissions unit descriptions for the new bun line, including a natural gas-fired baking oven and proof box, one (1) dry ingredient silo, two (2) scale hoppers, and two (2) dusting flour hoppers;
3. Sections A.2 - Emission Units and Pollution Control Equipment Summary, D.1 - Emission Unit Operation Conditions for the Baking Lines, and D.2 - Emission Unit Operation Conditions for the Dry Ingredient Storage and Conveyance, have been revised to replace the term "dough" with the term "baked product".
4. Section A.3 - Insignificant Activities has been revised to include the emissions unit descriptions for the one (1) new natural gas-fired space heater and ten (10) inkjet printers;
5. Section D.1.1 - New Facilities, General Reduction Requirements has been revised to include the BACT requirements for the new Bun Line (048);
6. Sections D.1.4 - Testing Requirements, D.1.5 - Catalytic Oxidizer Temperature, D.1.6 - Parametric Monitoring, and D.1.7 - Record Keeping Requirements have been revised to distinguish between the two (2) existing catalytic oxidizers (029 & 047), and to include reference to the new Bun Line (048) as applicable;
7. Sections D.2.1 - Particulate Emission Limitations for Manufacturing Processes, D.2.2 - Particulate Emission Limitations, and D.2.3 - Particulate Emission Limitations have been revised to include the 326 IAC 6-3, PSD, and FESOP limits for the Bun Line (048) dry ingredient storage silo, two (2) scale hoppers, and two (2) dusting flour hoppers;
8. Sections D.2.4 - Preventive Maintenance Plan, D.2.6 - Parametric Monitoring, D.2.8 - Record Keeping Requirements, and D.2.9 - Reporting Requirements have been revised to include reference to the new Bun Line (048) dry ingredient storage silo, two (2) scale hoppers, and two (2) dusting flour hoppers;
9. New FESOP Quarterly Report Forms have been added to the back of the permit to aide in documenting the compliance status with the new limits for the Bun Line (048) dry ingredient storage silo, two (2) scale hoppers, and two (2) dusting flour hoppers;

The Permit has been revised as follows, with deleted language shown as ~~strikeouts~~ and new language **bolded**. Permit conditions have been renumbered as needed to accommodate the above-listed revisions.

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

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

- (a) One (1) english muffin line, identified as Line 001, constructed in 2006, with a maximum throughput capacity of 2.10 tons of **baked product** per hour, consisting of:
- (1) One (1) natural gas-fired baking oven, identified as emission unit 001, with a heat input capacity of 2.85 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit ~~047030~~, and exhausting through common stack S30; and
- *****
- (b) One (1) english muffin line, identified as Line 027, constructed in 2006, with a maximum throughput capacity of 2.10 tons of **baked product** per hour, consisting of:
- (1) One (1), natural gas-fired baking oven, identified as emission unit 027, with a heat input capacity of 2.40 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit ~~047030~~, and exhausting through common stack S30.
- *****
- (c) One (1) bread line, identified as Line 028, constructed in 2006, with a maximum throughput capacity of 7.20 tons of **baked product** per hour, consisting of:
- *****
- (e) **One (1) Bun Line, identified as Line 048, approved for construction in 2012, with a maximum throughput capacity of 4.60 tons of baked product per hour, consisting of:**
- (1) **One (1) natural gas direct-fired baking oven, identified as emission unit 048, with a heat input capacity of 8.40 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer, identified as emission unit 029, and exhausting through one (1) vent (S17); and**
- (2) **One (1) proof box, identified as Line 048 Proof Box.**
- (f) **One (1) dry ingredient storage and conveyance system for Bun Line 048, approved for construction in 2012, 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, with a maximum [bottlenecked] capacity of 9,200.0 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:**
- (1) **One (1) dry ingredient storage silo, identified as 049, approved for construction in 2012, with a maximum storage capacity of 75 tons, equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.**
- (2) **Two (2) scale hoppers, identified as emission units 050 and 051, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.**
- (3) **Two (2) dusting flour hoppers, identified as emission units 052 and 053, approved for construction in 2012, each with a maximum**

storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.

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

This stationary source also includes the following insignificant activities:

* * * * *

- (f) **One (1) natural gas-fired space heater, identified as emission unit 054, approved for construction in 2012, with a maximum heat input capacity of 3.5 MMBtu per hour, uncontrolled and exhausting inside the building.**

- (g) **Ten (10) Inkjet printers for the application of product codes onto product bags, approved for construction in 2012, with an anticipated maximum ink usage of less than or equal to 4.20 gallons/yr, each, and an anticipated maximum usage of makeup solvent of less than or equal to 10.90 gallons/yr, each, uncontrolled and exhausting inside the building;**

- (hf) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

* * * * *

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Bread and Muffin, and Bun Lines	
(a)	One (1) english muffin line, identified as Line 001, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of: <ul style="list-style-type: none">(1) One (1) natural gas-fired baking oven, identified as emission unit 001, with a heat input capacity of 2.85 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047030, and exhausting through common stack S30; and
* * * * *	
(b)	One (1) english muffin line, identified as Line 027, constructed in 2006, with a maximum throughput capacity of 2.10 tons of baked product per hour, consisting of: <ul style="list-style-type: none">(1) One (1), natural gas-fired baking oven, identified as emission unit 027, with a heat input capacity of 2.40 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047030, and exhausting through common stack S30.
* * * * *	
(c)	One (1) bread line, identified as Line 028, constructed in 2006, with a maximum throughput capacity of 7.20 tons of baked product per hour, consisting of: <ul style="list-style-type: none">(1) One (1) natural gas-fired baking oven, identified as emission unit 028, with a heat input capacity of 2.40 MMBtu per hour, with VOC emissions controlled by a catalytic oxidizer, identified as emission unit 047030, and exhausting through common stack S30.
* * * * *	
* * * * *	
(e)	One (1) Bun Line, identified as Line 048, approved for construction in 2012, with a maximum throughput capacity of 4.60 tons of baked product per hour, consisting of: <ul style="list-style-type: none">(1) One (1) natural gas direct-fired baking oven, identified as emission unit 048, with a heat input capacity of 8.40 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer, identified as emission unit 029, and exhausting through one (1) vent (S17); and

(2) One (1) proof box, identified as Line 048 Proof Box.

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

D.1.1 New Facilities, General Reduction Requirements [326 IAC 8-1-6] [326 IAC 2-8-4] [326 IAC 2-2]

(a) Pursuant to 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), the Permittee shall control the VOC emissions from the two (2) English muffin lines (Line 001 and Line 027) using the Best Available Control Technology (BACT), which has been determined to be the following:

(1) The VOC emissions from baking oven 001 and baking oven 027 shall be controlled by a single catalytic oxidizer (~~047030~~).

(b) IDEM has determined that the best available control technology (BACT) to control VOC emissions from the bread line (Line 028) **and the bun line (048)** shall be as follows:

(1) The VOC emissions from baking oven 028 **and baking oven 048** shall be controlled by a **single** catalytic oxidizer (029).

(3) The **combined** VOC emissions from baking oven 028, **and the bun line baking oven (048), jointly controlled by catalytic oxidizer 029 and** exhausting through vent S17, shall not exceed ~~4.302-29~~ lbs/hr.

(5) **The Permittee shall operate the bun line (Line 048) (consisting of the baking oven and proof box) in accordance with the manufacturer's design and operating specifications.**

(6) In order to ensure proper operation and to minimize potential emissions, the Permittee shall perform proof box cleaning operations for the proof box associated with **Bread** Line 028, on a weekly cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:

(7) **In order to ensure proper operation and to minimize potential emissions, the Permittee shall perform proof box cleaning operations for the proof box associated with Bun Line 048, on a weekly cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:**

Weekly Cleaning Procedure:

- (A) Knock down all dough and residue from interior framework;
- (B) Sweep floor;
- (C) Use floor scraper for excess debris;
- (D) Foam floor and scrub with brush; and
- (E) Rinse Floor.

D.1.4 Testing Requirements [326 IAC 3-6] [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with the Best Available Control Technology (BACT) requirements in Condition D.1.1 for the baking ovens, the Permittee shall perform VOC (including emission rate and overall control efficiency of the catalytic oxidizer) testing for:

- (a) the one (1) catalytic oxidizer, identified as ~~047030~~ for baking ovens 001 and 027, no later than 180 days after issuance of this permit, F-039-29392-00643. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.
- (b) the one (1) catalytic oxidizer, identified as 029, for baking ovens 028 and 048, **not later than 90 days after issuance of this permit, F-039-32174-00643. This test shall be repeated** at least once every five years from the date of **this** ~~the most recent~~ valid compliance demonstration. **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.**

D.1.5 Catalytic Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer **(047), serving the two (2) English muffin lines (Line 001 and Line 027)**, for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the 3-hour average temperature of 600°F.
- (b) **A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer (029), serving the bread line (Line 028) and the bun line (048), for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the 3-hour average temperature of 600°F.**
- (cb) The Permittee shall determine the 3-hour average temperature **for each catalytic oxidizer (029 and 047)** from the most recent valid stack test **for that unit** that demonstrates compliance with **the** limits in Condition D.1.1.
- (de) On and after the date the approved stack test results are available, the Permittee shall operate ~~each~~ the catalytic oxidizer **(029 and 047)** at or above the 3-hour average temperature as observed during the compliant stack test **for that unit**.

D.1.6 Parametric Monitoring

- (a) The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer **(029), serving the bread line (Line 028) and the bun line (048)**, is in operation.
- (b) **The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer (047), serving the two (2) English muffin lines (Line 001 and Line 027), is in operation.**

- (c**e**) The Permittee shall determine the appropriate duct pressure or fan amperage of the capture system for ~~each~~the catalytic oxidizer **(029 and 047)** from the most recent valid stack test that demonstrates compliance with the limit in Conditions D.1.1(a)(2), D.1.1(a)(3), D.1.1(b)(2) and D.1.1(b)(3).
- (d**e**) On and after the date that the stack test results are available for ~~each~~the catalytic oxidizer **(029 and 047)**, the duct pressure, or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.

D.1.6 Parametric Monitoring

- (a) The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer **(047)**, **servicing the two (2) English muffin lines (Line 001 and Line 027)**, is in operation.
- (b) **The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer (029), servicing the bread line (Line 028) and the bun line (048), is in operation.**
- (c**e**) The Permittee shall determine the appropriate duct pressure or fan amperage of the capture system for ~~each~~the catalytic oxidizer **(029 and 047)** from the most recent valid stack test that demonstrates compliance with the limit in Conditions D.1.1(a)(2), D.1.1(a)(3), D.1.1(b)(2) and D.1.1(b)(3).
- (d**e**) On and after the date that the stack test results are available for ~~each~~the catalytic oxidizer **(029 and 047)**, the duct pressure, or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.

D.1.7 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.1.5, and D.1.6, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC BACT limit established in condition D.1.1.
 - (1) The continuous temperature records (on a 3-hour average basis) for ~~each~~the catalytic oxidizer **(029 and 047)** and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
 - (2) Daily records of the duct pressure or fan amperage of the capture system for ~~each~~the catalytic oxidizer **(029 and 047)**. The Permittee shall include in its daily record when a duct pressure or fan amperage reading is not taken and the reason for the lack of a reading, (i.e. the process did not operate that day).

* * * * *

* * * * *

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

* * * * *

- (f) **One (1) dry ingredient storage and conveyance system for Bun Line 048, approved for construction in 2012, 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, with a maximum [bottlenecked] capacity of 9,200.0 pounds of dry ingredients per hour. The pneumatic conveyance system includes the following emission units:

- (1) One (1) dry ingredient storage silo, identified as 049, approved for construction in 2012, with a maximum storage capacity of 75 tons, equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.**
- (2) Two (2) scale hoppers, identified as emission units 050 and 051, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.**
- (3) Two (2) dusting flour hoppers, identified as emission units 052 and 053, approved for construction in 2012, each with a maximum storage capacity of 1,600 pounds of dry ingredients, and each equipped with one (1) filter unit for control of particulate matter emissions, and exhausting to the indoors.**

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

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

(a) Pursuant to 326 IAC 6-3-2(e)(2), the particulate emissions from each of the following dry ingredient storage and conveying emission units, **servicing the Bread Line (028) and two (2) English Muffin Lines (001 and 027)**, shall not exceed the allowable particulate emission rate as listed in the table below:

(b) Pursuant to 326 IAC 6-3-2, particulate matter (PM) emissions from each of the following dry ingredient storage and conveying emission units, **servicing the Bun Line (048)**, shall not exceed the allowable PM emission rates listed in the table below:

Emission Unit Type	Maximum Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)
Dry Ingredient Storage Silo (047)	16.68	27.0
Scale Hoppers (050, 051)	7.50	15.8 each
Dusting Flour Hoppers (052, 053)	7.50	15.8 each

D.2.2 Particulate Emission Limitations [326 IAC 2-2]

(a) In order to render 326 IAC 2-2, the particulate matter (PM) emissions from the dry ingredient storage and conveying emission units, **servicing the Bread Line (028) and two (2) English Muffin Lines (001 and 027)**, shall be limited as follows:

(b) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the annual material throughput and pound per ton (lb/ton) PM emissions from the following dry ingredient storage and conveying emission units, **servicing the Bun Line (048)**, shall not exceed the limitations listed in the table below:

Emission Unit Type	Total Dry Ingredient Throughput Limit ⁽¹⁾ (tons/year)	PM Limit (lbs/ton)
1 Dry Ingredient Storage Silo (047)	40,296	0.314
2 Scale Hoppers (050 & 051)	40,296	0.314
2 Dusting Flour Hoppers (052 & 053)	40,296	0.314
<i>(1) Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.</i>		

D.2.3 Particulate Emission Limitations [326 IAC 2-8-4]

(a) Pursuant to 326 IAC 2-8, PM10 and PM2.5 emissions from the dry ingredient storage and conveying emission units, **servicing the Bread Line (028) and two (2) English Muffin Lines (001 and 027)**, shall be limited as follows:

(b) Pursuant to 326 IAC 2-8-4 (FESOP), the annual material throughput and pound per ton (lb/ton) PM10 and PM2.5 emissions from the following dry ingredient storage and conveying emission units, **servicing the Bun Line (048)**, shall not exceed the limitations listed in the table below:

Emission Unit Type	Total Dry Ingredient Throughput Limit ⁽¹⁾ (tons/year)	PM10 Limit (lbs/ton)	PM2.5 Limit (lbs/ton)
1 Dry Ingredient Storage Silo (047)	40,296	0.110	0.110
2 Scale Hoppers (050 & 051)	40,296	0.110	0.110
2 Dusting Flour Hoppers (052 & 053)	40,296	0.110	0.110
<i>(1) Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.</i>			

D.2.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for **each of** the dry ingredient storage and conveying emission units and any **associated** control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

D.2.6 Parametric Monitoring

(a) The Permittee shall record the pressure drop across **each of** the baghouses used in conjunction with each of the dry ingredient storage and conveying emission units, at least once per day when the process is in operation. When for any one reading, the pressure drop across ~~at~~ the baghouse is outside the normal range of 1.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.2.8 Record Keeping Requirements

(a) To document the compliance status with Conditions D.2.2(a) and D.2.3(a), the Permittee shall maintain monthly records of the total amount (in tons) of dry

ingredient input to the seven (7) dry ingredient storage silos (021, 022, 030, 031, 032, 033, and 034).

- (b) To document the compliance status with Conditions D.2.2(a) and D.2.3(a), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the three (3) use bins (035, 036, and 037).
- (c) To document the compliance status with Conditions D.2.2(a) and D.2.3(a), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the nine (9) hoppers (038, 039, 040, 041, 042, 043, 044, 045 and 046).
- (d) **To document the compliance status with Conditions D.2.2(b) and D.2.3(b), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the one (1) dry ingredient storage silo (049).**
- (e) **To document the compliance status with Conditions D.2.2(b) and D.2.3(b), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the two (2) scale hoppers (050 and 051).**
- (f) **To document the compliance status with Conditions D.2.2(b) and D.2.3(b), the Permittee shall maintain monthly records of the total amount (in tons) of dry ingredient input to the two (2) dusting flour hoppers (052 and 053).**
- (gd) To document the compliance status with Condition D.2.6, the Permittee shall maintain daily records of the pressure drop across **each of** the baghouses controlling **each of** the dry ingredient storage and conveying emission units. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).
- (he) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.2.9 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.2.2(a) and D.2.2(b), shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. **The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

Intentionally left blank..... continued on next page.....

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: One (1) Dry Ingredient Storage Silo (047)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 40,296 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29392-00643
Facility: Two (2) Scale Hoppers (050 & 051)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 40,296 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

FESOP Quarterly Report

Source Name: Allen Foods, Inc.
Source Address: 53075 Frederic Drive, Elkhart, Indiana 46514
FESOP Permit No.: F039-29 392-00643
Facility: Two (2) Dusting Flour Hoppers (052 & 053)
Parameter: Total amount (in tons) of dry ingredient input
Limit: 40,296 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Additional Changes

Upon further review, IDEM, OAQ has decided to make the following changes to the permit. Deleted language appears as ~~strike through~~ text and new language appears as **bold** text:

1. During the permit review process for FESOP Renewal No.: F039-29392-00643, issued on March 30, 2012, an unintentional change occurred to the BACT language for the Bread Line (028) contained in Condition D.1.1(b)(2) of the permit. The original language, as established in NSR FESOP No.: F039-22633-00643, issued on July 13, 2006, has been restored.

In addition, the BACT Analysis for the two (2) English Muffin Lines (001 and 027) conducted during the permit review process for FESOP Renewal No.: F039-29392-00643, issued on March 30, 2012, and documented in TSD Appendix B-2, page 8 of 9, unintentionally contains incorrect language. Therefore, IDEM has decided to correct the language contained in Condition D.1.1(a)(2), that the correct meaning may be established.

Finally, the final compliance statement at the end of Condition D.1.1 has been revised for clarification, and to reflect the appropriate rule applicability.

Condition D.1.1 of the permit has been revised as follows:

D.1.1 New Facilities, General Reduction Requirements [326 IAC 8-1-6] [326 IAC 2-8-4] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), the Permittee shall control the VOC emissions from the two (2) English muffin lines (Line 001 and Line 027) using the Best Available Control Technology (BACT), which has been determined to be the following:

* * * * *

- (2) The minimum overall VOC control efficiency for the catalytic oxidizer, including capture efficiency and destruction efficiency, shall be 95%, ~~or~~ of the VOC outlet concentration ~~and~~ shall not exceed 10 ppmv.

* * * * *

- (b) IDEM has determined that the best available control technology (BACT) to control VOC emissions from the bread line (Line 028) and the bun line (048) shall be as follows:

* * * * *

- (2) The ~~minimum~~ overall VOC control efficiency for the catalytic oxidizer, ~~(including capture efficiency and destruction efficiency)~~, shall be **at least** 95%, ~~or~~ of the VOC outlet concentration shall not exceed 10 ppmv.

* * * * *

Compliance with these limits, combined with the potential **to emit** VOCs emissions from all other emission units at this source ~~will~~**shall** limit the source-wide total potential to emit of VOCs to less than 100 tons per 12 consecutive month period, ~~will satisfy 326 IAC 2-8-4 (FESOP), and shall~~**will** render 326 IAC 2-7 (Part 70 Permits) and **326 IAC 2-2 (Prevention of Significant Deterioration (PSD))** ~~326 IAC 2-3 (Emission Offset)~~ not applicable.

2. Existing permit conditions D.2.2 - Particulate Emission Limitations and D.2.3 - Particulate Emission Limitations, have been revised to correct the total dry ingredient throughput limits, resulting from the correction to the existing maximum dry ingredient throughput, as described in the "Emission Calculations" section, above.

D.2.2 Particulate Emission Limitations [326 IAC 2-2]

- (a) In order to render 326 IAC 2-2 (**Prevention of Significant Deterioration (PSD)**) **not applicable**, the particulate matter (PM) emissions from the dry ingredient

storage and conveying emission units, serving the Bread Line (028) and two (2) English Muffin Lines (001 and 027), shall be limited as follows:

Emission Unit Type	Total Dry Ingredient Throughput Limit (tons/year)*	PM Limit (lbs/ton)
7 Dry Ingredient Storage Silos (021, 022, 030, 031, 032, 033, and 034)	99,864 62,678	0.314
3 Use Bins (035, 036, and 037)	99,864 62,678	0.314
9 Hoppers (038, 039, 040, 041, 042, 043, 044, 045 and 046)	99,864 62,678	0.314

* Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

D.2.3 Particulate Emission Limitations [326 IAC 2-8-4]

(a) Pursuant to 326 IAC 2-8-4 (**FESOP**), PM10 and PM2.5 emissions from the dry ingredient storage and conveying emission units, serving the Bread Line (028) and two (2) English Muffin Lines (001 and 027), shall be limited as follows:

Emission Unit Type	Total Dry Ingredient Throughput Limit (tons/year)*	PM10 Limit (lbs/ton)	PM2.5 Limit (lbs/ton)
7 Dry Ingredient Storage Silos (021, 022, 030, 031, 032, 033, and 034)	99,864 62,678	0.110	0.110
3 Use Bins (035, 036, and 037)	99,864 62,678	0.110	0.110
9 Hoppers (038, 039, 040, 041, 042, 043, 044, 045 and 046)	99,864 62,678	0.110	0.110

* Total dry ingredient throughput limit in tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

3. Existing permit condition D.1.4 - Testing Requirements, has been revised for clarification, and to incorporate a reference to 326 IAC 3-6 since it was previously removed from section C, as follows:

D.1.4 Testing Requirements [326 IAC 3-6] [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with the Best Available Control Technology (BACT) requirements in Condition D.1.1 for the baking ovens, the Permittee shall perform VOC (including emission rate and overall control efficiency of the catalytic oxidizer) testing for:

(a) the one (1) catalytic oxidizer, identified as 047 for baking ovens 001 and 027, not later than 180 days after issuance of this permit, F-039-29392-00643, **utilizing methods approved by the Commissioner**. This test shall be repeated at least once every five (5) years from the date of ~~this~~ ~~the most recent~~ valid compliance demonstration. **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.**

* * * * *

~~Testing shall be conducted in accordance with Section C – Performance Testing.~~

* * * * *

4. IDEM, OAQ, has decided to clarify Condition D.2.6 Parametric Monitoring.

D.2.6 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across each of the baghouses used in conjunction with each of the dry ingredient storage and conveying emission units, at least once per day when the process is in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range, **the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 1.0 and 5.0 inches of water or a range unless a different upper-bound or lower-bound value for this range is determined established during the latest stack test, the Permittee shall take reasonable response steps.** Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

* * * * *

5. IDEM, OAQ, has decided to clarify Section D - Reporting Requirements. The wording has been revised to clarify that the reports submitted by the Permittee require certification, and to include reference to what rule requirements a certification needs to meet.

D.2.9 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.2.2(a) and D.2.2(b), shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. **The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

* * * * *

No other changes have been made to the permit.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on August 2, 2012.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. F039-32174-00643. The staff recommends to the Commissioner that this FESOP Significant Permit Revision be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-9327 or toll free at 1-800-451-6027 extension 3-9327.

- (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.in.gov/idem

APPENDIX A: ENTIRE SOURCE EMISSIONS SUMMARY

Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers

Uncontrolled / Unlimited Potential to Emit of the Entire Source after Issuance (tons/yr)											
Pollutant	Muffin Lines (001 & 027)			Bread Line (028) & Bun Line (048)			Dry Ingredient Storage and Conveying	InkJet Printers	Insignificant Nat. Gas Combustion	Paved Roadways (Fugitive)	Total
	Oven	Proof Box	Nat. Gas	Oven	Proof Box	Nat. Gas					
PM	-	-	0.04	-	-	0.15	660.15	-	0.26	4.10	660.61
PM10	-	-	0.17	-	-	0.62	231.26	-	1.02	0.82	233.07
PM2.5	-	-	0.17	-	-	0.62	231.26	-	1.02	0.20	233.07
SO2	-	-	0.01	-	-	0.05	-	-	0.08	-	0.14
NOx	-	-	2.30	-	-	8.09	-	-	13.43	-	23.82
VOC	133.19	13.32	0.13	318.09	31.81	0.45	-	0.48	0.74	-	498.20
CO	-	-	1.93	-	-	6.80	-	-	11.28	-	20.01
CO2e	-	-	2,776	-	-	9,772	-	-	16,213	-	28,761
Combined HAPs	4.00	0.40	0.043	0.37	0.04	0.153	-	-	0.253	-	5.25
Single HAP	4.00 (acetaldehyde)	0.40 (acetaldehyde)	0.041 (hexane)	0.37 (acetaldehyde)	0.04 (acetaldehyde)	0.146 (hexane)	-	-	0.242 (hexane)	-	4.80 (acetaldehyde)

Note:
Fugitive PM, PM10, PM2.5, and VOC are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability

Controlled / Unlimited Potential to Emit of the Entire Source after Issuance (tons/yr)											
Pollutant	Muffin Lines (001 & 027)			Bread Line (028) & Bun Line (048)			Dry Ingredient Storage and Conveying	InkJet Printers	Insignificant Nat. Gas Combustion	Paved Roadways (Fugitive)	Total
	Oven	Proof Box	Nat. Gas	Oven	Proof Box	Nat. Gas					
PM	-	-	0.04	-	-	0.15	0.66	-	0.26	4.10	1.11
PM10	-	-	0.17	-	-	0.62	0.23	-	1.02	0.82	2.04
PM2.5	-	-	0.17	-	-	0.62	0.23	-	1.02	0.20	2.04
SO2	-	-	0.01	-	-	0.05	-	-	0.08	-	0.14
NOx	-	-	2.30	-	-	8.09	-	-	13.43	-	23.82
VOC	6.66	13.32	0.13	15.90	31.81	0.45	-	0.48	0.74	-	49.51
CO	-	-	1.93	-	-	6.80	-	-	11.28	-	20.01
CO2e	-	-	2,776	-	-	9,772	-	-	16,213	-	28,761
Combined HAPs	0.20	0.40	0.043	0.02	0.04	0.153	-	-	0.253	-	1.10
Single HAP	0.20 (acetaldehyde)	0.40 (acetaldehyde)	0.041 (hexane)	0.02 (acetaldehyde)	0.04 (acetaldehyde)	0.146 (hexane)	-	-	0.242 (hexane)	-	0.66 (acetaldehyde)

Note:
Fugitive PM, PM10, PM2.5, and VOC are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability

Limited Potential to Emit of the Entire Source after Issuance (tons/yr)											
Pollutant	Muffin Lines (001 & 027) ^A			Bread Line (028) & Bun Line (048) ^B			Dry Ingredient Storage and Conveying	InkJet Printers	Insignificant Nat. Gas Combustion	Paved Roadways (Fugitive)	Total
	Oven	Proof Box	Nat. Gas	Oven	Proof Box	Nat. Gas					
PM	-	-	0.04	-	-	0.15	66.02	-	0.26	4.10	66.47
PM10	-	-	0.17	-	-	0.62	23.13	-	1.02	0.82	24.94
PM2.5	-	-	0.17	-	-	0.62	23.13	-	1.02	0.20	24.94
SO2	-	-	0.01	-	-	0.05	-	-	0.08	-	0.14
NOx	-	-	2.30	-	-	8.09	-	-	13.43	-	23.82
VOC	6.66	13.32	0.13	18.84	31.81	0.45	-	0.48	0.74	-	72.42
CO	-	-	1.93	-	-	6.80	-	-	11.28	-	20.01
CO2e	-	-	2,776	-	-	9,772	-	-	16,213	-	28,761
Combined HAPs	0.20	0.40	0.043	0.02	0.04	0.153	-	-	0.253	-	1.10
Single HAP	0.20 (acetaldehyde)	0.40 (acetaldehyde)	0.041 (hexane)	0.02 (acetaldehyde)	0.04 (acetaldehyde)	0.146 (hexane)	-	-	0.242 (hexane)	-	0.66 (acetaldehyde)

Note:
Fugitive PM, PM10, PM2.5, and VOC are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability
A- Combined VOC emissions from the Muffin Line (001) and Muffin Line (027) Ovens, exhausting through the common stack 047 shall be limited to 1.52 bs/r
B- Combined VOC emissions from the Bread Line Oven (028) and the Bun Line (048), exhausting through vent S17 shall not exceed: 2.29 + 2.01 = 4.30 lbs/hr. See pages 5 and 6 of 31 of it

**APPENDIX A: EMISSIONS SUMMARY OF THE NEW UNITS
NEW Bun Line (048)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

PTE of Proposed Revision (tons/year)							
Pollutant	Bun Line (048)			Dry Ingredient Storage and Conveying	InkJet Printers	Insignificant Nat. Gas Combustion	Total
	Oven	Proof Box	Nat. Gas				
PM	-	-	0.07	189.79	-	0.03	189.89
PM10	-	-	0.28	66.49	-	0.12	66.88
PM2.5	-	-	0.28	66.49	-	0.12	66.88
SO2	-	-	0.02	-	-	0.01	0.03
NOx	-	-	3.68	-	-	1.53	5.21
VOC	176.19	17.62	0.20	-	0.48	0.08	194.58
CO	-	-	3.09	-	-	1.29	4.38
CO2e	-	-	4,442	-	-	1,851	6,293
Combined HAPs	0.21	0.02	0.069	-	-	0.029	0.33
Single HAP	0.21 (acetaldehyde)	0.02 (acetaldehyde)	0.066 (hexane)	-	-	0.028 (hexane)	0.23 (acetaldehyde)

Note:

Fugitive PM, PM10, PM2.5, and VOC are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

**Appendix A: Emissions Calculations
Natural Gas-Fired Oven Process Emissions
from NEW Bun Line (048)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

VOC and HAP Emissions from Bread Fermentation:

Maximum Production Rate: 4.60 tons/hr	
According to AP-42, Chapter 9.9.6 - Bread Baking, the VOC emission factor from the bread baking process can be estimated with the following equation:	
$E.F. = 0.95 Y_i + 0.195 t_i - 0.51 S - 0.86 t_s + 1.90$	
Where	E.F. = pounds VOC per ton of baked bread
	Y_i = initial baker's percent of yeast
	t_i = total yeast action time in hours
	S = final (spike) baker's percent of yeast
	t_s = spiking time in hours
Maximum VOC emission factor 4.4995 lbs/ton based on a stack test performed August 2007. Therefore, the potential uncontrolled VOC emissions from bread baking =	
$0.95 (7.0\%) + 0.195 (1 \text{ hour}) - 0.51 (0.0\%) - 0.86 (0 \text{ h})$	= 8.75 lbs VOC/ton product 40.23 lbs VOC/hour (before control) 176.19 tons VOC/year (before control)
Maximum Acetaldehyde emission factor of 0.117% by weight of total VOC based on a stack test performed August 2007 Therefore, the potential uncontrolled HAP (acetaldehyde) emissions from bread baking =	
$176.19 \times 0.117\%$	= 0.21 tons/yr
BACT required catalytic oxidizer control efficiency = 95% Therefore, the potential controlled VOC emissions from bread baking =	
$176.19 \text{ tons/yr} * (1 - \text{control efficiency})$	= 8.81 tons/yr = 2.01 lbs/hr
Potential controlled Acetaldehyde emissions from bread baking =	
$0.21 \text{ tons/yr} * (1 - \text{control efficiency})$	= 0.010 tons/yr

VOC Emissions from Bread Line Proof Box:

Emission Unit ID	Emission Factor (% of Oven Emissions)	Uncontrolled Potential Oven Emissions		Uncontrolled Potential Proof Box Emissions	
		VOC (tons/yr)	Acetaldehyde (tons/yr)	VOC (tons/yr)	Acetaldehyde (tons/yr)
Bread Line (028) Proof Box	10.00%	176.19	0.21	17.62	0.02

Notes:

There is no spike time or spike yeast in the bun formulations since they will be manufactured as a straight dough process not a sponge/dough process. There is no sponge or brew in this dough-mixing process. The yeast and remaining ingredients are added at once and the fermentation time (including proofing) is 1 hour. There are two general product types manufactured - hotdog buns and hamburger buns. The hams will use 7.006 baker's percent of yeast in the dough and the hots will use 6.386 baker's percent of yeast in the dough. PTE calculations were based on all hams though there will be a mix of both products made. As with all commercial bakeries, the product formulations can vary based on many factors to achieve good product quality and product variations.

The assumption that emissions from the proof box are 10% of those from the bread baking oven was derived from the "Alternative Control Technology for Bakery Oven Emissions" released by the U.S. EPA in 1992. IDEM, OAQ has agreed to accept this method of calculating VOC potential emissions from the proof box.

Methodology:

Uncontrolled Potential Proof Box Emissions (tons/yr) = Uncontrolled Potential Oven Emissions (tons/yr) * Emission Factor (% of Oven Emissions)
Uncontrolled Potential Acetaldehyde Emissions (ton/year) = Uncontrolled Potential VOC Emissions (ton/yr) * 0.117%

**Appendix A: Emissions Calculations
Natural Gas Combustion Emissions
from the bun Line**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

Heat Input Capacity Potential Throughput
MMBtu/hr MMCF/yr

8.40 73.58

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.07	0.28	0.28	0.02	3.68	0.20	3.09

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

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

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

Methodology:

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

Hazardous Air Pollutant Emissions	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	7.726E-05	4.415E-05	2.759E-03	6.623E-02	1.251E-04

Hazardous Air Pollutant Emissions	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.840E-05	4.047E-05	5.151E-05	1.398E-05	7.726E-05

Combined HAPs: 0.07

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

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

Greenhouse Gas Emissions	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	4,415	0.08	0.08
Summed Potential Emissions in tons/yr	4,415.21		
CO2e Total in tons/yr	4,441.91		

Methodology:

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

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.

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

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

CO2e (tons/yr) = CO2 PTE ton/yr x CO2 GWP (1) + CH4 PTE ton/yr x CH4 GWP (21) + N2O PTE ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5) Emissions
from the NEW Bun Line Dry Ingredient Storage and Conveying**

Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers

Emission Factor (lbs/ton)*	
PM	PM10
3.14	1.10

Filter Unit Control Efficiency	
PM	PM10
99.9%	99.9%

Potential to Emit (PTE) of Particulate (PM and PM10)

Emission Unit	Maximum Ingredient Throughput (lbs/hr)**	Combined Maximum Ingredient Throughput (tons/hr)**	Uncontrolled PTE of PM (lbs/hour)	Uncontrolled PTE of PM10 (lbs/hour)	Uncontrolled PTE of PM (tons/yr)	Uncontrolled PTE of PM10/PM2.5* (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10/PM2.5* (tons/yr)	Limited Throughput (tons/yr)	Limited PTE of PM (lbs/ton)***	Limited PTE of PM10/PM2.5* (lbs/ton)***	Limited PTE of PM (tons/yr)	Limited PTE of PM10/PM2.5* (tons/yr)
1 Dry Ingredient Storage Silo (049)	9,200.0	4.60	14.44	5.06	63.26	22.16	0.06	2.2E-02	40,296	0.314	0.11	6.33	2.22
2 Scale Hoppers (050 & 051)	9,200.0	4.60	14.44	5.06	63.26	22.16	0.06	0.02	40,296	0.314	0.11	6.33	2.22
2 Dusting Flour Hoppers (052 & 053)	9,200.0	4.60	14.44	5.06	63.26	22.16	0.06	0.02	40,296	0.314	0.11	6.33	2.22
Totals					189.79	66.49	0.190	0.066				18.98	6.65

Methodology:

* There are no emission factors available for the Storage and Conveying of Dry Ingredients. Therefore, to form a conservative estimate, Emission Factors from AP-42 Table 11.12-2 for uncontrolled truck unloading of cement supplement to elevated storage silo (pneumatic). It is assumed that PM2.5 emissions are equal to PM10 emissions.

**The maximum ingredient throughput is based on the maximum batch production rate (operational bottleneck) of the new bun line, which is 1,758 buns/min (4.6 tons of buns/hr).

*** Limited PTE (lbs/ton) based on Emission Factors from AP-42 Table 11.12-2 for uncontrolled truck unloading of cement supplement to elevated storage silo (pneumatic).

Uncontrolled emission Factors have been converted to emission limits, as follows: [Uncontrolled Emission Factor (lb pollutant/ton) / (1 - control efficiency/100)], where the control efficiency is assumed 90%.

Maximum Hourly Throughput (tons/hr) = [Maximum Hourly Throughput (lbs/hr)] / [2000 lbs/ton]

Uncontrolled PTE of PM or PM10 (lbs/hour) = [Maximum Hourly Throughput (tons/hr)] * [Emission Factor (lbs/ton)]

Uncontrolled PTE of PM or PM10 (tons/year) = [Uncontrolled PTE of PM or PM10 (lbs/hour)] * [8760 hours/year] / [2000 lbs/ton]

Controlled PTE of PM or PM10 (tons/year) = [Uncontrolled PTE of PM or PM10 (tons/year)] * [1 - Control Efficiency]

Limited Throughput (tons/yr) = [Maximum Ingredient Throughput (lbs/hr) * 8760 hrs/yr * 1 ton/2000 lbs]

Limited PTE of PM/PM10/PM2.5 (lbs/ton) = FESOP Limitations

Limited PTE of PM/PM10/PM2.5 (tons/yr) = [Limited Throughput (tons/yr) * Limited PTE of PM/PM10/PM2.5 (lbs/ton) * 1 ton/2000 lbs]

Compliance with 326 IAC 6-3-2

Emission Unit Type	Maximum Batch Filling Rate (lbs/min)*	Maximum Batch Filling Rate (lbs/hr)	Maximum Batch Filling Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)
Flour Storage Silo (049)	556.0	33,360.0	16.68	27.0
2 Scale Hoppers (050 & 051)	250.0	15,000.0	7.50	15.8
2 Dusting Flour Hoppers (052 & 053)	250.0	15,000.0	7.50	15.8

*each
each*

Methodology:

*Each dry ingredient storage silo has a maximum batch filling rate of 556 lbs/minute, based on truck unloading of 50,000 lb of flour over 90 minutes.

*Each scale hopper has a maximum batch filling rate of 250 lbs/minute.

*Each dusting flour hopper has a maximum batch filling rate of 250 lbs/minute.

The use of filter units will ensure compliance with each of the limits above.

Appendix A: Emission Calculations
Volatile Organic Compound (VOC) & Hazardous Air Pollutant (HAP) Emissions
From the Four (4) NEW Inkjet Printers

Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers

Inkjet Printers Solvent/Ink Usage (VOC)

Material	Density (lb/gal)	Number of units (# printers)	Annual Usage per unit (gal/yr/printer)	VOC Content (lbs/gal)	Potential VOC Emissions (per unit)			Total Potential VOC Emissions (for all units)		
					(lb/hr/printer)	(lb/day/printer)	(tons/yr/printer)	(lb/hr)	(lb/day)	(tons/yr)
5550 ink	7.32	10.0	4.20	5.49	2.63E-03	6.32E-02	0.01	0.03	0.63	0.12
5551 additive	6.74	10.0	10.90	6.75	8.40E-03	0.20	0.04	0.08	2.02	0.37
					0.01	0.26	0.05	0.11	2.65	0.48

Notes:

Annual usage is per printer
Currently there are six (6) printers in use. Four (4) additional identical units are proposed to be installed.
VOC and HAP Contents obtained from product MSDS sheets.
The 5550 ink and 5551 additive contain no listed Hazardous Air Pollutants (HAPs).

Methodology:

Potential VOC Emissions (lb/hr) = Annual Usage (gal) * VOC Content (lbs/gal) * 1 yr / 8760 hrs
Potential VOC Emissions (lb/day) = Potential VOC (lb/hr) * (24 hrs/day)
Potential VOC Emissions (tons/yr) = Annual Usage (gal) * VOC Content (lbs/gal) * 1 ton / 2,000 lbs
Total Potential VOC Emissions (lb/hr) = Number of Units (# printers) * Annual Usage (gal) * VOC Content (lbs/gal) * 1 yr / 8760 hrs
Total Potential VOC Emissions (lb/day) = Number of Units (# printers) * Potential VOC (lb/hr) * (24 hrs/day)
Total Potential VOC Emissions (tons/yr) = Number of Units (# printers) * Annual Usage (gal) * VOC Content (lbs/gal) * 1 ton / 2,000 lbs

**Appendix A: Emissions Calculations
Combustion Emissions from the
NEW Natural Gas-Fired Air Make-Up Unit (054)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.50	30.66

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.03	0.12	0.12	0.01	1.53	0.08	1.29

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology:

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutant Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.219E-05	1.840E-05	1.150E-03	2.759E-02	5.212E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	7.665E-06	1.686E-05	2.146E-05	5.825E-06	3.219E-05

Combined HAPs: 0.03

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

Greenhouse Gas Emissions

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	1,840	0.04	0.03
Summed Potential Emissions in tons/yr	1,839.67		
CO2e Total in tons/yr	1,850.80		

Methodology:

The N2O Emission Factor for uncontrolled is 2.2.
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.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Potential To Emit of the Entire Source Prior to Revision (tons/year)

Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers

Uncontrolled / Unlimited Emissions (Tons/Yr)										
Pollutant	Muffin Lines (001 & 027)			Bread Line (028)			Ingredient Storage and Conveying	Insignificant Nat. Gas Combustion	Paved Roadways (Fugitive)	Total
	Oven	Proof Box	Nat. Gas	Oven	Proof Box	Nat. Gas				
PM	-	-	0.04	-	-	0.08	470.36	0.23	4.10	470.71
PM10	-	-	0.17	-	-	0.34	164.78	0.90	0.82	166.19
PM2.5	-	-	0.17	-	-	0.34	164.78	0.90	0.20	166.19
SO2	-	-	0.01	-	-	0.03	-	0.07	-	0.11
NOx	-	-	2.30	-	-	4.42	-	11.90	-	18.61
VOC	133.19	13.32	0.13	141.90	14.19	0.24	-	0.65	-	303.62
CO	-	-	1.93	-	-	3.71	-	9.99	-	15.63
CO2e	-	-	2,776	-	-	5,330	-	14,362	-	22,469
Combined HAPs	4.00	0.40	0.043	0.17	0.02	0.083	-	0.22	-	4.93
Single HAP	4.00 (acetaldehyde)	0.40 (acetaldehyde)	0.041 (hexane)	0.17 (acetaldehyde)	0.02 (acetaldehyde)	0.079 (hexane)	-	0.21 (hexane)	-	4.58

Note:

Fugitive PM, PM10, PM2.5, and VOC are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Controlled / Unlimited Emissions (Tons/Yr)										
Pollutant	Muffin Lines (001 & 027)			Bread Line (028)			Ingredient Storage and Conveying	Insignificant Nat. Gas Combustion	Paved Roadways (Fugitive)	Total
	Oven	Proof Box	Nat. Gas	Oven	Proof Box	Nat. Gas				
PM	-	-	0.04	-	-	0.08	0.47	0.23	4.10	0.82
PM10	-	-	0.17	-	-	0.34	0.16	0.90	0.82	1.58
PM2.5	-	-	0.17	-	-	0.34	0.16	0.90	0.20	1.58
SO2	-	-	0.01	-	-	0.03	-	0.07	-	0.11
NOx	-	-	2.30	-	-	4.42	-	11.90	-	18.61
VOC	6.66	13.32	0.13	7.09	14.19	0.24	-	0.65	-	42.29
CO	-	-	1.93	-	-	3.71	-	9.99	-	15.63
CO2e	-	-	2,776	-	-	5,330	-	14,362	-	22,469
Combined HAPs	0.20	0.40	0.043	0.01	0.02	0.083	-	0.22	-	0.98
Single HAP	0.20 (acetaldehyde)	0.40 (acetaldehyde)	0.041 (hexane)	0.01 (acetaldehyde)	0.02 (acetaldehyde)	0.079 (hexane)	-	0.21 (hexane)	-	0.62

Note:

Fugitive PM, PM10, PM2.5, and VOC are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Limited Emissions (Tons/Yr)										
Pollutant	Muffin Line (001) ^A			Bread Line (028) ^B			Ingredient Storage and Conveying	Insignificant Nat. Gas Combustion	Paved Roadways (Fugitive)	Total
	Oven	Proof Box	Nat. Gas	Oven	Proof Box	Nat. Gas				
PM	-	-	0.04	-	-	0.08	47.04	0.23	4.10	47.39
PM10	-	-	0.17	-	-	0.34	16.48	0.90	0.82	17.89
PM2.5	-	-	0.17	-	-	0.34	16.48	0.90	0.20	17.89
SO2	-	-	0.01	-	-	0.03	-	0.07	-	0.11
NOx	-	-	2.30	-	-	4.42	-	11.90	-	18.61
VOC	6.66	13.32	0.13	10.03	14.19	0.24	-	0.65	-	45.22
CO	-	-	1.93	-	-	3.71	-	9.99	-	15.63
CO2e	-	-	2,776	-	-	5,330	-	14,362	-	22,469
Combined HAPs	0.20	0.40	0.043	0.01	0.02	0.083	-	0.22	-	0.98
Single HAP	0.20 (acetaldehyde)	0.40 (acetaldehyde)	0.041 (hexane)	0.01 (acetaldehyde)	0.02 (acetaldehyde)	0.079 (hexane)	-	0.21 (hexane)	-	0.62

Note:

Fugitive PM, PM10, PM2.5, and VOC are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

A- Combined VOC emissions from the Muffin Line (001) and Muffin Line (027) Ovens, exhausting through the common stack CAT-OX shall be limited to 1.52 bs/hr.

B- VOC emissions from the Bread Line Oven (028), exhausting through vent S17 shall not exceed 2.29 lbs/ton

**Appendix A: Emissions Calculations
Oven Process Emissions
from Muffin Line (001)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

VOC and HAP Emissions from Bread Fermentation:

Maximum Production Rate:	2.10 tons/hr
According to AP-42, Chapter 9.9.6 - Bread Baking, the VOC emission factor from the bread baking process can be estimated with the following equation:	
$E.F. = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$	
Where	<p>E.F. = pounds VOC per ton of baked bread Y_i = initial baker's percent of yeast t_i = total yeast action time in hours S = final (spike) baker's percent of yeast t_s = spiking time in hours</p>
Maximum VOC emission factor 7.24 lbs/ton based on a stack test performed May 2007.	
Therefore, the potential uncontrolled VOC emissions from bread baking =	
$2.10 \times 7.24 \text{ lbs/ton} \times 8760 \text{ hrs/yr} \times 1 \text{ tons}/2000 \text{ lbs} =$	
66.59 tons/yr	
VOCs emitted during fermentation (leavening) 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	
$66.59 \times 3\% =$	
2.00 tons/yr	
BACT required catalytic oxidizer control efficiency = 95%	
Therefore, the potential controlled VOC emissions from bread baking =	
$66.59 \text{ tons/yr} \times (1 - \text{control efficiency}) =$	
3.33 tons/yr	
Potential controlled Acetaldehyde emissions from bread baking =	
$2.00 \text{ tons/yr} \times (1 - \text{control efficiency}) =$	
0.10 tons/yr	

VOC Emissions from Bread Line Proof Box:

Emission Unit ID	Emission Factor (% of Oven Emissions)	Uncontrolled Potential Oven Emissions		Uncontrolled Potential Proof Box Emissions	
		VOC (tons/yr)	Acetaldehyde (tons/yr)	VOC (tons/yr)	Acetaldehyde (tons/yr)
Muffin Line (001) Proof Box	10.00%	66.59	2.00	6.66	0.20

Note:

The assumption that emissions from the proof box are 10% of those from the bread baking oven was derived from the "Alternative Control Technology for Bakery Oven Emissions" released by the U.S. EPA in 1992. IDEM, OAHQ has agreed to accept this method of calculating VOC potential emissions from the proof box.

Methodology:

Uncontrolled Potential Proof Box Emissions (tons/yr) = Uncontrolled Potential Oven Emissions (tons/yr) * Emission Factor (% of Oven Emissions)

Uncontrolled Potential Acetaldehyde Emissions (ton/year) = Uncontrolled Potential VOC Emissions (ton/yr) * 3%

**Appendix A: Emissions Calculations
Natural Gas Combustion Emissions
from Muffin Line (001)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

Heat Input Capacity
MMBtu/hr

2.85

Potential Throughput
MMCF/yr

24.97

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Potential Emission in tons/yr	0.02	0.09	0.09	0.01	1.25 **see below	0.07	1.05

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

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

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

Methodology:

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

Hazardous Air Pollutant Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Potential Emission in tons/yr	2.621E-05	1.498E-05	9.362E-04	2.247E-02	4.244E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Potential Emission in tons/yr	6.242E-06	1.373E-05	1.748E-05	4.744E-06	2.621E-05

Combined HAPs: 0.02

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

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

Greenhouse Gas Emissions

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
Potential Emission in tons/yr	1,498	0.03	0.03
Summed Potential Emissions in tons/yr	1,498		
CO2e Total in tons/yr	1,507		

Methodology:

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

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.

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

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

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations
Oven Process Emissions
from Muffin Line (027)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

VOC and HAP Emissions from Bread Fermentation:

<p>Maximum Production Rate: 2.10 tons/hr</p> <p>According to AP-42, Chapter 9.9.6 - Bread Baking, the VOC emission factor from the bread baking process can be estimated with the following equation:</p> $E.F. = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$ <p>Where</p> <p>E.F. = pounds VOC per ton of baked bread Y_i = initial baker's percent of yeast t_i = total yeast action time in hours S = final (spike) baker's percent of yeast t_s = spiking time in hours</p> <p>Maximum VOC emission factor 7.24 lbs/ton based on a stack test performed May 2007 on Muffin Line 001. Therefore, the potential uncontrolled VOC emissions from bread baking =</p> $2.10 \times 7.24 \text{ lbs/ton} \times 8760 \text{ hrs/yr} \times 1 \text{ tons/2000 lbs} = \mathbf{66.59 \text{ tons/yr}}$ <p>VOCs emitted during fermentation (leavening) 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</p> $66.59 \times 3\% = \mathbf{2.00 \text{ tons/yr}}$
<p>BACT required catalytic oxidizer control efficiency = 95% Therefore, the potential controlled VOC emissions from bread baking =</p> $66.59 \text{ tons/yr} \times (1 - \text{control efficiency}) = \mathbf{3.33 \text{ tons/yr}}$ <p>Potential controlled Acetaldehyde emissions from bread baking =</p> $2.00 \text{ tons/yr} \times (1 - \text{control efficiency}) = \mathbf{0.10 \text{ tons/yr}}$

VOC Emissions from Bread Line Proof Box:

Emission Unit ID	Emission Factor (% of Oven Emissions)	Uncontrolled Potential Oven Emissions		Uncontrolled Potential Proof Box Emissions	
		VOC (tons/yr)	Acetaldehyde (tons/yr)	VOC (tons/yr)	Acetaldehyde (tons/yr)
Muffin Line (027) Proof Box	10.00%	66.59	2.00	6.66	0.20

Note:

The assumption that emissions from the proof box are 10% of those from the bread baking oven was derived from the "Alternative Control Technology for Bakery Oven Emissions" released by the U.S. EPA in 1992. IDEM, OAQ has agreed to accept this method of calculating VOC potential emissions from the proof box.

Methodology:

Uncontrolled Potential Proof Box Emissions (tons/yr) = Uncontrolled Potential Oven Emissions (tons/yr) * Emission Factor (% of Oven Emissions)
Uncontrolled Potential Acetaldehyde Emissions (ton/year) = Uncontrolled Potential VOC Emissions (ton/yr) * 3%

**Appendix A: Emissions Calculations
Natural Gas Combustion Emissions
from Muffin Line (027)**

Company Name: Allen Foods, Inc.
Address City IN Zip: 53075 Frederic Drive, Elkhart, IN 46514
Permit Number: F039-29392-00643
Reviewer: Christine Filutze / JRK
Date: Reviewer:

Heat Input Capacity
MMBtu/hr

2.40

Potential Throughput
MMCF/yr

21.02

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.02	0.08	0.08	0.01	1.05	0.06	0.88

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

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

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

Methodology:

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

Hazardous Air Pollutant Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.208E-05	1.261E-05	7.884E-04	1.892E-02	3.574E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.256E-06	1.156E-05	1.472E-05	3.995E-06	2.208E-05

Combined HAPs: 0.02

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

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

Greenhouse Gas Emissions

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	1,261	0.02	0.02
Summed Potential Emissions in tons/yr	1,261.49		
CO2e Total in tons/yr	1,269.12		

Methodology:

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

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.

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

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

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations
Oven Process Emissions
from Bread Line (028)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

VOC and HAP Emissions from Bread Fermentation:

<p>Maximum Production Rate: 7.20 tons/hr</p> <p>According to AP-42, Chapter 9.9.6 - Bread Baking, the VOC emission factor from the bread baking process can be estimated with the following equation:</p> $E.F. = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$ <p>Where</p> <p>E.F. = pounds VOC per ton of baked bread Y_i = initial baker's percent of yeast t_i = total yeast action time in hours S = final (spike) baker's percent of yeast t_s = spiking time in hours</p> <p>Maximum VOC emission factor 4.4995 lbs/ton based on a stack test performed August 2007. Therefore, the potential uncontrolled VOC emissions from bread baking =</p> $7.20 \times 4.4995 \text{ lbs/ton} \times 8760 \text{ hrs/yr} \times 1 \text{ tons}/2000 \text{ lbs} = \mathbf{141.90 \text{ tons/yr}}$ <p>Maximum Acetaldehyde emission factor of 0.117% by weight of total VOC based on a stack test performed August 2007. Therefore, the potential uncontrolled HAP (acetaldehyde) emissions from bread baking =</p> $141.90 \times 0.117\% = \mathbf{0.17 \text{ tons/yr}}$
<p>BACT required catalytic oxidizer control efficiency = 95% Therefore, the potential controlled VOC emissions from bread baking =</p> $141.90 \text{ tons/yr} \times (1 - \text{control efficiency}) = \mathbf{7.09 \text{ tons/yr}}$ <p>Potential controlled Acetaldehyde emissions from bread baking =</p> $0.17 \text{ tons/yr} \times (1 - \text{control efficiency}) = \mathbf{0.01 \text{ tons/yr}}$
<p>VOC Emission Limit:</p> $\begin{aligned} \text{VOC Limit (lbs/hr)} &= \text{PTE (tons/yr)} \times (1 - \text{control efficiency}) \times (2000 \text{ lbs/ton}) \times (1 \text{ yr}/8760 \text{ hrs}) \\ &= (200.27 \text{ tons/yr}) \times (1 - 0.95) \times (2000 \text{ lbs/ton}) \times (1 \text{ yr}/8760 \text{ hrs}) = \mathbf{2.29 \text{ lbs/hr}} \end{aligned}$ $\begin{aligned} \text{VOC Limit (tons/yr)} &= \text{VOC Limit (lbs/hr)} \times (8760 \text{ hrs}/1 \text{ yr}) \times (1 \text{ ton}/2000 \text{ lbs}) \\ &= (2.29 \text{ lbs/hr}) \times (8760 \text{ hrs}/1 \text{ yr}) \times (1 \text{ ton}/2000 \text{ lbs}) = \mathbf{10.03 \text{ tons/yr}} \end{aligned}$ <p>Note: The VOC Emissions Limit (lbs/hr) for the Bread Line (028) is from the NSR FESOP (#F039-22633-00643), issued 07/13/2006. The limit is based on the unlimited PTE (tons/yr) as historically determined from the equation in AP 42, Section 9.9.6 - Bread Baking.</p>

VOC Emissions from Bread Line Proof Box:

Emission Unit ID	Emission Factor (% of Oven Emissions)	Uncontrolled Potential Oven		Uncontrolled Potential Proof Box	
		VOC (tons/yr)	Acetaldehyde (tons/yr)	VOC (tons/yr)	Acetaldehyde (tons/yr)
Bread Line (028) Proof Box	10.00%	141.90	0.17	14.19	0.02

Note:

The assumption that emissions from the proof box are 10% of those from the bread baking oven was derived from the "Alternative Control Technology for Bakery Oven Emissions" released by the U.S. EPA in 1992. IDEM, OAQ has agreed to accept this method of calculating VOC potential emissions from the proof box.

Methodology:

Uncontrolled Potential Proof Box Emissions (tons/yr) = Uncontrolled Potential Oven Emissions (tons/yr) * Emission Factor (% of Oven Emissions)
 Uncontrolled Potential Acetaldehyde Emissions (ton/year) = Uncontrolled Potential VOC Emissions (ton/yr) * 0.117%

**Appendix A: Emissions Calculations
Natural Gas Combustion Emissions
from Bread Line (028)**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

Heat Input Capacity
MMBtu/hr

10.08

Potential Throughput
MMCF/yr

88.30

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.08	0.34	0.34	0.03	4.42	0.24	3.71

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

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

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

Methodology:

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

Hazardous Air Pollutant Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.272E-05	5.298E-05	3.311E-03	7.947E-02	1.501E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.208E-05	4.857E-05	6.181E-05	1.678E-05	9.272E-05

Combined HAPs: 0.08

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

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

Greenhouse Gas Emissions

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	5,298	0.10	0.10
Summed Potential Emissions in tons/yr	5,298.25		
CO2e Total in tons/yr	5,330.29		

Methodology:

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

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.

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

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

CO2e (tons/yr) = CO2 PTE ton/yr x CO2 GWP (1) + CH4 PTE ton/yr x CH4 GWP (21) + N2O PTE ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Particulate (PMPM10/PM2.5) Emissions from
Dry Ingredient Storage and Conveying

Company Name: Allen Foods Inc.
 Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
 Permit Number: F039-29392-00643
 Revision No.: F039-32174-00643
 Reviewer: Hannah L. Desrosiers

Emission Factor (lbs/ton)*	
PM	PM10
3.14	1.10

Filter Unit Control Efficiency	
PM	PM10
99.9%	99.9%

Potential to Emit (PTE) of Particulate (PM and PM10)

Emission Unit	Maximum Ingredient Throughput (lbs/hr)**	Maximum Ingredient Throughput (tons/hr)**	Uncontrolled PTE of PM (lbs/hour)	Uncontrolled PTE of PM10 (lbs/hour)	Uncontrolled PTE of PM (tons/yr)	Uncontrolled PTE of PM10/PM2.5* (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10/PM2.5* (tons/yr)***	Limited Throughput (tons/yr)	Limited PTE of PM (lbs/ton)***	Limited PTE of PM10/PM2.5* (lbs/ton)***	Limited PTE of PM (tons/yr)	Limited PTE of PM10/PM2.5* (tons/yr)
7 Dry Ingredient Storage Silos (021, 022, 030, 031, 032, 033, and 034)	22,800.0	11.40	35.80	12.54	156.79	54.93	1.6E-01	5.5E-02	99,864.0	0.314	0.110	15.68	5.49
2 Dry Ingredient Use Bins (035 and 036) and 1 Dusting Flour Use Bin (037)	22,800.0	11.40	35.80	12.54	156.79	54.93	1.6E-01	5.5E-02	99,864.0	0.314	0.110	15.68	5.49
7 Scale Hoppers (038, 039, 040, 041, 042, 043, 044) and 2 Dusting Flour Hoppers (045 and 046)	22,800.0	11.40	35.80	12.54	156.79	54.93	1.6E-01	5.5E-02	99,864.0	0.314	0.110	15.68	5.49
Totals					470.36	164.78	0.470	0.165				47.04	16.48

Methodology

* There are no emission factors available for the Storage and Conveying of Dry Ingredients. Therefore, to form a conservative estimate, Emission Factors from AP-42 Table 11.12-2 for uncontrolled truck unloading of cement supplement to elevated storage silo (pneumatic). It is assumed that PM2.5 emissions are equal to PM10 emissions.

** Maximum ingredient throughput of 22,800.0 lbs/hr is based on the maximum batch production rate of bread using the 1 bread line and the 2 muffin lines (operational bottleneck). The maximum batch production rate of the 1 bread line is 160 loaves/min (7.2 tons of bread/hr) and the maximum batch production rate of each muffin line is 504 pieces/min (2.1 tons of muffins/hr).

*** Limited PTE (lbs/ton) based on Emission Factors from AP-42 Table 11.12-2 for uncontrolled truck unloading of cement supplement to elevated storage silo (pneumatic). Uncontrolled emission Factors have been converted to emission limits, as follows: [Uncontrolled Emission Factor (lb pollutant/ton) / (1 - control efficiency/100)], where the control efficiency is assumed 90%.

Maximum Hourly Throughput (tons/hr) = [Maximum Hourly Throughput (lbs/hr)] / [2000 lbs/ton]

Uncontrolled PTE of PM or PM10 (lbs/hour) = [Maximum Hourly Throughput (tons/hr)] * [Emission Factor (lbs/ton)]

Uncontrolled PTE of PM or PM10 (tons/year) = [Uncontrolled PTE of PM or PM10 (lbs/hour)] * [8760 hours/year] / [2000 lbs/ton]

Controlled PTE of PM or PM10 (tons/year) = [Uncontrolled PTE of PM or PM10 (tons/year)] * [1 - Control Efficiency]

Compliance with 326 IAC 6-3-2

Emission Unit Type	Maximum Batch Filling Rate (lbs/min)*	Maximum Batch Filling Rate (lbs/hr)	Maximum Batch Filling Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)
Dry Ingredient Storage Silo (each of 7 silos)	556.0	33,360.0	16.68	27.0
Dry Ingredient Use Bin (each of 2 use bins)	325.0	19,500.0	9.75	18.9
Dusting Flour Use Bin	325.0	19,500.0	9.75	18.9
Muffin Scale Hopper (each of 4 Muffin Scale Hoppers)	250.0	15,000.0	7.50	15.8
Bread Scale Hopper (each of 3 Bread Scale Hoppers)	250.0	15,000.0	7.50	15.8

* Each dry ingredient storage silo has a maximum batch filling rate of 556 lbs/minute, based on truck unloading of 50,000 lb of flour over 90 minutes.

** Each use bin has a maximum batch filling rate of 325 lbs/minute.

*** Each scale hopper has a maximum batch filling rate of 250 lbs/minute.

The use of the filter units will ensure compliance with each of the limits above.

**Appendix A: Emissions Calculations
Natural Gas Combustion Emissions
from the Insignificant Units**

**Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Emission Unit Description (ID)
1.00	8.76	Auxillary Boiler (002)
0.54	4.73	Process Heater (003)
0.30	2.63	Domestic Water Heater (004)
17.50	153.30	Space Heaters (005 through 009) @ 3.50 MMBtu/hr, each
1.32	11.56	Space Heaters (010 through 020) @ 0.12 MMBtu/hr, each
3.00	26.28	Catalytic Oxidizer (029)
3.50	30.66	Catalytic Oxidizer (047)
27.16	237.92	

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	0.23	0.90	0.90	0.07	11.90	0.65	9.99

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology:

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutant Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Potential Emission in tons/yr	2.498E-04	1.428E-04	8.922E-03	2.141E-01	4.045E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Potential Emission in tons/yr	5.948E-05	1.309E-04	1.665E-04	4.521E-05	2.498E-04

Total Combined HAPs: 0.22

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

Greenhouse Gas Emissions

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
Potential Emission in tons/yr	14,275	0.27	0.26
Summed Potential Emissions in tons/yr	14,275.83		
CO2e Total in tons/yr	14,362.17		

Methodology:

The N2O Emission Factor for uncontrolled is 2.2.
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.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

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

Company Name: Allen Foods Inc.
Address City IN Zip: 53075 Frederic Dr., Elkhart, IN 46514
Permit Number: F039-29392-00643
Revision No.: F039-32174-00643
Reviewer: Hannah L. Desrosiers

Paved Roads at Industrial Site

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

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Personal Car/Truck	60	2	120.0	1.0	120.0	10,000	1.894	227.3	82,954.5
Semitrailer Truck (ingredients in)	5	1	5.0	1.0	5.0	10,000	1.894	9.5	3,456.4
Semitrailer Truck (product out)	24	1	24.0	1.0	24.0	10,000	1.894	45.5	16,590.9
Totals			149.0		149.0			282.2	1.03E+05

Average Vehicle Weight Per Trip = 1.0 tons/trip
Average Miles Per Trip = 1.89 miles/trip

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

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	1.0	1.0	1.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m ² = silt loading value for paved roads (AP-42 Table 13.2.1-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = $E * [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext = $Ef * [1 - (p/4N)]$
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.087	0.017	0.0043	lb/mile
Mitigated Emission Factor, Eext =	0.080	0.016	0.0039	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Personal Car/Truck	3.61	0.72	0.18	3.30	0.66	0.16
Semitrailer Truck (ingredients in)	0.15	0.03	0.01	0.14	0.03	0.01
Semitrailer Truck (product out)	0.72	0.14	0.04	0.66	0.13	0.03
Totals	4.48	0.90	0.22	4.10	0.82	0.20

Methodology

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

Abbreviations

PM = Particulate Matter PM10 = Particulate Matter (<10 um) PM2.5 = Particle Matter (<2.5 um) PTE = Potential to Emit

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

**Appendix B
Best Available Control Technology (BACT) Analysis Determination**

Source Background and Description

Source Name:	Allen Foods, Inc.
Source Location:	53075 Frederic Drive, Elkhart, IN 46514
County:	Elkhart
SIC Code:	2051(Bread and Other Bakery Products, Except Cookies and Crackers)
Operation Permit No.:	F039-29392-00643
Operation Permit Issuance Date:	March 30, 2012
Significant Permit Revision No.:	F039-32174-00643
Permit Reviewer:	Hannah L. Desrosiers

Background Information

On August 2, 2012, the Office of Air Quality (OAQ) received an application from Allen Foods, Inc. related to a modification to its existing stationary commercial bakery. Allen Foods, Inc. proposes to construct a new bun line, including a natural gas-fired oven and one (1) proof box.

The following new emission unit will be constructed after January 1, 1980, has the potential to emit volatile organic compounds greater than twenty-five (25) tons per twelve (12) consecutive month period and is not regulated under any other rule in 326 IAC 8. Pursuant to the provisions of 326 IAC 8-1-6 Best Available Control Technology, an analysis for VOC was performed for this unit:

- (b) One (1) Bun Line, identified as Line 048, approved for construction in 2012, with a maximum throughput capacity of 4.60 tons of baked product per hour, consisting of:
 - (1) One (1) natural gas direct-fired baking oven, identified as emission unit 048, with a maximum heat input capacity of 8.40 MMBtu per hour, with VOC emissions controlled by one (1) 3.0 MMBtu/hr natural gas-fired catalytic oxidizer, identified as emission unit 029, and exhausting through one (1) vent (S17); and
 - (2) One (1) proof box, identified as Line 048 Proof Box.

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

Summary of the Best Available Control Technology (BACT) Process

BACT is a mass emission limitation based on the maximum degree of reduction for each regulated NSR pollutant emitted that is achievable on a case-by-case basis. The BACT evaluation process considers the application of available control options, including control technologies, the use of lower-emitting materials/processes and work practices, and operational limitations, and takes into account the energy, environmental, and economic impacts of the control options on the source.

Federal guidance on BACT requires an evaluation that follows a "top down" process, consisting of five (5) steps. The Office of Air Quality (OAQ) makes BACT determinations by following the five (5) steps as outlined below.

Step 1: Identify Potential Control Options

The first step is to identify potentially “available” control options for each emission unit and for each pollutant under review. Available control options should consist of control technologies with a potentially practical application to the emissions unit in question, including lowest achievable emission rate (LAER) technologies and controls applied to similar source categories. Available control options may also include lower-emitting materials/processes and work practices, and operational limitations. Although innovative technologies may be included as a potentially available control option, there is no requirement in the State or Federal regulations mandating innovative controls be evaluated in Step 1 or used as BACT.

Step 2: Eliminate Technically Infeasible Options

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

Step 3: Rank the Remaining Control Options by Control Effectiveness

The third step is to rank the control options not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. If the top option is selected as BACT, and there are no significant environmental impacts, then the BACT Review ends with selection of the top option as BACT. If the top option is not selected as BACT, then each of the ranked alternatives are reviewed in terms of environmental, energy, and economic impacts specific to the proposed modification. If the analysis determines that an evaluated alternative is not appropriate as BACT due to any of the impacts, then the next most effective is evaluated. This process is repeated until a control alternative is chosen as BACT. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

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

The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. If the top option is selected as BACT, and there are no significant environmental impacts, then the BACT Review ends with selection of the top option as BACT. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. For the technologies determined to be feasible, there may be several different limits that have been set as BACT for the same control technology. The permitting agency has to choose the most stringent limit as BACT unless the

applicant demonstrates in a convincing manner why that limit is not feasible. The final BACT determination would be the technology with the most stringent corresponding limit that is economically feasible. BACT must, at a minimum, be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.

VOC BACT Analysis

Step One: Identify All Potentially Available Control Technologies

Based on information reviewed for this BACT determination, the following potentially available control technologies were identified for controlling VOC emissions from new Bun Line 048:

(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, and as with the thermal oxidizers, fume preheating devices are commonly used to minimize operating costs. 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. Catalytic systems are usually limited to 1100-1300°F outlet temperatures, which limits VOC inputs to a maximum of 25% of Lower Explosive Limit (LEL). 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 bakery oven.

(1) Precious Metal Type (Platinum, Palladium, etc.)

Precious metals catalyst chambers are usually constructed of a ceramic or metallic substrate with the catalyst applied to the substrate. The catalyst assembly is stationary. These catalysts are highly efficient in a clean state but are subject to deactivation by several mechanisms. Sulfur, phosphorus, halogens, bismuth and heavy metals such as zinc, lead, arsenic, antimony, mercury, iron oxide, tin, and silicon can poison the catalyst bed in a non-reversible manner. A thorough understanding of the VOC constituents is necessary to apply this type of control device.

(2) Non-Precious Metal Type (Chromium, Manganese, etc.)

These systems are usually less susceptible to poisoning and deactivation, but require larger amounts of catalyst. These are usually in bulk form, applied to a ceramic substance and are arranged on a grid or screen. Catalyst beds are usually fixed relative to fume flow; however, there are fluidized bed types that negate the blinding by organic solids. The VOC constituents must be known to apply this control device.

Note: Allen Foods, Inc., has proposed to use an existing catalytic oxidizer (029) to control VOC emissions from the baking oven 048. The existing catalytic oxidizer (029) is currently being used to control VOC emissions from the existing baking oven 028 in order to comply with 326 IAC 8-1-6 (BACT),

(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 a 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. VOC destruction efficiencies greater than 98% are achievable under certain operating conditions (see 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 oven.

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.

(1) Direct Flame:

A direct flame thermal oxidizer consists of only a combustion chamber with no heat recovery equipment.

(2) Recuperative Thermal Oxidizer:

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.

(3) Regenerative Thermal Oxidizer:

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.

(c) Wet Packed Bed Scrubber:

A wet packed bed scrubber is an absorption system in which a waste gas stream interacts with a scrubbing liquid inside a contact chamber containing a bed of packing media. The scrubber strips 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 provided by vendors, a wet packed bed scrubber can achieve a VOC removal efficiency of at least 95% on a consistent basis under normal operational conditions for a typical bakery oven.

(d) Bio-filtration:

Bio-filtration systems utilize living organisms to decompose vapor organic compounds. The bio-filtration system consists of large beds of organic material, such as wood chips, which are continually irrigated such that each piece of bed material is covered with a thin film of water. The organisms live in the film and use the organic contaminants as a food source. The rate of degradation of the VOC in the film layer is a function of each specific compound's critical concentration and the biological activity in the film, as well as diffusion of the VOC through the bed.

The rate of the biodegradation process as well as diffusion limitations make these systems best suited to very low concentration vent streams, particularly odorous gas streams. Control efficiencies are dependent upon bed temperatures, humidity, and VOC concentration to ensure continued growth of the microorganisms. A common problem with bio-filter control efficiency is partial or complete "death" of the bed that can occur should any of these parameters or a variation in the VOC content occur. Large flow rates require huge volumes of bed material, in some instances requiring the construction of entire buildings strictly to contain the necessary volume of bedding.

(e) Carbon Adsorption:

Carbon adsorption is a process by which VOC is retained on a granular carbon surface, which is highly porous and has a very large surface-to-volume ratio. Carbon adsorption systems can operate in two phases: adsorption and desorption. Adsorption is rapid and removes most of the VOC in the stream. Eventually, the adsorbent becomes saturated with the vapors and the 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 adsorbate (VOC vapors) from the adsorbent, and the adsorbate and regenerated adsorbent can be recovered for reuse or disposal. Non-regenerative systems require the removal of the spent adsorbent and replacement with fresh adsorbent.

(f) Condensation System:

Condensation is the process by which the temperature of the waste gas stream is lowered to below the dew points of the contaminants in the waste gas, causing a phase change from gas to liquid for the volatile constituents. The liquid is collected, and the concentration of the volatile constituent that was removed in the condensation step is reduced from the exhaust gas. A refrigeration condenser normally provides a VOC control efficiency greater than 90%. This technology is particularly applicable when concentration of VOCs in the gas stream is greater than one percent (1%).

Step Two: Eliminate Technically Infeasible Control Options

To be considered technically feasible, a control technology must either be successfully demonstrated on a unit or, if not demonstrated, then be "available and applicable". A technology is considered "available" if it can be obtained by the applicant through commercial channels. An available technology is considered "applicable" if it can reasonably be installed and operated on the unit in question.

The feasibility of each of the potentially applicable control options identified is evaluated below.

- (a) Based on the information reviewed for this BACT determination, the use of carbon adsorption is infeasible because fats and oils in the bakery oven exhaust clog carbon pores. In addition, the ethanol is difficult to strip from the carbon.
- (b) 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 bakery oven exhaust. In addition, the fats and oils contained in the exhaust reduce the control efficiency and create sanitation concerns.
- (c) 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 baking oven would inhibit microbiological activities. The outlet temperature of the oven 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.

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/ Location	Year Issued	Process Description	Control Device	BACT Emission Limits/Requirements	Reference
Hartford Bakery, Inc Evansville, IN	2012	Bun Production Line (Line 3)	None	VOC emission shall be limited to 46.7 tons per twelve (12) consecutive month period. 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).	RBLC ID: IN-0148 Indiana Part 70 Significant Source Modification SSM 163-31953-00040
Maplehurst Bakeries, Inc. Brownsburg, IN	2012	Donut Fryer 6 (Donut Production Line - Moline VI)	None	VOC emission shall be limited to 40.1 tons per twelve (12) consecutive month period. 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).	RBLC ID: IN-0134 Indiana Part 70 Significant Source Modification SSM 063-31357-00031
Maplehurst Bakeries, Inc. Brownsburg, IN	2012	Donut Fryer 8 (Donut Production Line - Moline VIII)	None	VOC emission shall be limited to 60.7 tons per twelve (12) consecutive month period. 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).	RBLC ID: IN-0134 Indiana Part 70 Significant Source Modification SSM 063-31357-00031
Allen Foods, Inc. Elkhart, IN	2012	Bread Line Bakery Oven/ Proof Box	Catalytic Oxidizer	VOC emissions from the bread 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 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).	RBLC ID: IN-0124 Indiana Federally Enforceable State Operating Permit F039-29392-00643

Company/ Location	Year Issued	Process Description	Control Device	BACT Emission Limits/Requirements	Reference
Allen Foods, Inc. Elkhart, IN	2012	Two (2) English Muffin Lines Bakery Oven/ Proof Box	Catalytic Oxidizer	<p>VOC emissions from the two (2) english muffin oven shall be controlled by a catalytic oxidizer.</p> <p>Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.</p> <p>VOC emissions shall not exceed 1.52 lbs/hr.</p> <p>The source shall operate the proof box in accordance with manufacturer's and operating specifications.</p> <p>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).</p>	<p>RBLC ID: IN-0124</p> <p>Indiana Federally Enforceable State Operating Permit</p> <p>F039-29392-00643</p>
The Kroger Company - Indianapolis Bakery Indianapolis, IN	2012	Bakery Oven (Bun Line BU4)	Catalytic Oxidizer	<p>VOC emissions from the bun oven shall be controlled by a catalytic oxidizer.</p> <p>Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.</p> <p>VOC emissions from the bun oven shall not exceed 2.75 pounds per hour.</p> <p>The source shall operate the proof box in accordance with manufacturer's and operating specifications.</p> <p>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).</p>	<p>Indiana Federally Enforceable State Operating Permit Significant Permit Revision</p> <p>F097-29287-00161</p>
White Castle Systems, Inc. Rensselaer, IN	2011	Bakery Oven/ Proof Box	Catalytic Oxidizer	<p>VOC emission from the bread baking oven shall be controlled by a catalytic oxidizer.</p> <p>Overall VOC efficiency of the catalytic oxidizer shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.</p> <p>VOC emissions from the bread oven shall not exceed 0.54 lbs/hr</p> <p>The source shall operate the proof box in accordance with manufacturer's and operating specifications.</p> <p>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).</p>	<p>RBLC ID: IN-0128</p> <p>Indiana Minor Source Operating Permit</p> <p>M073-29819-00039</p>

Company/ Location	Year Issued	Process Description	Control Device	BACT Emission Limits/Requirements	Reference
Alpha Baking Co., Inc. LaPorte, IN	2011	Bakery Ovens Proof Boxes	Catalytic Oxidizer	VOC emission from the baking ovens 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).	RBLC ID: IN-0132 Indiana Federally Enforceable State Operating Permit F091-28222-00135
Harlan Bakeries, Inc. Avon, IN	2008	Bakery Oven	Catalytic Oxidizer	VOC emissions from the bagel 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 shall not exceed 0.36 lbs/hr.	Indiana Minor Source Operating Permit M063-24103-00059
The Kroger Company - Indianapolis Bakery Indianapolis, IN	2008	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 0.55 pounds per hour.	Indiana Federally Enforceable State Operating Permit Significant Permit Revision F097-123672-00161
Allen Foods, Inc. Elkhart, IN	2006	Bakery Oven	Catalytic Oxidizer	VOC emissions from the bread 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 shall not exceed 2.29 lbs/hr.	RBLC ID: IN-0120 Indiana Federally Enforceable State Operating Permit F039-22633-00643
Holsum of Fort Wayne, Inc. Fort Wayne, IN	2005	Bakery Oven	None	VOC emission shall be limited to 60 tons per twelve (12) consecutive month period	Indiana Part 70 Significant Source Modification SSM 091-27352-00106
The Kroger Company - Indianapolis Bakery Indianapolis, IN	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 F097-16909-00161
Maple Leaf Bakery CA	1998	Bakery Oven	Catalytic Oxidizer	92% Destruction Removal Efficiency Minimal 600°F Operating Temperature	RBLC ID: CA-0854 Permit No.: 0473-170
Freund Baking Company CA	1997	Bakery Oven	Catalytic Oxidizer	95.4% Destruction Removal Efficiency	RBLC ID: CA-0859 Permit No.: 328570

Company/ Location	Year Issued	Process Description	Control Device	BACT Emission Limits/Requirements	Reference
Interstate Brands Corporation Indianapolis, IN	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 F097-7413-00171
Holsum Bakery, Inc. AZ	1996	Bakery Oven	Quencher / Scrubber	81% Control Efficiency 49.9 tons per year	RBLC ID: AZ-0029 Permit No.: 95-0432
KBI, Inc. Morristown, IN	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 F145-15375-00037
Certified Grocers of California, Ltd CA	1990	Bakery Oven	Catalytic Afterburner	95% Control Efficiency	RBLC ID: CA-0468 Permit Nos.: 228274, 219899
Automatic Rolls of Virginia, Inc. VA	1988	Bakery Oven	None	13.80 pounds per hour 23.00 tons per year	RBLC ID: VA-0110 Permit No.: (7)40761

Step Three: Rank Feasible Technologies

The remaining technically feasible options for controlling VOC emissions from the natural gas-fired baking oven (048) are as follows (listed in descending order of most technically feasible):

Options for VOC Control	Control Efficiency (%)
Existing Catalytic Oxidizer (029)	95%
Thermal Oxidizer	95%
Wet Packed Bed Scrubber	95%

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 of the top control alternatives for controlling VOC emissions from the bread baking line (048) was performed as discussed below.

(a) Thermal Oxidizer:

The costs associated with installing a thermal oxidizer would be significantly higher than that of using the existing catalytic oxidizer (029), which would achieve the same level of control.

(b) Scrubber:

The costs associated with installing a wet packed bed scrubber and the associated increased water usage would be significantly higher than that of using the existing catalytic oxidizer (029), which would achieve the same level of control.

(c) Catalytic Oxidizer:

The costs associated with using the existing catalytic oxidizer (029) would be minimal compared to the cost of installing a thermal oxidizer or a scrubber. The source has proposed to use the existing 3.0 MMBtu/hr natural gas-fired catalytic oxidizer (029), currently controlling VOC emissions from the Bread Line (028) oven, to control VOC emissions from the bun line's natural gas-fired baking oven (048).

(d) Proof Box Modifications:

The costs associated with making any modifications to the proof box associated with the new Bun Line (048), or installing any additional controls to control emissions from the proof box, were not evaluated as part of this BACT review. During the BACT review for Bread Line 028, it was determined to be economically infeasible to modify a proof box to control VOC emissions (See TSD Appendix B-1 for FESOP Renewal No. 039-29392-00643). Therefore, the cost associated with the control of the Bun Line 048 proof box is assumed to be economically infeasible.

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 source proposes that requiring add-on controls for the proof boxes would place them at a significant economic disadvantage in the baking industry. The source proposes to use the existing catalytic oxidizer (029) to control emissions from the bun line baking oven (048), to operate the proof box associated with the line in accordance with the manufacturer design and operating specifications, and to perform the appropriate cleaning operations of the Line 048 proof box to ensure proper operation and minimize potential emissions.

Step Five: Select BACT

IDEM has determined that the best available control technology (BACT) to control VOC emissions from the Bun Line (048) shall be as follows:

Baking Oven

- (a) The VOC emissions from the Bun Line (048) shall be controlled by a catalytic oxidizer.
- (b) The minimum overall VOC control efficiency for the catalytic oxidizer, including capture efficiency and destruction efficiency, shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.
- (c) The combined VOC emissions from the bread line baking oven (028) and the bun line baking oven (048), jointly controlled by catalytic oxidizer 029 and exhausting through vent S17, shall not exceed 4.30 lbs/hr.

The above emission limit was calculated as follows:

Existing Bread Line (028)

$$\begin{aligned} \text{Emission Limit (lbs/hr)} &= \text{PTE (tons/yr)} * (1 - \text{Control Efficiency}) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) \\ &= (200.27 \text{ tons/yr}) * (1 - 0.95) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) = \underline{2.29 \text{ lbs/hr}} \end{aligned}$$

NEW Bun Line (048)

$$\begin{aligned} \text{Emission Limit (lbs/hr)} &= \text{PTE (tons/yr)} * (1 - \text{Control Efficiency}) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) \\ &= (176.19 \text{ tons/yr}) * (1 - 0.95) * (2000 \text{ lbs/ton}) * (1 \text{ yr}/8760 \text{ hrs}) = \underline{2.01 \text{ lbs/hr}} \end{aligned}$$

Combined Limit (catalytic oxidizer 029)

$$\begin{aligned} \text{Emission Limit (lbs/hr)} &= \text{Existing Bread Line limit (lbs/hr)} + \text{NEW Bun Line limit (lbs/hr)} \\ &= 2.29 \text{ lbs/hr} + 2.01 \text{ lbs/hr} = \underline{\mathbf{4.30 \text{ lbs/hr}}} \end{aligned}$$

Proof Box

- (a) The source shall operate Bun Line 048 (consisting of the baking oven and proof box) in accordance the manufacturer's design and operating specifications.
- (b) In order to ensure proper operation and to minimize potential emissions, the source shall perform proof box cleaning operations for the proof box associated with Bun Line 048, on a weekly cleaning schedule and perform at a minimum, the following operations, or their equivalent, in accordance with their Sanitation Standard Operating Procedure:
 - (1) Weekly Cleaning Procedure:
 - (A) Knock down all dough and residue from interior framework;
 - (B) Sweep floor;
 - (C) Use floor scraper for excess debris;
 - (D) Foam floor and scrub with brush;
 - (E) Rinse 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 Hannah L. Desrosiers 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) 233-9327 or toll free at 1-800-451-6027 extension 3-9327.



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

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

TO: Wayne Jones
Allen Foods, Inc.
53075 Frederic Drive
Elkhart, IN 46514

DATE: January 8, 2013

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
First Significant Revision to FESOP
039-32174-00643

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Merritt Dilts, Responsible Official
Kara J. Humes, Entech Engineering, Inc.
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07



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

January 8, 2013

TO: Elkhart Public Library

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

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

Applicant Name: Allen Foods, Inc.
Permit Number: 039-32174-00643

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

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

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	PWAY 1/8/2013 Allen Foods, Inc 039-32174-00643 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	 Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		Wayne Jones Allen Foods, Inc 53075 Frederic Drive Elkhart IN 46514 (Source CAATS)									
2		Merritt Dilts Plant Manager Allen Foods, Inc 53075 Frederic Drive Elkhart IN 46514 (RO CAATS)									
3		Elkhart City Council and Mayors Office 229 South Second Street Elkhart IN 46516 (Local Official)									
4		Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 (Health Department)									
5		Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 (Local Official)									
6		Ms. Kara J. Humes Entech Engineering, Inc. 500 North Centre Street Pottsville PA 17901 (Consultant)									
7		Elkhart Public Library 3429 E. Bristol St. Elkhart IN 46514 (Library)									
8											
9											
10											
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 Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--